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# 2017 3VA IEC Molded Case Circuit Breakers

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usa.siemens.com/3VA

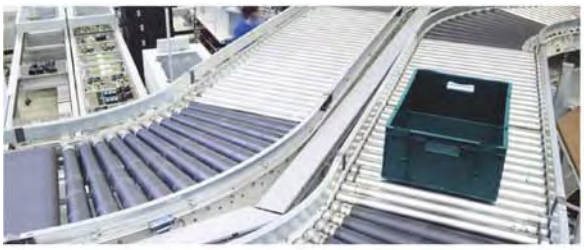
# 3VA Molded Case Circuit Breakers

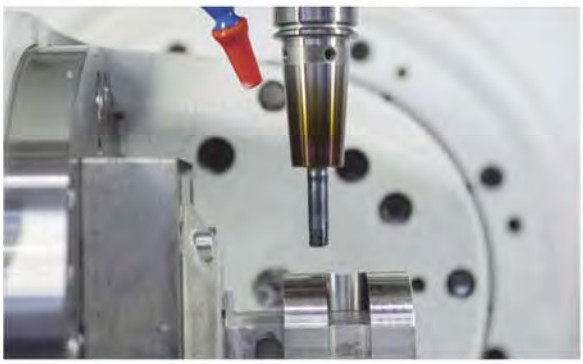

3VA Molded Case Circuit Breakers · 2017

# At home in many applications

Whether in industrial applications, infrastructure or buildings – our new 3VA molded case circuit breakers offer safe, flexible and efficient application options for low-voltage power distribution.

3VA1 molded case circuit breakers for standard applications





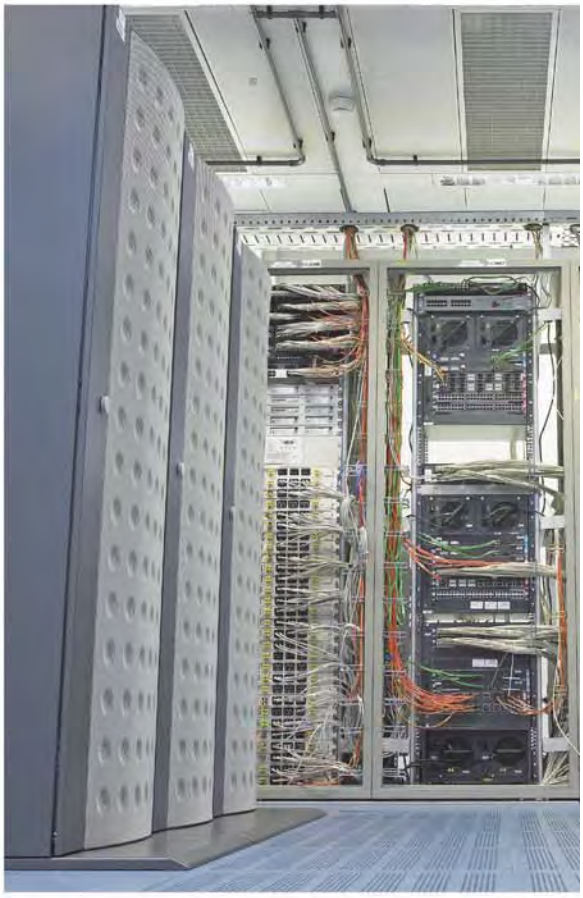
3VA1 molded case circuit breakers for line protection
$I_n$: 16 A ... 250 A

3VA1 molded case circuit breakers for line protection, 1-pole and 2-pole, e.g. as main switch
$I_n$: 16 A ... 160 A

3VA1 switch disconnectors in industrial applications
$I_n$: 63 A ... 250 A

3VA1 molded case circuit breakers for starter protection
$I_n$: 32 A ... 200 A

Communication-capable 3VA2 molded case circuit breakers with integrated metering function for data centers or industrial applications
$I_n$: 25 A ... 630 A



3VA2 molded case circuit breakers for selective applications

3VA2 molded case circuit breakers for motor/starter protection
$I_n$: 25 A ... 500 A

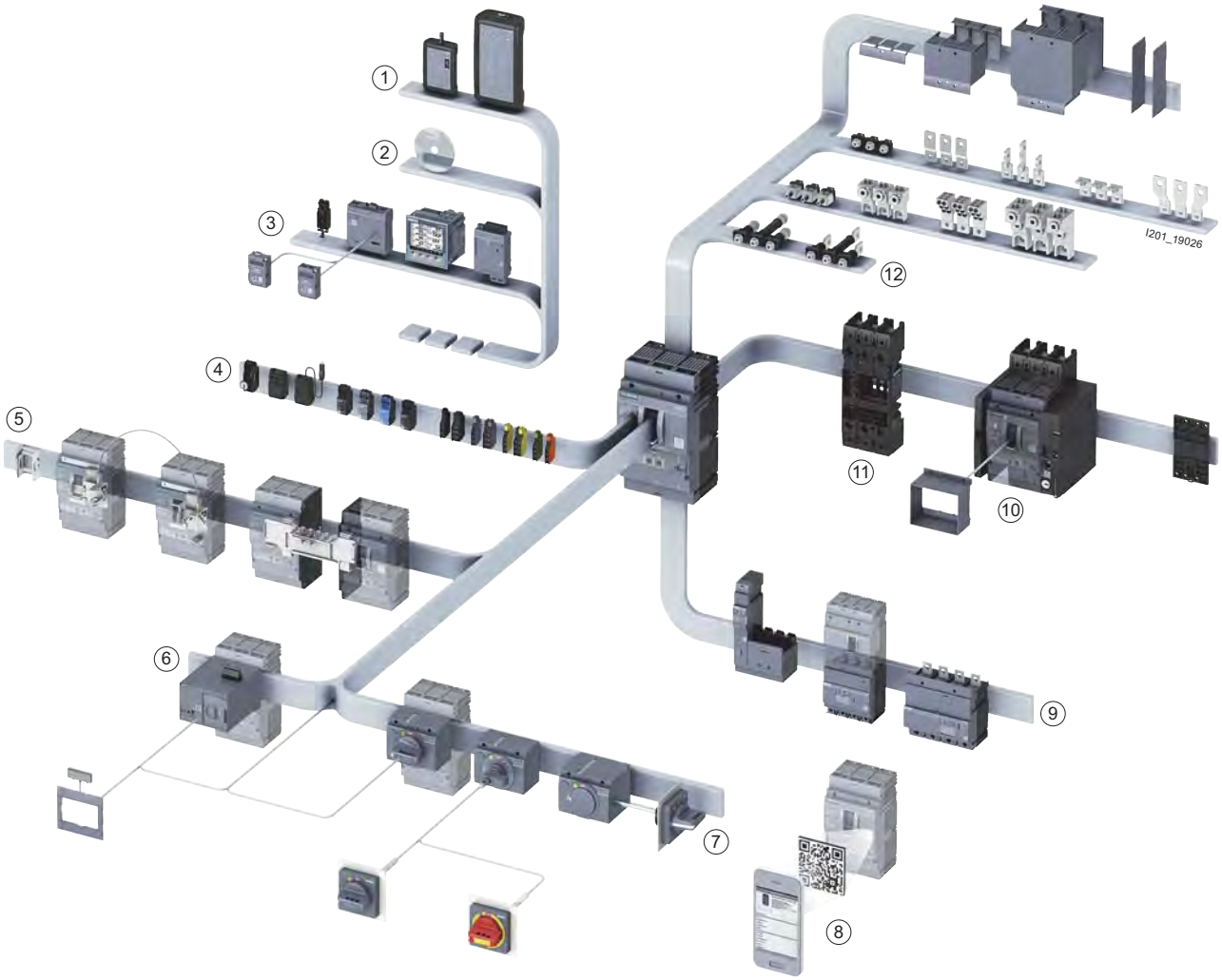
# A complete system designed with you in mind


The 3VA molded case circuit breaker is a well thought-out, modular and highly variable system which is specifically designed to provide optimum support in every process step – from engineering to daily operation of the electrical power distribution system.

The 3VA molded case circuit breaker – a complete system designed with you in mind. It offers high flexibility, efficiency and safety – and enables you to

- Find solutions – independently of individual requirements
- Minimize efforts – from planning to installation and maintenance
- Increase transparency – across all energy-relevant data
- Ensure system availability – preventively and reliably

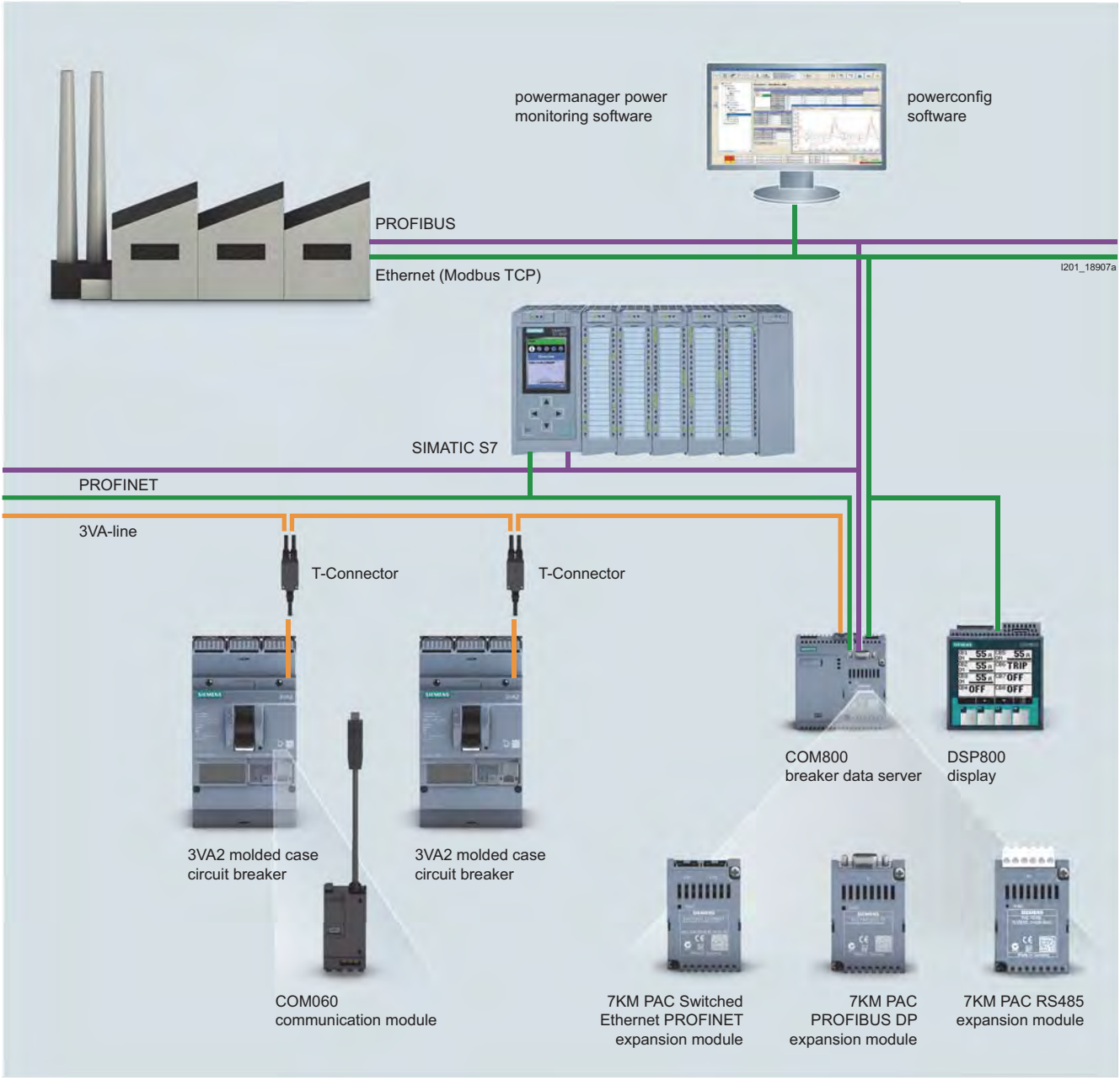
# Wide range of accessories for flexible use




1 Test devices
2 powerconfig software
3 Communication
4 Internal accessories
5 Locking and interlocking
6 Motor operator
7 Manual operators
8 Knowledge Manager
9 Residual current devices
10 Draw-out technology
11 Plug-in technology
12 Connection technology

The 3VA molded case circuit breakers ensure the reliable protection of people and property as integral components of efficient power distribution systems. With a wide range of accessories they can be adapted flexibly, quickly and easily to individual requirements.

# High transparency thanks to flexible communication options




The communication-capable 3VA molded case circuit breakers can be connected to higher-level management systems by means of various bus systems.

In addition, the Electronic Trip Unit (ETU) of the 8-series can measure voltage, power and energy and forward the values by means of communication modules according to requirements.

Similarly, the communication of status, error and alarm messages is possible via internal auxiliary switches – for efficient operation and optimum system monitoring.

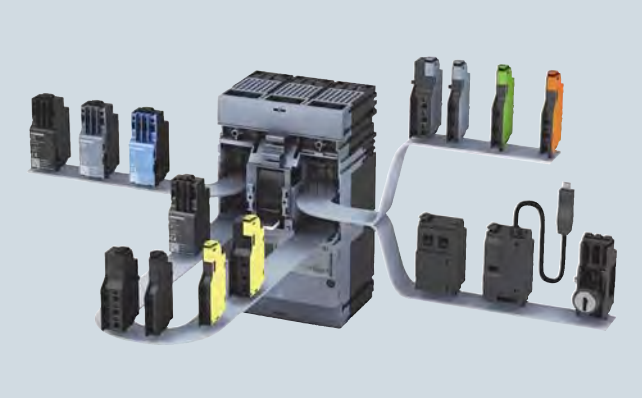
# Highlights


Integrated data collection

The ETUs of the 8-series collect and transmit energy data – similar to the 7KM PAC measuring devices.


Modern design

The elegant appearance and intuitive handling are immediately convincing.



More functionality through variable internal accessories

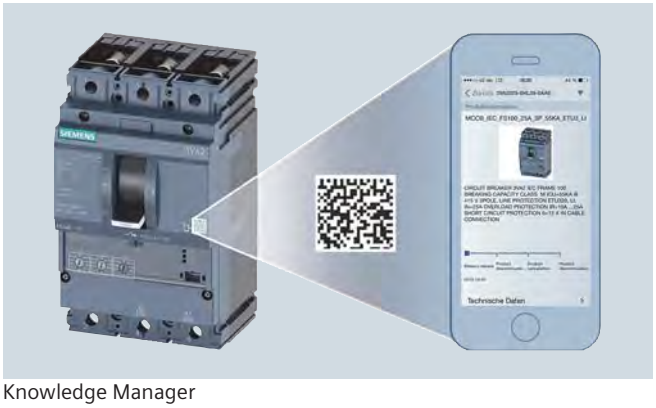
An extensive range of internal accessories is available for the 3VA molded case circuit breakers: many different functions are possible with the numerous auxiliary switches and alarm switches.


Elegant and safe

As an option, the manual operators can be equipped with an illumination kit – for clear indication of the switching position in all visibility conditions.


Clear indication

The circuit breaker position in the draw-out unit is colored and immediately recognizable.



Knowledge Manager

Technical information about installation, parameterization or maintenance can be called up directly from the system by QR code on a smartphone.

# Notes




**For further technical product information:**

Siemens Industry Online Support:
www.siemens.com/lowvoltage/product-support

→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

## Overview

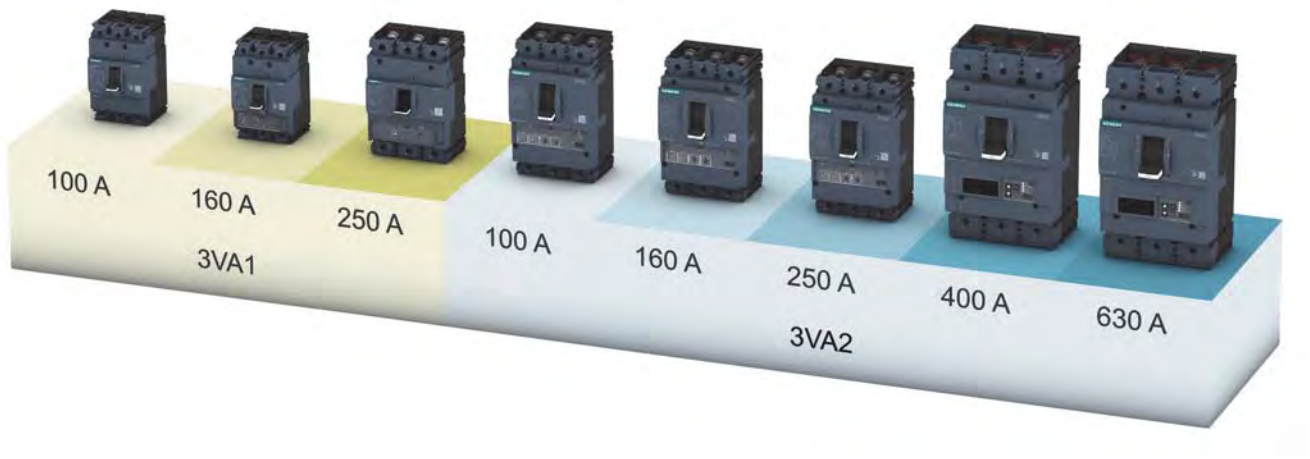
### *Sizes*

The integrated 3VA portfolio consists of two different series of molded case circuit breakers in eight different rated operational current versions (sizes).

The new 3VA molded case circuit breakers set new standards in flexibility and the variety of modular accessories available. Standardized accessories suitable for use with several sizes of circuit breaker from all the 3VA ranges help to cut costs and save time.

The new 3VA1 molded case circuit breakers are available in 1 to 4-pole versions (3VA1 160 A) or in 3 and 4-pole versions (3VA1 100 A and 250 A). The new 3VA2 molded case circuit breakers are available in 3 and 4-pole versions.

The circuit breakers are available with rated operational currents ranging from 16 A to 630 A and rated voltages up to 690 V, depending on the series and size.




### *3VA1 molded case circuit breakers*

The new 3VA1 molded case circuit breakers reliably perform all the tasks required for line protection.

Features

The key features of the 3VA1 series are:

- Compact design
- Depending on size: 1-pole to 4-pole versions
- Depending on size: breaking capacities of 16 kA … 70 kA at 415 V, 3 or 4-pole breakers and 36 kA at 240 V,1-pole breakers
- Fixed-mounted, plug-in version (depending on size)
- Thermal-magnetic trip units
- AC/DC applications
- No derating up to +50 °C
- Modular and easy-to-fit internal accessories with diverse functions
- Uniform accessories platform across all 3VA molded case circuit breakers

Compact dimensions

Thanks to a mounting depth of 70 mm and a cover size of 45 mm, the 3VA1 molded case circuit breakers of sizes 100 A, 160 A and 250 A are predestined for protecting cables and lines in the plant area, especially for the electrical installation area. For these applications, there is also a wide range of accessories available such as adapters for installation on standard mounting rails, as well as residual current devices (RCD310 (up to 160A) and RCD510) that can be side-mounted.

Thermal-magnetic trip unit

A thermal-magnetic principle trip unit is the basic trip unit for providing overload and short-circuit protection. This has been developed for implementing economical, cost-efficient installations up to 250 A. It is suitable for use in three-phase networks, AC networks, 400 Hz applications, and with DC currents.

***3VA2 molded case circuit breakers***

The new 3VA2 molded case circuit breakers reliably perform all the tasks required for line protection, generator protection, motor protection and protection of starter combinations.

This series is designed for applications with increased requirements:

- Increased breaking capacity
- Very good selective protection
- Integrated metering function
- Connection to a fieldbus communication system

Features

The most important features of the 3VA2 series are:

- Compact dimensions
- 3 and 4-pole versions
- Four breaking capacity classes from 55 kA to 150 kA
- Fixed-mounting, plug-in technology, draw-out technology
- Depending on size: selective protection response in rated operational current interval 1 : 2.5
- Electronic Trip Units
- Retrofittable communication for ETU 5-series and 8-series
- Depending on the ETU: integrated metering function
- AC applications
- No derating up to +50 °C
- Modular and easy-to-fit internal accessories with diverse functions
- Uniform accessories platform across all 3VA molded case circuit breakers

Compact dimensions with function expansions

In addition to its expanded functionality, the 3VA2 molded case circuit breaker also comes with compact dimensions for fixed mounting, as a plug-in version and a draw-out version.

A cover size of 70 mm for the door cutout and a complete selection of breaking capacity classes from 55 kA to 150 kA at 415 V AC provide the necessary flexibility for planning.

Despite its compact size, the circuit breaker offers the following benefits:

- Extremely high breaking capacity
- Extremely good selectivity
- Electronic trip units, versions with and without integrated metering function and optimal fieldbus communication interface

Selective contact system

With its contact system, the 3VA2 molded case circuit breaker is designed for fast selectivity tripping. The selective contact system ensures the following:

- Dynamic instantaneous short-circuit range
- High breaking capacity
- Selective protection response of the molded case circuit breakers in relation to each other
- Selective protection response of the molded case circuit breakers in relation to other protection devices such as downstream low-voltage fuses, etc.

Electronic Trip Units (ETUs)

The current sensor of the 3VA2 comprises an iron-cored transformer for the internal power supply and a Rogowski coil for precise current measurement. Each transformer can be optimized accordingly for its specific task. Thanks to the high accuracy of current measurement, the 3VA2 molded case circuit breaker is suitable for power/energy measurement. In addition, finer adjustment of ground fault current monitoring is possible.

The Electronic Trip Units (ETUs) provide the following protection functions:

- Overload protection L ("L" = Long-time delay)
- Short-time delayed short-circuit protection S ("S" = Short-time delay) for time-selective response in case of a short-circuit
- Instantaneous short-circuit protection I ("I" = Instantaneous)
- Protection of the neutral conductor N against overload and short-circuit ("N" = Neutral)
- Protection against residual currents to ground G ("G" = Ground fault)
- ELISA:
  Improved selective grading of downstream LV HRC fuses and upstream molded case circuit breakers by means of a special form of current-time characteristic

Energy management and communication

The Electronic Trip Units (ETUs) provide the following energy management and communication functions:

- Metering functions
- Communication
- Flexible, local, digital inputs and outputs via the EFB300 external function box
- Software commissioning support with powerconfig
- Testing and archiving with the TD300 and TD500 test devices (with powerconfig)





| | | | | | | |
|---|---|---|---|---|---|---|
| Type | | 3VA10 | 3VA11 | | | 3VA12 |
| Number of poles | | 3, 4 | 1 | 2[1] | 3, 4 | 3, 4 |
| **3VA1 molded case circuit breakers for line protection, standard applications** | | | | | | |
| **Electrical characteristics according to IEC 60947-2** | | | | | | |
| Size | | 100 A | 160 A | 160 A | 160 A | 250 A |
| Rated operational current $I_n$ at 50 °C ambient temperature | A | 16 … 100 | 16 … 160 | 16 … 160 | 16 … 160 | 160 … 250 |
| Rated operational voltage $U_e$ AC 50/60 Hz | V | 690 | 240 | 415 | 690 | 690 |
| Rated insulation voltage $U_i$ | V | 800 | 500 | 500 | 800 | 800 |
| Rated impulse withstand voltage $U_{imp}$ | kV | 8 | 8 | 8 | 8 | 8 |
| Use in IT networks | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Frequency | Hz | 0 ... 400 | 0 ... 400 | 0 ... 400 | 0 ... 400 | 0 ... 400 |

| Breaking capacity | | (B) | (N) | (S) | (N) | (S) | (N) | (S) | (N) | (S) | (M) | (H) | (S) | (M) | (H) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rated ultimate short-circuit breaking capacity $I_{cu}$** rms value, according to IEC 60947-2 | | | | | | | | | | | | | | | |
| 220 - 240 V AC / 50/60 Hz | kA | 25 | 36 | 55 | 25 | 36 | 36 | 55 | 36 | 55 | 85 | 100 | 55 | 85 | 100 |
| 380 - 415 V AC / 50/60 Hz | kA | 16 | 25 | 36 | 5 | 6 | 25 | 36 | 25 | 36 | 55 | 70 | 36 | 55 | 70 |
| 440 V AC / 50/60 Hz | | 8 | 16 | 25 | -- | -- | -- | -- | 16 | 25 | 36 | 55[2] | 25 | 36 | 36 |
| 500 V AC / 50/60 Hz | | On req. | On req. | On req. | -- | -- | -- | -- | On req. | On req. | On req. | On req. | 10 | 15 | 15 |
| 690 V AC / 50/60 Hz | kA | 5 | 5 | 7 | -- | -- | -- | -- | 7 | 7 | 10 | 10 | 7 | 10 | 10 |
| 125 V DC (1 switching pole) | | -- | -- | -- | 16 | 25 | 16 | 25 | -- | -- | -- | -- | -- | -- | -- |
| 250 V DC (2 switching poles) | | 25 | 36 | 55 | -- | -- | 36 | 55 | 36 | 55 | 85 | 100 | 55 | 85 | 100 |
| 500 V DC (3 switching poles) | kA | 25 | 36 | 55 | -- | -- | -- | -- | 36 | 55 | 85 | 100 | 55 | 85 | 100 |
| 600 V DC (4 switching poles) | kA | 8 | 16 | 25 | -- | -- | -- | -- | 16 | 25 | 36 | 55 | 25 | 36 | 55 |
| **Rated operational short-circuit breaking capacity $I_{cs}$** rms value, according to IEC 60947-2 | | | | | | | | | | | | | | | |
| 220 - 240 V AC / 50/60 Hz | kA | 25 | 36 | 55 | 25 | 36 | 36 | 55 | 36 | 55 | 85 | 100 | 55 | 85 | 100 |
| 380 - 415 V AC / 50/60 Hz | kA | 16 | 25 | 36 | 5 | 6 | 25 | 36 | 25 | 36 | 55 | 70 | 36 | 55 | 70 |
| 440 V AC / 50/60 Hz | | 8 | 16 | 25 | -- | -- | -- | -- | 16 | 25 | 36 | 40[2] | 25 | 36 | 36 |
| 500 V AC / 50/60 Hz | | On req. | On req. | On req. | -- | -- | -- | -- | On req. | On req. | On req. | On req. | 10 | 10 | 10 |
| 690 V AC / 50/60 Hz | kA | 5 | 5 | 5 | -- | -- | -- | -- | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 125 V DC (1 switching pole) | | -- | -- | -- | 16 | 25 | 16 | 25 | -- | -- | -- | -- | -- | -- | -- |
| 250 V DC (2 switching poles) | | 25 | 36 | 55 | -- | -- | 36 | 55 | 36 | 55 | 85 | 100 | 55 | 85 | 100 |
| 500 V DC (3 switching poles) | kA | 25 | 36 | 55 | -- | -- | -- | -- | 36 | 55 | 85 | 100 | 55 | 85 | 100 |
| 600 V DC (4 switching poles) | kA | 8 | 16 | 25 | -- | -- | -- | -- | 16 | 25 | 36 | 55 | 25 | 36 | 55 |

✓ Available -- Not available

[1] A side plate must be used if no finger safety can be warranted on the right due to the installation situation (see page 4/33).

[2] $I_n$ 125 A, 160 A: $I_{cu}$ / $I_{cs}$ = 36 kA / 36 kA





| 3VA20 | 3VA21 | 3VA22 | 3VA23 | 3VA24 |
|---|---|---|---|---|
| 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 |

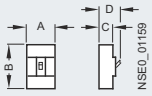
**3VA2 molded case circuit breakers for line protection, selectivity applications**

| 100 A | 160 A | 250 A | 400 A | 630 A |
|---|---|---|---|---|
| 25 ... 100 | 25 ... 160 | 160 ... 250 | 250 ... 400 | 400 ... 630 |
| 690 | 690 | 690 | 690 | 690 |
| 800 | 800 | 800 | 800 | 800 |
| 8 | 8 | 8 | 8 | 8 |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| 50 … 60 | 50 … 60 | 50 … 60 | 50 … 60 | 50 … 60 |

| (M) | (H) | (C) | (L) | (M) | (H) | (C) | (L) | (M) | (H) | (C) | (L) | (M) | (H) | (C) | (L) | (M) | (H) | (C) | (L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | |
| 85 | 110 | 150 | 200 | 85 | 110 | 150 | 200 | 85 | 110 | 150 | 200 | 85 | 110 | 150 | On req. | 85 | 110 | 150 | On req. |
| 55 | 85 | 110 | 150 | 55 | 85 | 110 | 150 | 55 | 85 | 110 | 150 | 55 | 85 | 110 | On req. | 55 | 85 | 110 | On req. |
| 55 | 85 | 110 | 150 | 55 | 85 | 110 | 150 | 55 | 85 | 110 | 150 | 55 | 85 | 110 | On req. | 55 | 85 | 110 | On req. |
| 36 | 55 | 85 | 100 | 36 | 55 | 85 | 100 | 36 | 55 | 85 | 100 | 36 | 55 | 85 | On req. | 36 | 55 | 85 | On req. |
| 2 | 2 | 2 | 24 | 2.5 | 2.5 | 2.5 | 24 | 3 | 3 | 3 | 24 | 5 | 5 | 5 | On req. | 6 | 6 | 6 | On req. |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | | | | | | | | | | | | | | | | |
| 85 | 110 | 150 | 200 | 85 | 110 | 150 | 200 | 85 | 110 | 150 | 200 | 85 | 110 | 150 | On req. | 85 | 110 | 150 | On req. |
| 55 | 85 | 110 | 150 | 55 | 85 | 110 | 150 | 55 | 85 | 110 | 150 | 55 | 85 | 110 | On req. | 55 | 85 | 110 | On req. |
| 55 | 85 | 110 | 150 | 55 | 85 | 110 | 150 | 55 | 85 | 110 | 150 | 55 | 85 | 110 | On req. | 55 | 85 | 110 | On req. |
| 36 | 55 | 85 | 100 | 36 | 55 | 85 | 100 | 36 | 55 | 85 | 100 | 36 | 55 | 85 | On req. | 36 | 55 | 85 | On req. |
| 2 | 2 | 2 | 18 | 2.5 | 2.5 | 2.5 | 18 | 3 | 3 | 3 | 18 | 5 | 5 | 5 | On req. | 6 | 6 | 6 | On req. |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Type | | | | 3VA10 | 3VA11 | 3VA11 | 3VA11 | 3VA12 |
| **3VA1 molded case circuit breakers for line protection, standard applications** | | | | | | | | |
| **Service life (make-break operations)** | | | | | | | | |
| Mechanical | | | | 15000 | 15000 | 15000 | 15000 | 15000 |
| Electrical | | | 380 ... 415 V | 8000 | 8000 | 8000 | 8000 | 8000 |
| Trip units | FTFM | TM210 | | ✓ | ✓ | ✓ | ✓ | -- |
| | ATFM | TM220 | | -- | -- | -- | ✓ | -- |
| | ATAM | TM240 | | -- | -- | -- | ✓ | ✓ |
| | LI | ETU320 | | -- | -- | -- | -- | -- |
| | LIG | ETU330 | | -- | -- | -- | -- | -- |
| | ELISA LI | ETU340 | | -- | -- | -- | -- | -- |
| | LSI | ETU350 | | -- | -- | -- | -- | -- |
| | LSI | ETU550/ETU850 | | -- | -- | -- | -- | -- |
| | LSIG | ETU560/ETU860 | | -- | -- | -- | -- | -- |
| **3VA1 molded case circuit breakers for protecting starter combinations (standards and specifications IEC 60947-4)** | | | | | | | | |
| Rated operational current $I_n$ at 50 °C ambient temperature | | | A | -- | -- | -- | 32 … 125 | 160, 200 |
| **Service life (make-break operations)** | | | | | | | | |
| Mechanical | | | | 15000 | 15000 | 15000 | 15000 | 15000 |
| Electrical | | | 380 ... 415 V | 8000 | 8000 | 8000 | 8000 | 8000 |
| Trip units | AM | TM120M | | -- | -- | -- | ✓ | ✓ |
| | I | ETU310M | | -- | -- | -- | -- | -- |
| | LSI | ETU350M | | -- | -- | -- | -- | -- |
| | LSIG | ETU860M | | -- | -- | -- | -- | -- |
| **Switch disconnectors** | | | | | | | | |
| **Electrical characteristics according to IEC 60947-3** | | | | | | | | |
| Number of poles | | | | -- | -- | -- | 3, 4 | 3, 4 |
| Rated operational current $I_n$ at 50 °C ambient temperature | | | A | -- | -- | -- | 63 … 160 | 250 |
| Rated operational voltage $U_e$ AC 50/60 Hz | | | V | -- | -- | -- | 690 | 690 |
| Rated operational voltage $U_e$ DC | | | V | -- | -- | -- | 500 (3p)/600 (4p) | 500 (3p)/600 (4p) |
| Rated short-circuit making capacity $I_{cm}$ with upstream circuit breaker | | | kA | -- | -- | -- | 70 kA at 415 V | 70 kA at 415 V |
| Permissible rated short-time current $I_{cw}$ | | | ±1s kA | -- | -- | -- | 2 | On request |
| **Dimensions** | | | | | | | | |
|  | A<br>B<br>C<br>D | | mm<br>mm<br>mm<br>mm | 76.2 (3p)/101.6 (4p)<br>130<br>70<br>88 | 25.4<br>130<br>70<br>88 | 50.8<br>130<br>70<br>88 | 76.2 (3p)/101.6 (4p)<br>130<br>70<br>88 | 105 (3p), 140 (4p)<br>158<br>70<br>88 |
| Weight 1-pole Box terminal | | | kg | -- | 0.39 | -- | -- | -- |
| 1-pole Lug terminal | | | kg | -- | 0.35 | -- | -- | -- |
| 2-pole Box terminal | | | kg | -- | -- | 0.68 | -- | -- |
| 2-pole Lug terminal | | | kg | -- | -- | 0.60 | -- | -- |
| 3-pole Box terminal | | | kg | 1.02 | -- | -- | 1.02 | -- |
| 3-pole Lug terminal | | | kg | 0.90 | -- | -- | 0.90 | 1.8 |
| 4-pole Box terminal | | | kg | 1.31 | -- | -- | 1.31 | -- |
| 4-pole Lug terminal | | | kg | 1.15 | -- | -- | 1.15 | 2.3 |
| **General information** | | | | | | | | |
| Standards and specifications | | | | IEC 60947-2, -3, -4 | IEC 60947-2, -3, -4 | IEC 60947-2, -3, -4 | IEC 60947-2, -3, -4 | IEC 60947-2, -3, -4 |
| Utilization category according to IEC 60947-2 | | | | A | A | A | A | A |
| Power and infeed direction | | | | Top and bottom | Top and bottom | Top and bottom | Top and bottom | Top and bottom |
| Standard connection system | | | | Lug terminal<br>Box terminal | Lug terminal<br>Box terminal | Lug terminal<br>Box terminal | Lug terminal<br>Box terminal | Lug terminal<br>-- |
| Isolating features according to IEC 60947 | | | | ✓ | ✓ | ✓ | ✓ | ✓ |

✓ Available -- Not available

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| 3VA20 | 3VA21 | 3VA22 | 3VA23 | 3VA24 |
| **3VA2 molded case circuit breakers for line protection, selectivity applications** | | | | |
| | | | | |
| 20000 | 20000 | 20000 | 15000 | 15000 |
| 12000 | 12000 | 10000 | 6000 | 4000 |
| | | | | |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| **3VA2 molded case circuit breakers for protecting motors/starter combinations (standards and specifications 60947-4-1 acc. to AC-1)** | | | | |
| -- | 25 ... 100 | 160 ... 200 | 250 | 400 ... 500 |
| | | | | |
| 20000 | 20000 | 20000 | 15000 | 15000 |
| 12000 | 12000 | 10000 | 6000 | 4000 |
| | | | | |
| -- | -- | -- | -- | -- |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| | | | | |
| | | | | |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| | | | | |
| 105 (3p)/140 (4p)<br>181<br>86<br>107 | 105 (3p)/140 (4p)<br>181<br>86<br>107 | 105 (3p)/140 (4p)<br>181<br>86<br>107 | 138 (3p)/184 (4p)<br>248<br>110<br>137 | 138 (3p)/184 (4p)<br>248<br>110<br>137 |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- |
| 2.44 | 2.44 | -- | -- | -- |
| 2.29 | 2.29 | 2.41 | 4.3 | 4.3 |
| 3.14 | 3.14 | -- | -- | -- |
| 2.94 | 2.94 | 3.09 | 4.8 | 4.8 |
| | | | | |
| IEC 60947-2, -3, -4 | IEC 60947-2, -3, -4 | IEC 60947-2, -3, -4 | IEC 60947-2, -3, -4 | IEC 60947-2, -3, -4 |
| A | A | A | A | A/B[1)] |
| Top and bottom | Top and bottom | Top and bottom | Top and bottom | Top and bottom |
| Lug terminal<br>Box terminal | Lug terminal<br>Box terminal | Lug terminal | Lug terminal | Lug terminal |
| ✓ | ✓ | ✓ | ✓ | ✓ |

[1)] Utilization category B only for 400 A and 500 A and the trip units of the ETU5 and ETU8 series

## General data

### *Molded case circuit breakers and accessories in the system*

The new 3VA molded case circuit breakers come with a large portfolio of internal and external accessories which can be installed flexibly in any size of circuit breaker (depending on the type of accessory).

The table below shows the molded case circuit breakers in or on which the accessories can be installed, and the sizes covered by the same accessory component:

| Accessories | Molded case circuit breakers | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 3VA1 | | | 3VA2 | | | | |
| | 100 | 160 | 250 | 100 | 160 | 250 | 400 | 630 |
| Auxiliary switches and alarm switches | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Auxiliary releases | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Connection technology | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Plug-in technology | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Draw-out technology | | | ■ | ■ | ■ | ■ | ■ | ■ |
| Front mounted rotary operator | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Door mounted rotary operator | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Side wall mounted rotary operators | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Motor operator MO310 (mounted on the side) | | ■ | | | | | | |
| Motor operator MO320 (mounted on the front) | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Locking and interlocking | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Residual current device (mounted on the side) | | ■ | ■ | | | | | |
| Residual current device (mounted underneath) | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Communications interface | | | | ■ | ■ | ■ | ■ | ■ |
| EFB300 | | | | ■ | ■ | ■ | ■ | ■ |
| TD300 and TD500 | | | | ■ | ■ | ■ | ■ | ■ |
| Masking frame | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| DIN rail adapter | ■ | ■ | | | | | | |

### *Front terminals*

The portfolio of connection components for the molded case circuit breakers includes a large selection of front cable and busbar terminals.

Connection technology available from/installed at the factory

All 3VA molded case circuit breakers are available as standard with a lug terminal (clip-in nut and clamping screw) at the infeed and load ends.

For units up to size 160 A, a box terminal for direct cable connection can be optionally selected instead of the lug terminal. The box terminal is preassembled and installed at the factory.

The connection technology available from/installed at the factory can be selected in the 12th position of the article number of the molded case circuit breaker.

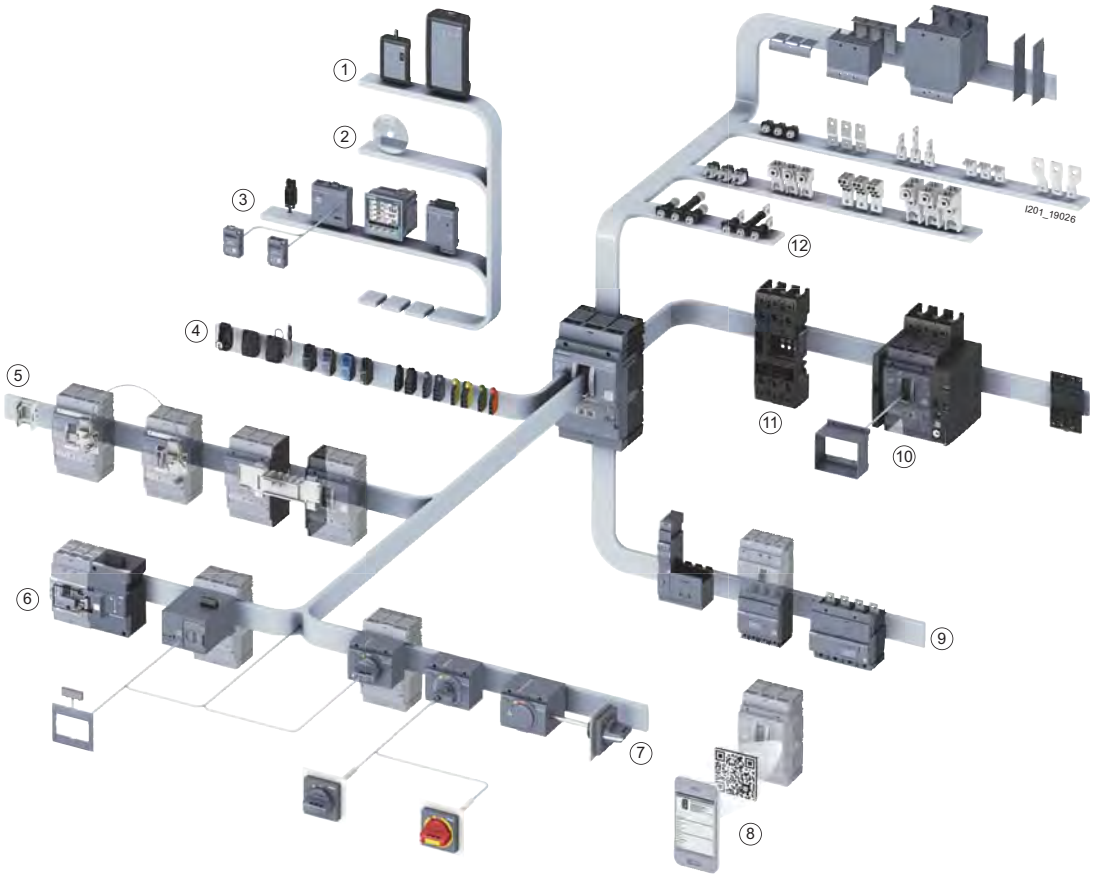
| Connection technology | Illustration | 3VA1 | | | 3VA2 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 100 | 160 | 250 | 100 | 160 | 250 | 400 | 630 |
| Lug terminal |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Box terminal |  | ✓ | ✓ | -- | ✓ | ✓ | -- | -- | -- |

✓ Available

Insulated busbars and cables with cable lugs can be connected directly to the lug terminal. Furthermore, all connection bar extensions are assembled at the molded case circuit breaker using the lug terminal:

- Front connection bars extended (phase barriers included in scope of supply)
- Front connection bars broadened (phase barriers included in scope of supply)
- Front connection bars edgewise (phase barriers included in scope of supply)
- Lug terminal, right-angled (phase barriers included in scope of supply)

The implementation of insulation measures (phase barriers or terminal covers) is recommended. With some accessory components, insulation measures are essential (and these are included in the scope of supply of the relevant component).




Test devices (pages 4/53)
powerconfig software (pages 4/53, chapter "Measuring Devices and Power Monitoring" and chapter "Software")
Communication (pages 4/47 to 4/53)
Internal accessories (pages 4/2 to 4/11)
Locking and interlocking (pages 4/54 to 4/57)
Motor operators (page 4/18)

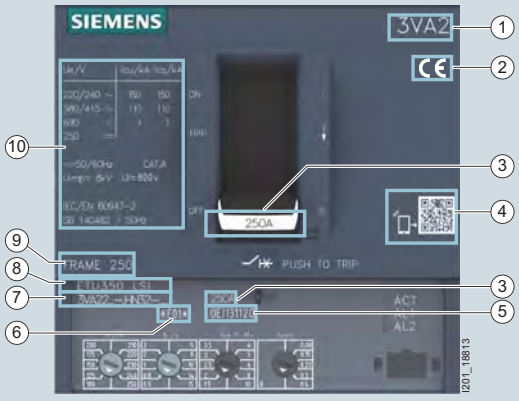
Manual operators (pages 2/75 to 4/17)
Knowledge Manager (1/9)
Residual current devices (pages 4/42 to 4/45)
Withdrawable unit design (pages 4/37 to 4/41)
Plug-in design (pages 4/37 to 4/41)
Connection technology (pages 2/81 to 4/36)

### *Knowledge Manager*

By reading out the QR code using a smartphone and the "Siemens Industry Online Support" app, it is possible to view key product information via the Internet at any time.

Siemens provides the app free of charge.

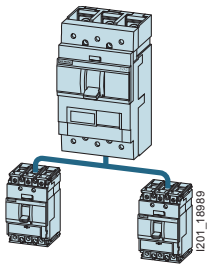
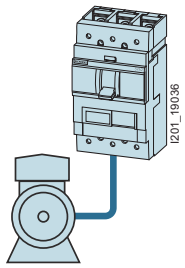
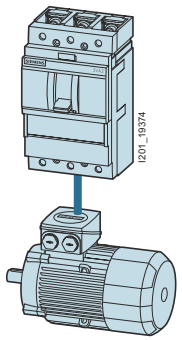
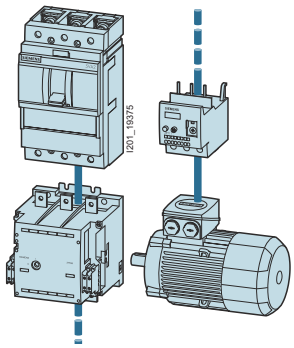
Technical information about installation, parameterization or maintenance can be called up directly from the system by QR code on a smartphone.

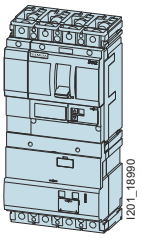
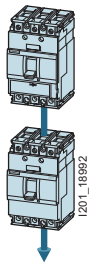



1 Circuit breaker designation
2 Approvals
3 Rated current
4 Knowledge Manager
5 Production date
6 Product version
7 Article number
8 ETU type
9 Size and breaking capacity class
10 Rating plate

Front: Inscription

## Overview

| Application | Page | 3VA1 | 3VA2 | Description | Standards |
|---|---|---|---|---|---|
| **Line protection** | | | | | |
|  | 2/2 ... 2/23<br>3/2 ... 3/25 | ✓ | ✓ | The trip units for line protection are designed to provide overload and short-circuit protection for:<br>• Cables<br>• Lines<br>• Non motorized loads | IEC/EN 60947-1,<br>IEC/EN 60947-2 |
| **Generator protection** | | | | | |
|  | 3/8 ... 3/12<br>3/20 ... 3/25 | -- | ✓ | The setting values of the trip units are matched to protecting generators. | IEC/EN 60947-1,<br>IEC/EN 60947-2 |
| **Motor protection** | | | | | |
|  | 3/26 ... 3/27 | -- | ✓ | The overload and short-circuit releases are designed for optimal protection and direct starting of three-phase AC squirrel-cage motors. The molded case circuit breakers for motor protection have phase-failure sensitivity and a thermal image that protects the motor against overheating. The adjustable time lag class enables users to adjust the overload release to the startup conditions of the motor to be protected.<br>Are you IE3 ready? | IEC / EN 60947-1,<br>IEC / EN 60947-2,<br>IEC / EN 60947-4-1<br>IE3 ready |
| **Protection for starter combinations (starter protection)** | | | | | |
|  | 2/24 ... 2/25<br>3/26 ... 3/27 | ✓ | ✓ | Starter combinations consist of:<br>Molded case circuit breaker + contactor + overload relay.<br>The molded case circuit breaker handles short-circuit protection and the isolating function. The task of the contactor is the operational switching of the feeder. The overload relay handles overload protection that can be specially matched to the motor. The molded case circuit breaker for the starter combination is therefore equipped with an adjustable and instantaneous short-circuit release.<br>Are you IE3 ready? | IEC / EN 60947-1,<br>IEC / EN 60947-2,<br>IEC / EN 60947-4-1<br>IE3 ready |

| Application | Page | 3VA1 | 3VA2 | Description | Standards |
|---|---|---|---|---|---|
| **Residual current protection** | | | | | |
|  | 4/42 ... 4/45 | ✓ | ✓ | Residual current protective devices afford fault protection (formerly referred to as: protection in case of indirect contact) and supplementary protection (formerly referred to as: Protection in case of direct contact) in low-voltage systems in the event of the basic insulation failing or live parts being touched. Their task is to prevent or reduce injury to personnel or livestock, or damage to property. | IEC / EN 60947-2 (Annexes B, M) |
| **Switch disconnectors** | | | | | |
|  | 2/26 | ✓ | -- | Switch disconnectors are deployed:<br>• As main disconnecting means<br>• For on/off switching<br>• For disconnection of loads<br>• As switch disconnectors without overload and short-circuit protection<br><br>The switch disconnectors correspond to IEC / EN 60947-3. | IEC / EN 60947-1, IEC / EN 60947-3 |

## Design

### *Integrated system*

The 3VA molded case circuit breakers set new standards, not only regarding technical features and functional scope, but design ergonomics too.

When it comes to operation, functionality and installation, the new 3VA series is a fully integrated system. This principle is embodied in the basic units and in all internal and external accessories.

The benefits offered by the internal and external accessories available for the 3VA molded case circuit breakers are:

- Standardized methods of operation
- Standardized functionality
- Standardized installation procedures
- Standardized accessories from 100 A to 630 A (e.g. auxiliary switches, auxiliary releases, etc.)

### *The right circuit breaker for all installation conditions*

The new series of molded case circuit breakers can be equipped with additional components enabling them to be installed as fully functional switches in any location, a feature which affords maximum flexibility to system planners.

The following components can be used to suit the installation location:

- Handle
- Front mounted rotary operator
- Side wall mounted rotary operator
- Door mounted rotary operator
- Motor operator

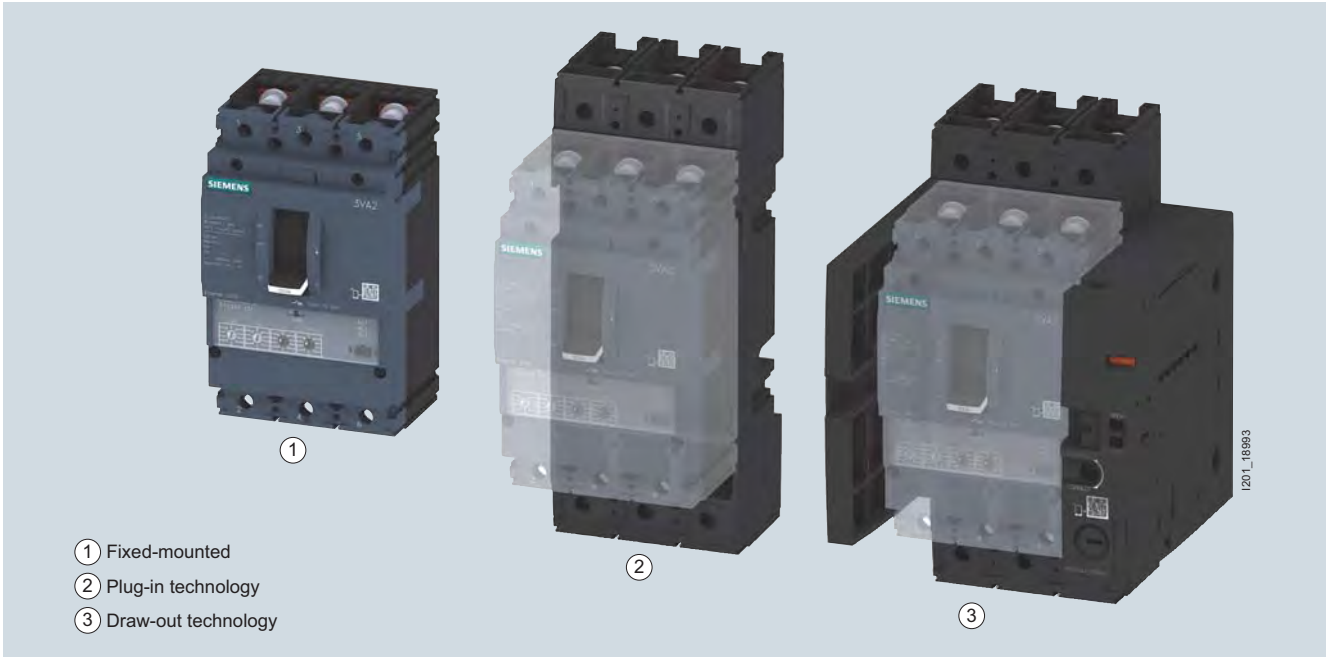
When the 3VA molded case circuit breaker is in the OFF position, it reliably disconnects all current paths of the circuit in accordance with IEC 60947-2 and IEC 60204-1 (VDE 0113). In the event of overvoltage between input and output, the reduced clearances prevent leakage currents at the surface and ensure that the dielectric strength is not degraded.

The main switch functionality is not diminished by installation of the following accessories:

- Motor operator
- Manual operator
- Residual current device

Installation variants

3VA molded case circuit breakers are available in the following installation variants:

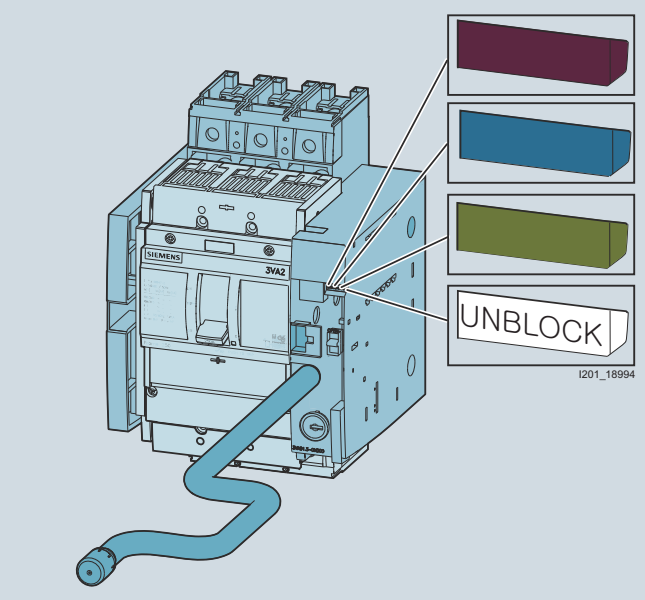



1 Fixed-mounted
2 Plug-in technology
3 Draw-out technology

All versions offer the full range of functions, e.g. they can be equipped with every kind of accessory. In addition, the last two variants are designed to allow speedy breaker replacement for maintenance purposes or visual indication of the electrical isolation in the main circuit.

***Indication of switching positions in the draw-out unit***

The picture below illustrates the colors used to indicate the switching position in the draw-out unit:




The switching position is indicated in a window of the draw-out unit and is clearly color-coded, enabling immediate identification of the current switching position of the molded case circuit breaker.

The draw-out unit has four switching positions:

- CONNECT:

Connection to main circuit and auxiliary circuit established.

- TEST:

In the TEST position, the main contacts of the molded case circuit breaker are not connected to the main circuit, but only to the auxiliary circuit. It is therefore possible to check that the auxiliary circuit is functioning properly when the main circuit is open.

- DISCONNECT:

The molded case circuit breaker is not connected to the main circuit or to the auxiliary circuit either.

- UNBLOCK:

The molded case circuit breaker is not in any of the 3 defined, fixed positions listed above. UNBLOCK is displayed while the breaker is being operated by rotating the crank handle.

Motor operator for remote control

3VA molded case circuit breakers can also be controlled remotely. Whether the circuit breaker is controlled from "just" the other side of the closed cubicle door, or the breaker is switched on via a control room, operator panel, etc., is irrelevant.

Motor operators are available as accessories for remote control of the circuit breakers.

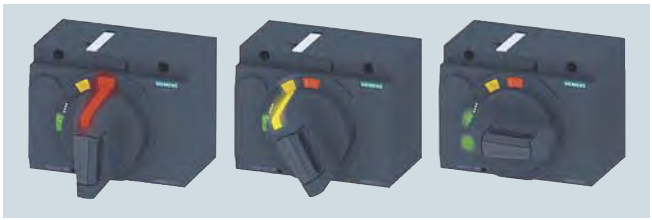
***Ergonomic design of circuit breakers, control levers and control elements***


Clear status indication

The possible switching positions of manual rotary operators are listed below:

- ON – Red marking
- TRIP – Yellow marking
- OFF – Green marking

The handle clearly engages in one of these positions depending on the status of the molded case circuit breaker. The switching positions are color-coded so that you can identify the status of the circuit breaker at a glance.

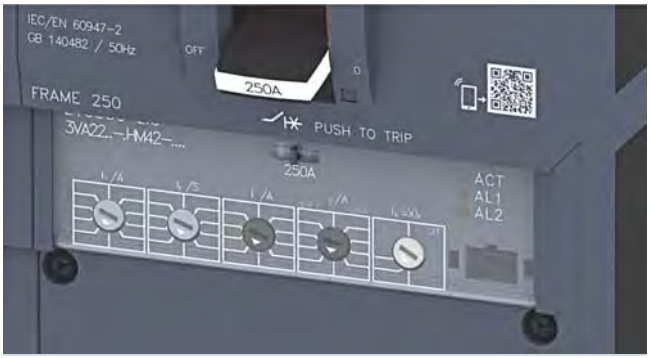


Active illumination

You can retrofit an active illumination kit to manual rotary operators. The illuminated indicator in the rotary handle signals the relevant switching position in the colors red, yellow and green. This provides clear visualization of the switching position on-site under poor lighting conditions.


Ergonomic control lever

With its large contact area, the ergonomic control lever is designed to assist manual operation of the circuit breaker. The white strip around the edge of the lever makes it easy to identify in conditions of poor visibility. The additional rated operational current information stamped on the white strip also significantly eases identification of the circuit breaker when it is one of many breakers in a large switchboard installation.




Color-coded control elements

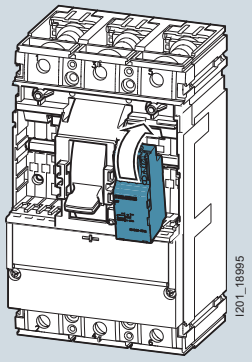
The control elements on the thermal-magnetic and electronic trip units are color-coded.

The separate color of each control element indicates that it performs a specific function, helping you to make the required settings quickly.

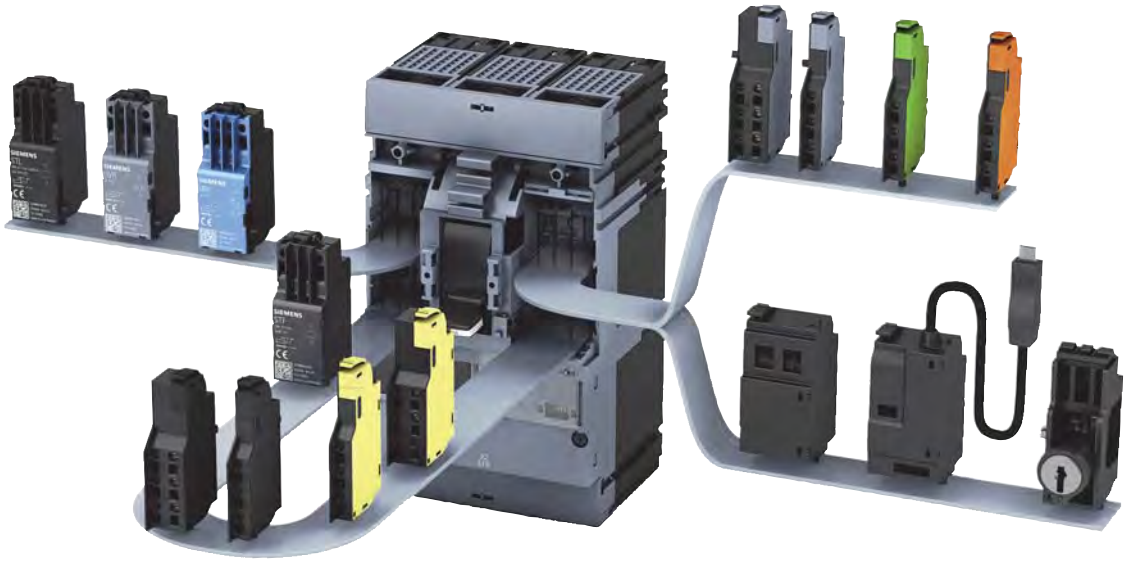
| Color | | Function |
|---|---|---|
| $I_r$/A | Petrol | Overload protection |
| $I_i$/A | Black | Short-circuit protection, ground fault protection |
| $I_N$=x$I_r$ | Gray | Protection of the neutral conductor |

Broad range of accessories

The internal accessories (e.g. alarm and auxiliary switches, auxiliary releases, etc.) all belong to one family and can be installed on any size of 3VA1 or 3VA2 circuit breaker. The accessories are designed for quick and easy installation. The components are coded by color and design to ensure that they are always installed at the correct position in the circuit breaker.



Color coding of accessories



A color coding system has been used to clearly identify the specific functions of individual accessories:

| Color | Auxiliary switches and alarm switches | Auxiliary releases |
|---|---|---|
| Black | Auxiliary switch AUX | • Shunt trip left STL<br>• Shunt trip flexible STF |
| Gray | Leading changeover switch LCS | • Undervoltage release UVR<br>• Undervoltage release with leading NO contacts UVR (LNO) |
| Yellow | Trip alarm switch TAS | -- |
| Orange | Short circuit alarm switch SAS | -- |
| Green | Electrical alarm switch EAS | -- |
| Blue | -- | Universal release UNI |

The cylinder lock and communication accessories shown next to the internal accessories are explained in the chapters "Locking and interlocking" and "Communication and test/commissioning devices".

Fast assembly of motor operators

The motor operators have been designed for quick and easy assembly and disassembly. This makes for quick and easy access to the internal accessories.

1

## General data

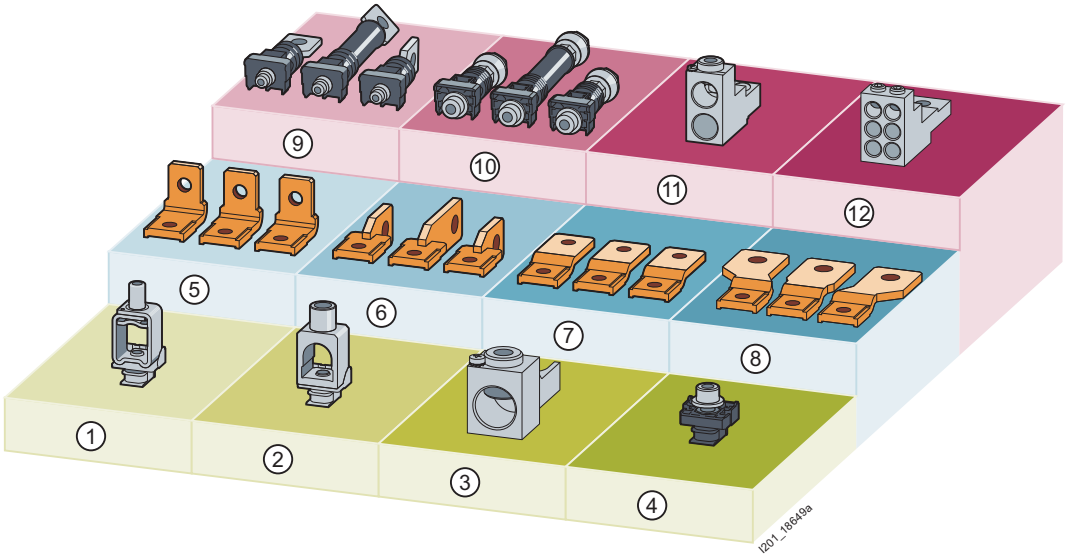
### *Connection technology*

A large selection of connection systems is available for the new series of 3VA molded case circuit breakers.

The supported cable cross-sections are based on the size of the molded case circuit breaker and the cable terminals used. The terminals are fitted either internally or externally to the molded case circuit breaker.

The connection technology is easy to integrate in the new series of 3VA molded case circuit breakers.

With it you can implement various front and rear main conductor connections for the molded case circuit breakers in all types of installation (fixed-mounted, plug-in and draw-out).

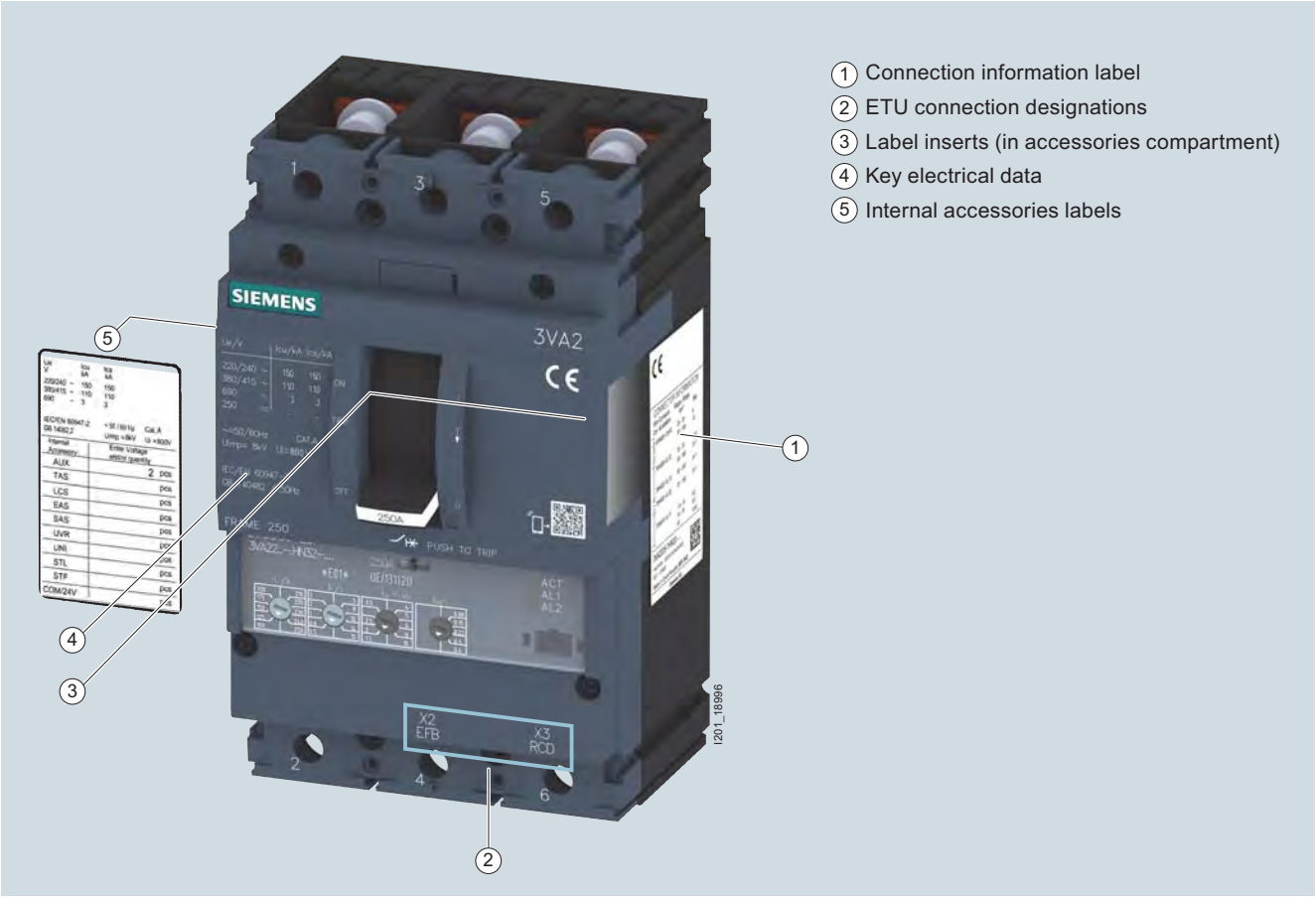



1 Box terminal
2 Circular conductor terminal
3 Circular conductor terminal, large
4 Lug terminal
5 Lug terminal, right-angled
6 Front connection bars edgewise
7 Front connection bars extended
8 Front connection bars broadened
9 Rear terminal flat
10 Rear connecting studs
11 Circular conductor terminal for 2 cables
12 Circular conductor terminal for 6 cables

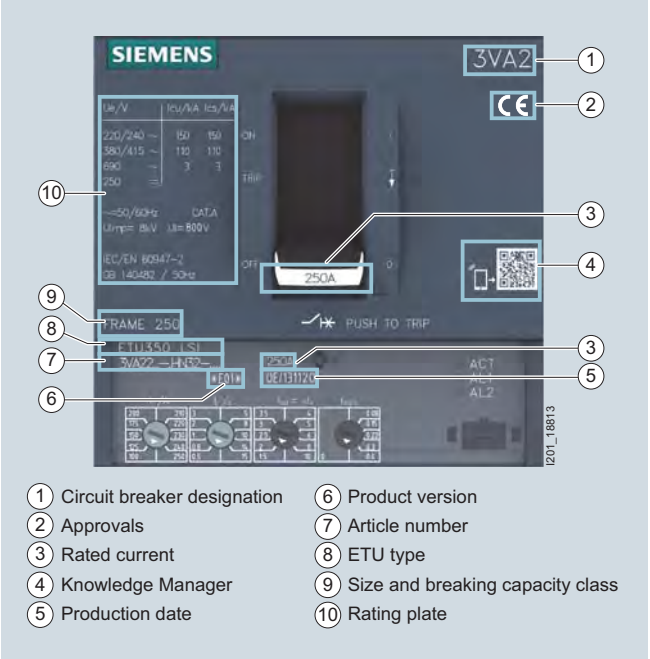
***Technical details***

Circuit breaker identification

Each 3VA molded case circuit breaker has labels displaying all the important technical information, enabling unique identification:




Breaker labeling



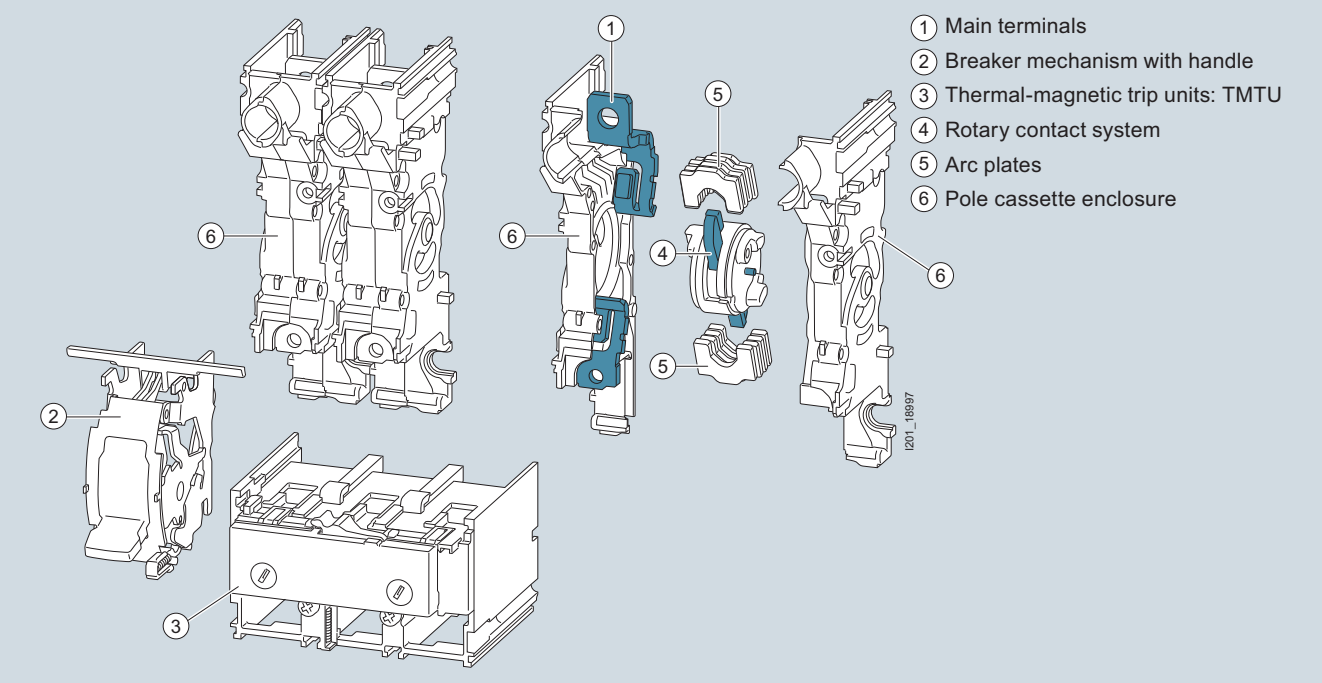

Front: Labeling

Knowledge Manager

By reading out the QR code using a smartphone and the "Siemens Industry Online Support" app, it is possible to view key product information via the Internet at any time.

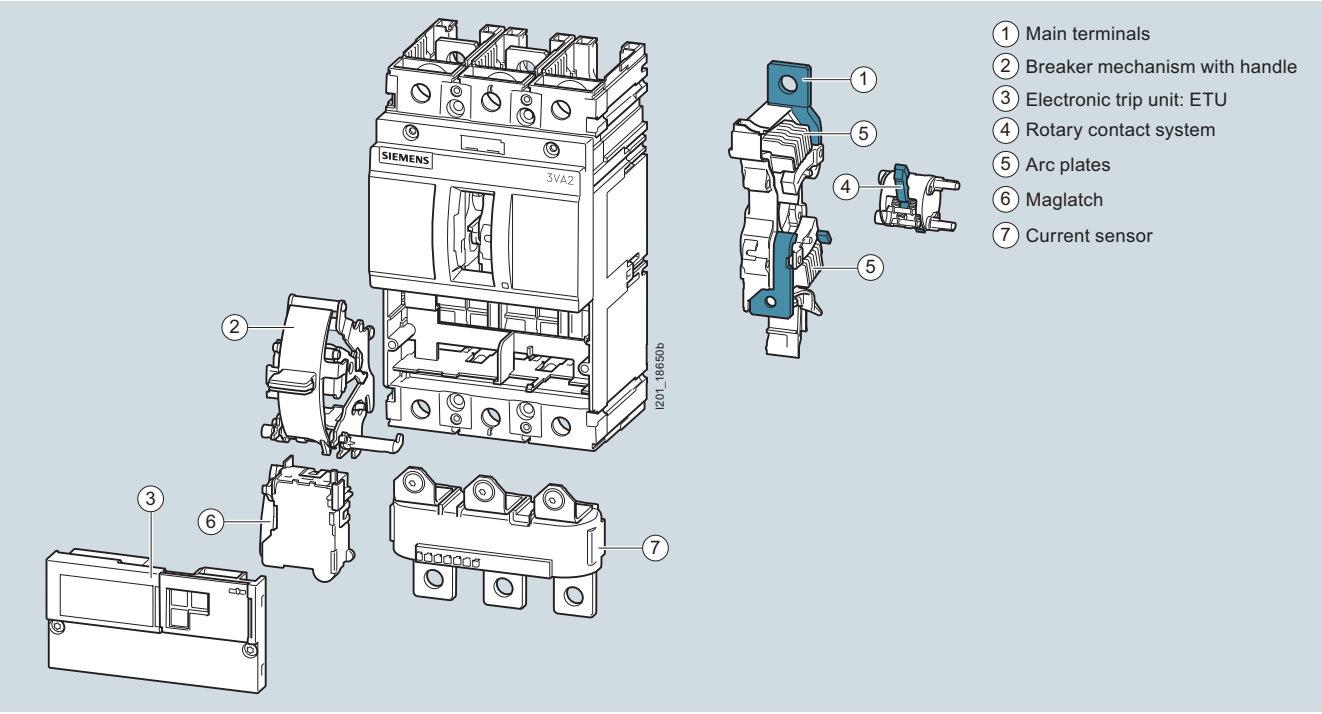
Siemens provides the app free of charge.

Design and components – 3VA1




Design of the 3VA1 molded case circuit breaker

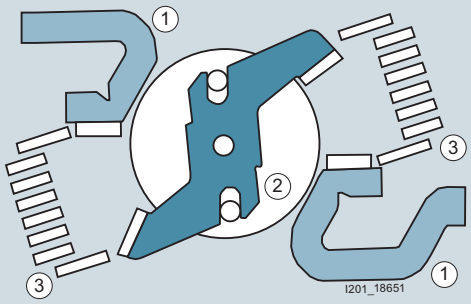
Design and components – 3VA2




Design of the 3VA2 molded case circuit breaker

Current limitation

To achieve excellent current limiting, the 3VA molded case circuit breakers are equipped with a double-rotatory contact system that opens dynamically on its own above the specified disengaging currents on the principle of magnetic repulsion before the expected peak value of the short-circuit current is reached. These limits have been coordinated and optimized to suit the overall device characteristics. This substantially reduces the thermal and mechanical loading on the molded case circuit breaker.




1 Fixed contacts
2 Rotating contact system
3 Arc splitter chamber

The switching pole cassettes of the 3VA molded case circuit breakers are optimized for high breaking capacity, and their double-rotary contact system design enables extremely good current limiting thanks to the very fast build-up of peak arc voltage generated at both contacts in the event of a short-circuit. This results in significant limitation of the let-through energy $I^2t$ and the expected let-through current $I_{SC}$.

Breaking capacity

The rated ultimate short-circuit breaking capacity $I_{cu}$ is the maximum value of the short-circuit current which the protective device is capable of disconnecting in accordance with regulations. Up to this value, the protective device is also allowed to be used in a network.

The new 3VA molded case circuit breakers are available with identical external dimensions but various breaking capacity classes according to size and rated operational current range.

- Breaking capacity of the 3VA1 series, 2 to 4-pole at 415 V AC

| **Breaking capacity Class / $I_{cu}$** | **Size** 3VA1 100 A 3 and 4-pole | 3VA1 160 A 2-pole | 3VA1 160 A 3 and 4-pole | 3VA1 250 A 3 and 4-pole |
|---|---|---|---|---|
| B 16 kA | ✓ | -- | -- | -- |
| N 25 kA | ✓ | ✓ | ✓ | -- |
| S 36 kA | ✓ | ✓ | ✓ | ✓ |
| M 55 kA | ✓ | ✓ | ✓ | ✓ |
| H 70 kA | -- | -- | ✓ | ✓ |

- Breaking capacity class of the 3VA1 series, 1-pole at 240 V AC

| **Breaking capacity Class / $I_{cu}$** | **Size** 3VA1 160 A 1-pole |
|---|---|
| N 25 kA | ✓ |
| S 36 kA | ✓ |

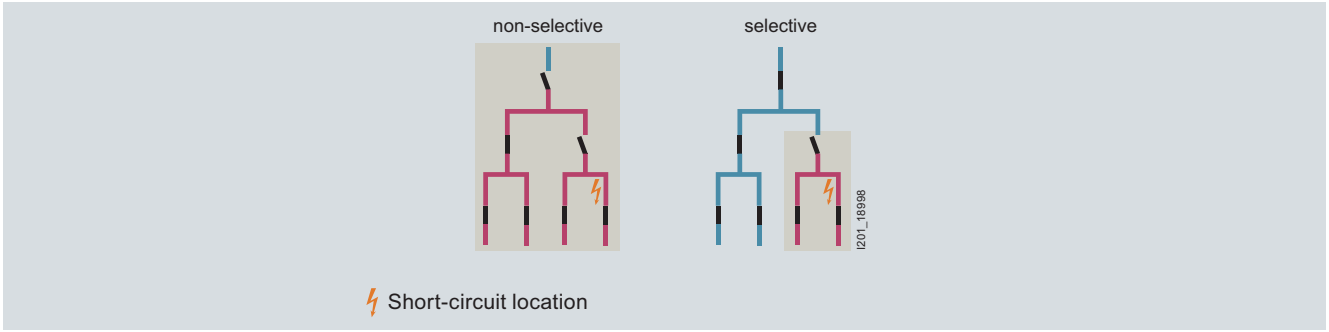
- Breaking capacity class of the 3VA2 series at 415 V AC

| **Breaking capacity Class / $I_{cu}$** | **Size** 3VA2 100 A | 3VA2 160 A | 3VA2 250 A | 3VA2 400 A | 3VA2 630 A |
|---|---|---|---|---|---|
| M 55 kA | ✓ | ✓ | ✓ | ✓ | ✓ |
| H 85 kA | ✓ | ✓ | ✓ | ✓ | ✓ |
| C 110 kA | ✓ | ✓ | ✓ | ✓ | ✓ |
| L 150 kA | ✓ | ✓ | ✓ | ✓ | ✓ |

***Selectivity***

Switching devices connected in series, e.g. molded case circuit breakers and fuses, work in a coordinated manner to ensure that switching devices are tripped successively. The closest, upstream switching device before the location of the short-circuit must trip. The other switching devices on the same current run do not trip. The purpose of selectivity is to minimize the effects of a fault in terms of its duration and the area affected by the fault.

Selectivity is achieved when the circuit breakers are matched to each other by means of selection, configuring and trip settings in such a way that, in the event of a fault, only the breaker closest to the location of the fault trips.




Full selectivity

There is an increasing demand for full selectivity in order to safeguard continuity of service by power distribution systems. A power system is said to be fully selective if only the protective device located upstream of the fault location when viewed in the direction of energy flow, i.e. from the infeed to the load, trips in the event of a fault.

Full selectivity always refers to the short-circuit current occurring at the installation point.

Partial selectivity

A system is said to be partially selective when selective tripping in response to a system fault is not ensured up to the maximum ultimate short-circuit breaking capacity $I_{cu}$ of the switching devices. Selectivity is then ensured only up to a certain $I_s$ current value (ultimate selectivity value). If the calculated prospective short-circuit current at the installation point of the downstream protective device is lower than the ultimate selectivity value specified for the switchgear assembly, then it is still possible to describe the system as fully selective.

If the values determined by the short-circuit current calculation (e.g. according to IEC/EN 60909, DIN VDE 0102) at the installation point of the downstream circuit breaker lie below the selectivity limit current listed in the respective table for the selected combination, selectivity is assured for all possible short-circuits at the installation point.

If the calculated short-circuit current at the installation point is higher than the selectivity limit current, selective tripping by the downstream circuit breaker is only assured up to the value listed in the table. A judgment must be made as to whether the value can be considered to be sufficient because the probability of the maximum short-circuit occurring is low, for example. Otherwise, a circuit breaker combination should be chosen whose selectivity limit lies above the maximum short-circuit current.

Selectivity with 3VA2 molded case circuit breakers

Series 3VA2 circuit breakers are designed to deliver excellent selective tripping combined with optimum current limiting and outstanding breaking capacity.

3VA2 molded case circuit breakers have been specifically designed to meet the following requirements:

- System-wide, high selectivity with a rated operational current interval of 1 : 2.5 up to the miniature circuit breaker
- Selectivity in combination with high current limiting and high breaking capacity
- Cost-effective design / configuring of selective power distribution systems

These molded case circuit breaker requirements are achieved in engineering terms as follows:

- Double-rotary contact system for highly dynamic opening response
- Coordinated electronic trip units
- Dynamic selectivity

Depending on use of molded case circuit breakers with a rated operational current differential in a ratio of at least 1 : 2.5, and selection of suitable breaking capacity classes, you can achieve selective tripping of the area of the installation directly affected by the fault up to the maximum ultimate short-circuit breaking capacity.

You can find information on selectivity values for the 3VA2 molded case circuit breakers on the Internet under the link for the 3VA documentation (www.siemens.com/3VA-documentation).

*Electronic trip units and fast trip units*

As a protective device, the molded case circuit breaker is required to clear electrical faults in the system. For this purpose, series 3VA2 circuit breakers are equipped with intelligent electronic trip units which can be combined with metering functions. The tripping characteristic of the electronic trip units can be finely and flexibly adjusted. In the event of short circuits, a fast trip unit also responds according to the arc power from the arc chute. This selective trip unit ensures that major short circuits are cleared more quickly, while at the same time ensuring that medium short circuits are interrupted selectively.

***Standards and guidelines***

The standards fulfilled by the 3VA molded case circuit breakers include:

- IEC / EN 60947-1
- IEC / EN 60947-2
- IEC / EN 60947-2, Appendix B, H and M
- IEC / EN 60947-3
- IEC / EN 60947-6-1

Electromagnetic compatibility

The 3VA molded case circuit breakers meet the requirements of the following standards:

- CISPR11, Class A and Class B
- IEC / EN 60947-1, Appendix S
- IEC / EN 60947-2, Appendix B, F, J and N

The 3VA molded case circuit breakers are adequately resistant to the following factors:

- Electrostatic charge
- Electrostatic discharge
- Electromagnetic waves, e.g. from transmission systems, mobile phones, radio telephone sets and radar systems
- Overvoltage, e.g. caused by lightning
- Voltage surges

Certificates

You can find information on the available certification (CE, CCC, EHC) on the Internet (www.siemens.com/lowvoltage/certificates).

In the Entry List you can use the certificate type (general product approval, explosion protection, test certificates, shipbuilding, etc.) as a filter criterion.

Ambient conditions

- Pollution degree:
  Operation of the 3VA1 and 3VA2 molded case circuit breakers is approved in accordance with IEC / EN 60947-1 and IEC / EN 60664-1 for pollution degree 3.
- Ambient temperature:
  - 3VA molded case circuit breakers are used at ambient temperatures from -25 °C to +70 °C. At temperatures above +50 °C there are reductions in the rated operational current (derating).
  - The permissible storage temperature in original Siemens packaging lies between -25 °C and +80 °C.
- Special climatic requirements:
  The 3VA molded case circuit breakers can also be used in severe operating conditions.

  *Severe conditions for storage, transport and stationary use:*
  The molded case circuit breakers have passed the relevant special tests according to IEC / EN 60947-1, Appendix Q for use in Class E.
  This class covers the areas MC3 + CC2 + SC1:
  - Ambient temperature
  - Humidity
  - Vibration environment
  - Shock environment

  These ambient conditions can be referred to as "Open deck, damp and cold atmosphere without salt spray" or "Difficult, non-marine conditions".

  The following standards-related criteria are complied with:
  - IEC / EN 60068-2-2 "Bd" and IEC / EN 60068-2-1 "Ab":
    Temperature range: -25 °C … +70 °C
  - IEC / EN 60068-2-30 "Db":
    Humid heat up to 55 °C and air humidity up to 95 %
  - IEC / EN 60068-2-6 "Fc"
    Vibration test
  - IEC / EN 60068-2-27 "Ea"
    Shock resistance test

  Between the tests of compliance with the standards and at the end of the tests, the usability of the devices is assured with the "Verification of operation characteristics".
- Vibration resistance and shock resistance:
  - 3VA molded case circuit breakers are insensitive to vibrations and meet the requirements relating to mechanical and electromechanical vibration strength according to IEC / EN 60068 and the specifications of the shipbuilding societies.
  - The circuit breakers resist impacts without tripping of up to 10 g and are tested to withstand their operating conditions without damage, with shock impact according to IEC / EN 60068-2-27 "Ea" with 150 m/s$^2$/11 ms.
- Installation altitudes:
  - When 3VA1 and 3VA2 molded case circuit breakers are used at up to 2000 m above sea level, the rated data will not change.
  - An installation altitude above 2000 m can lead to higher temperatures at the switching devices. The decreased air density can significantly reduce heat dissipation, in turn reducing rated operational voltage, rated uninterrupted current and short-circuit values.

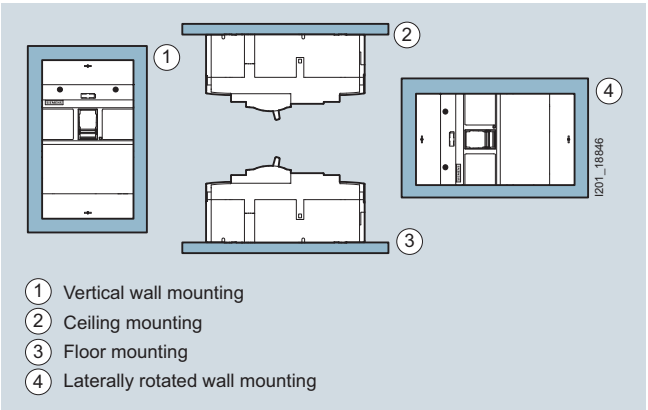
Refer to the table below for the calculation factor for determining the key values:

| | **Height** | | | |
|---|---|---|---|---|
| | 2000 m | 3000 m | 4000 m | 5000 m |
| Breaking capacity $I_{cu}$ / $I_{cs}$ | 1.00 | 0.90 | 0.80 | 0.70 |
| Operating voltage $U_{max}$ | 1.00 | 0.90 | 0.80 | 0.70 |
| Operating current $I_{max}$ [1] | 1.00 | 0.96 | 0.92 | 0.88 |
| Current setting $I_r$ [2] | 1.00 | 1.02 | 1.04 | 1.06 |

[2] At maximum ambient temperature 50 °C

[3] Thermal-magnetic trip units only

Permissible mounting positions

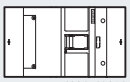
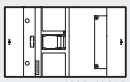
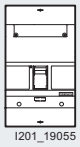
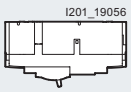
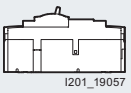
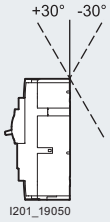
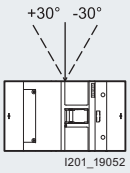
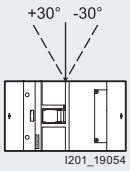



Positions in which the 3VA molded case circuit breakers are allowed to be installed

## General data

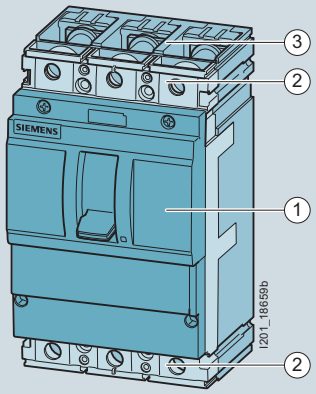
*Further mounting positions, and mounting positions with accessories*

The following table shows the possible variations on the mounting positions, as well as mounting positions with accessories:

| | Wall mounting | | | | Ceiling mounting | Floor mounting |
|---|---|---|---|---|---|---|
| | vertical upright | horizontal right | horizontal left | vertical rotated | suspended | recumbent |
| |  I201_19049 |  I201_19051 |  I201_19053 |  I201_19055 |  I201_19056 |  I201_19057 |
| |  I201_19050 |  I201_19052 |  I201_19054 | | | |
| **3VA1 molded case circuit breakers** | | | | | | |
| Basic circuit breaker (with internal accessories) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| On DIN rail (with internal accessories) | ✓ | ✓ | ✓ | ✓ | -- | ✓ |
| **3VA2 molded case circuit breakers** | | | | | | |
| Basic circuit breaker (with internal accessories) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **3VA1 molded case circuit breakers (3 and 4-pole) and 3VA2 with accessories** | | | | | | |
| Connecting and interlocking | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Plug-in and draw-out technology | ✓ | ✓ | ✓ | ✓ | -- | -- |
| MO320 motor operator | ✓ | ✓ | ✓ | ✓ | up to 250 A | ✓ |
| MO320 motor operator and plug-in/draw-out technology | ✓ | ✓ | ✓ | ✓ | -- | ✓ |
| Front mounted rotary operator | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Door mounted rotary operator | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Side wall mounted rotary operator | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Loadside RCD basic type A (RCD310, RCD510) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Loadside RCD basic type A (RCD320, RCD520) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Loadside RCD advanced type A (RCD820) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Modular RCD type A (MRCD) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3-pole on 60 mm busbar system (with internal accessories) | ✓ | -- | -- | -- | -- | -- |

Degrees of protection

3VA molded case circuit breakers comply with the following degrees of protection as defined by IEC 60529 and IEC 60947-1, Appendix C:




1 Front panel without termination area
2 Front panel termination area
3 Infeed/load ends

| Level | Accessories cover | | Terminal cover | |
|---|---|---|---|---|
| | Without | With | Without | With |
| 1 | -- | IP4x | -- | -- |
| 2 | -- | -- | IP2x | IP4x |
| 3 | -- | -- | -- | IP3x |

Degree of protection IP40 is achieved when a 3VA molded case circuit breaker is installed in a switchboard with a door cutout of Level 3 with ETU. The units can be upgraded to comply with higher degrees of protection up to IP65 by installation of the following components:

- Door mounted rotary operator
- Side wall mounted rotary operator

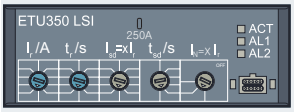
Environmental protection

The 3VA1 and 3VA2 molded case circuit breakers meet the specifications of the European Environment Guideline 2002/95/EC RoHS (Restriction of the use of certain hazardous substances in electrical and electronic equipment). As little impact on the environment as possible was emphasized in their development and production.

## General data

***Protection system***

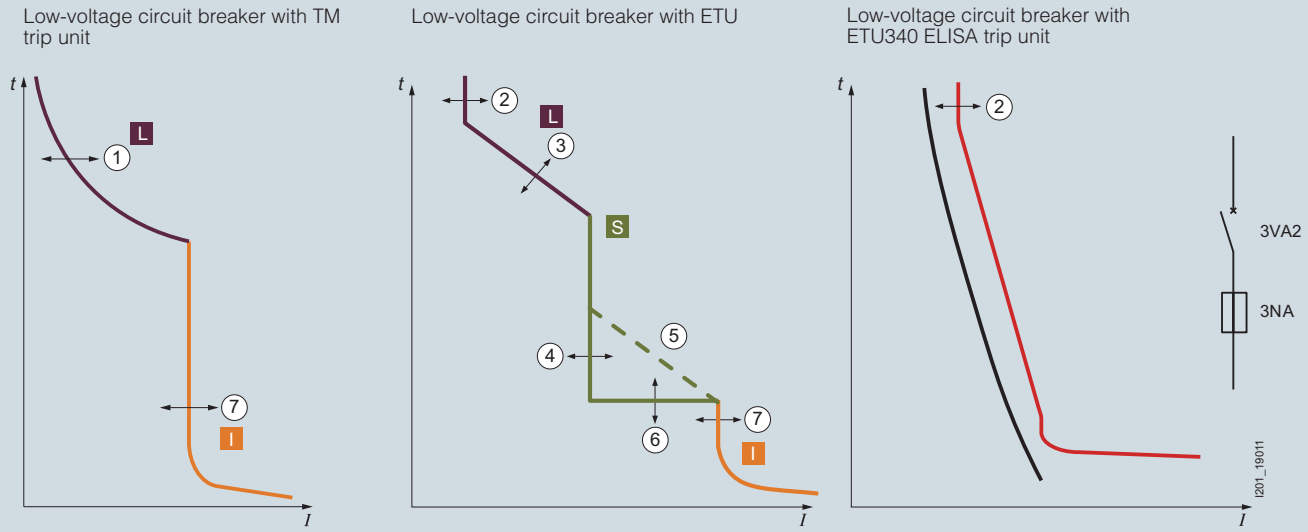
Description of functions

| | Thermal-magnetic TM 2-series | Electronic ETU 3-series | Electronic with display ETU 5-series | Electronic with display and metering function – ETU 8-series |
|---|---|---|---|---|
| **Protection** | | | | |
| Trip units |  I201_19004 |  I201_18828 |  I201_18480 |  I201_18482 |
| | Line protection: TM210, TM220, TM240<br>Starter protection: TM120M | Line protection: ETU320, ETU330, ETU340, ETU350<br>Starter protection: ETU310M<br>Motor protection: ETU350M | Line protection: ETU550, ETU560 | Line protection: ETU850, ETU860<br>Motor protection: ETU860M |
| **Integrated functions** | | | | |
| Parameterizing |  |  |  |  |
| | Setting and reading the parameters in A | Setting and reading the parameters in A and s | • Setting and reading the parameters via display and communication<br>• Fine setting of the parameters<br>• Reading the measured values | • Setting and reading the parameters via display and communication<br>• Fine setting of the parameters<br>• Reading the measured values |
| Status display | -- |  |  |  |
| | | Indicating the ETU status via LEDs | Indicating the ETU status via LEDs | Indicating the ETU status via LEDs |
| Interface | -- |  |  |  |
| | | Interface for test devices | Interface for test devices | Interface for test devices |
| Metering function | -- | -- | -- | Metering function integrated |
| **Optional expansions** | | | | |
| | -- | -- |  |  |
| | | | 24 V module for continuous power supply (also without primary current through the molded case circuit breaker) | 24 V module for continuous power supply (also without primary current through the molded case circuit breaker) |
| | -- |  |  |  |
| | | EFB300 external function box for connecting to the ETU | EFB300 external function box for connecting to the ETU | EFB300 external function box for connecting to the ETU |
| | -- | -- |  |  |
| | | | COM060 communication module | COM060 communication module |
| | -- | -- |  |  |
| | | | COM800/COM100 breaker data server<br>Interface to<br>• PROFIBUS<br>• PROFINET<br>• Modbus RTU<br>• Ethernet (Modbus TCP) | COM800/COM100 breaker data server<br>Interface to<br>• PROFIBUS<br>• PROFINET<br>• Modbus RTU<br>• Ethernet (Modbus TCP) |
| | -- | -- |  |  |
| | | | DSP800 external display for installing in the cubicle door | DSP800 external display for installing in the cubicle door |
| | -- |  |  |  |
| | | TD300/TD500 test device | TD300/TD500 test device | TD300/TD500 test device |

Characteristic curves

To design a low-voltage switchboard installation in accordance with the valid rules, the system planner needs to dimension the protection settings of the molded case circuit breakers.

The settings selected for the trip unit of a molded case circuit breaker depend on the type of equipment to be protected, e.g. switchboard and applications. Tripping characteristics up to a tripping time of ≥ 1 ms are represented graphically. In order to simplify the coordination of different protection devices, the current is specified as a multiple of the current setting value and the time is specified in seconds.




1 Response threshold of the long-time delayed protection, thermal
2 Response threshold of the long-time delayed protection
3 Delay of the long-time delayed protection
4 Response threshold of the short-time delayed protection
5 $I^2t$-Characteristic ON/OFF of the short-time delayed protection
6 Delay of the short-time delayed protection
7 Response threshold of the instantaneous protection

L Overload range
S Short-time delayed short-circuit protection
I Instantaneous short-circuit protection
Current/time characteristic of an LV HRC fuse
Current/time characteristic of an 3VA2 with ETU340 ELISA

Tripping characteristics

Special characteristic curve with the ETU340 ELISA

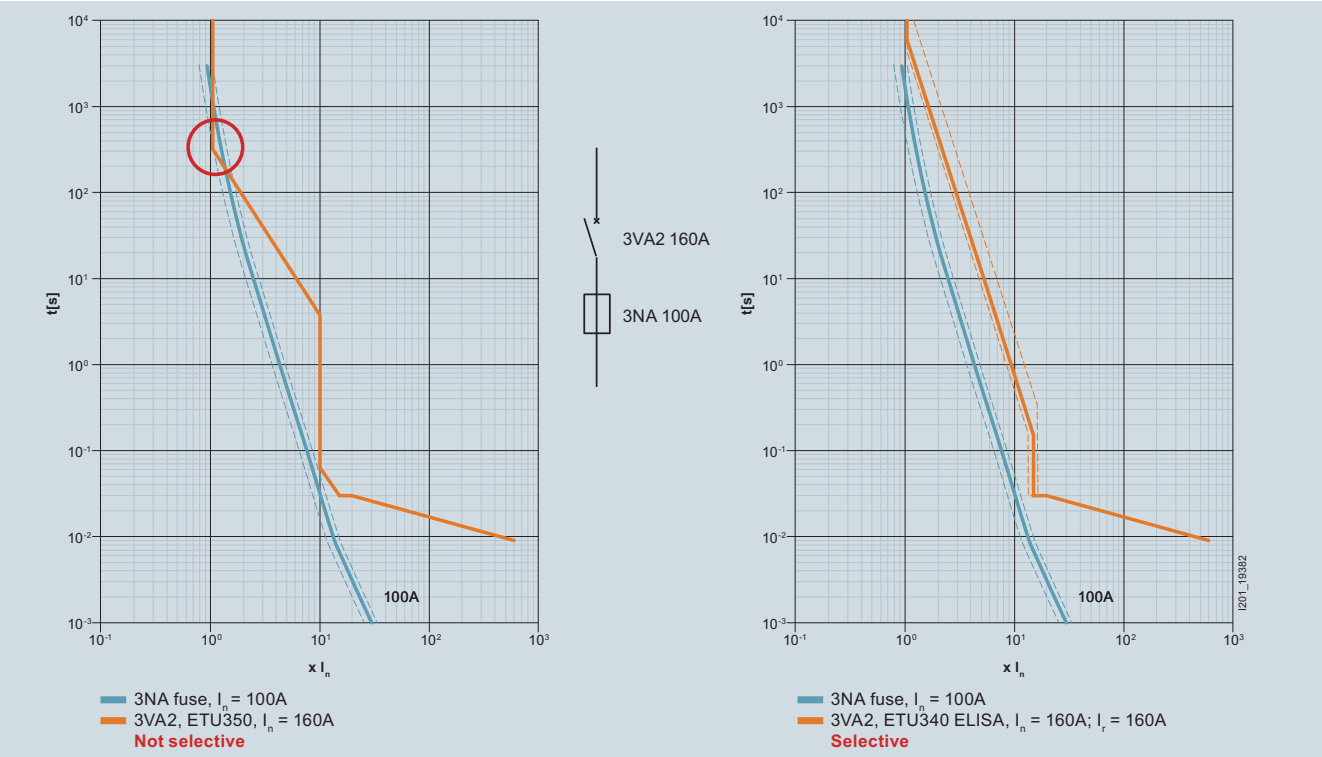
ELISA is a special form of the current-time characteristic that is used in the ETU340 ELISA of the 3VA2. Thanks to its special form, it is possible to optimize the selective grading of downstream LV HRC fuses and upstream MCCBs.

*Advantages of the ELISA characteristic compared to a conventional LI/LSI characteristic*

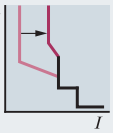
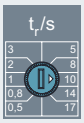
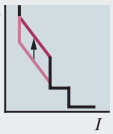
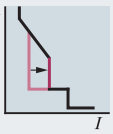
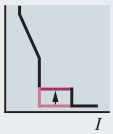
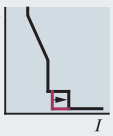
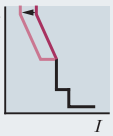
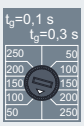
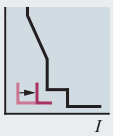
- Reduction in the rated current interval between a downstream LV HRC fuse and an upstream 3VA2 (cost savings):
  $I_n$ 3VA2 with ELISA characteristic = 1.6 * $I_n$ LV HRC fuse (instead of factor 2 with conventional characteristics)
  This also resulted in lower rated currents of the switching devices further upstream where applicable
- Simple selection of the 3VA:
  $I_n$ 3VA2 with ELISA characteristic = 1.6 * $I_n$ LV HRC fuse
- Simple setting of the parameters:
  Instead of the large number of setting parameters in the case of an ETU with LSI characteristic, setting an ETU340 ELISA could not be simpler. There is only the parameter $I_n$, and all others are coordinated with this.
- Faster tripping with ELISA:
  Reduced line load; a 3VA2 with ETU340 ELISA trips earlier than an LI/LSI trip unit.

*Example*

LV HRC fuse ($I_n$ 100 A) is to be protected by an upstream 3VA2.



Basic rules for setting the different trip parameters:

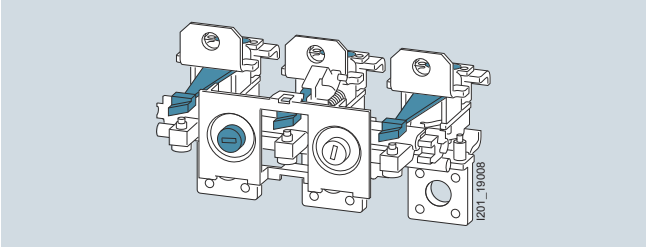
| | Parameter | Buttons | Effect on characteristic curve | Brief description | Cause | Example |
|---|---|---|---|---|---|---|
| L | $I_r$ |   |   | Operating current of the overload protection:<br>ETU $I_r$ = 0.4 … 1 x $I_n$<br>TMTU $I_r$ = 0.7 … 1 x $I_n$<br>Absolute values in A | Optimization of the overload range by setting to the operational current of the circuit to be protected | Overload range from 300 A |
| | $t_r$ |   |   | Delay time (or time-lag class) in the overload range. The set time is the tripping time at 6 x $I_r$ | Improved selectivity in the overload range in switchboard with several grade levels | The tripping time of $t_r$ = 10 s applies to 6 x $I_n$, in this case 6 x 300 A = 1800 A |
| S | $I_{sd}$ |   |   | Operating current of the short-time delayed short-circuit protection | Limitation of the short-circuit range in which the current has to be switched off more quickly but possibly with a slight time delay | At $I_r$ = 300 A and $I_{sd}$ = 5: Tripping at 1500 A following delay $t_{sd}$ |
| | $t_{sd}$ |   |   | Delay time of the short-time delayed short-circuit protection | Improved selectivity in the overload range in switchboard with several grade levels | $t_{sd}$ = 0.15 s: Tripping after 0.15 seconds for current values between $I_i$ and $I_{sd}$ |
| I | $I_i$ |   |   | Operating current of the instantaneous short-circuit protection | Limitation of the short-circuit range in which the impermissibly high current has to be switched off as quickly as possible | At $I_i$ = 2000 A instantaneous tripping for currents of > 2000 A |
| N | $I_N$ |   |   | Operating current of the neutral conductor protection function | Protection of the neutral conductor for overcurrent and short-circuit | At $I_N$ = ON, $I_N$ = 0.5 x $I_r$ and $I_r$ = 300 A, overload from 150 A in the neutral conductor, instantaneous tripping at 2000 A |
| G | $I_g$+ $t_g$ |   |   | Operating current of the ground-fault protection function and delay time to tripping | Line protection | At ground-fault currents from $I_r$ = 50 A: tripping after time $t_g$ = 0.1 |

### *Thermal-magnetic trip unit*

A thermal-magnetic trip unit consists of a thermal trip unit for protecting against overload, and a magnetic trip unit for protecting against short circuits. Both trip unit components are series-connected.

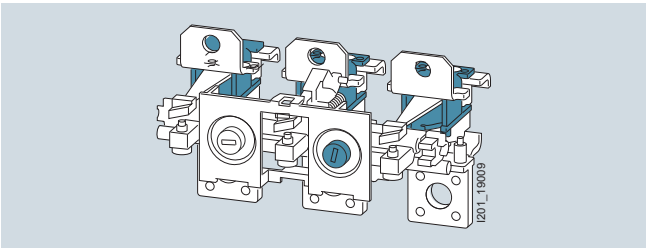
Thermal trip unit (L)

The thermal trip unit consists of a temperature-dependent bimetal that heats up as a result of the flow of current. This means the trip is current-dependent. The temperature rise in the bimetal strip depends not only on the current magnitude, but also on the ambient temperature of the molded case circuit breaker. All current values specified for thermal-magnetic trip units of 3VA circuit breakers refer to an ambient temperature of +50 °C.




Magnetic trip unit with short-circuit protection (I)

The magnetic trip unit with short-circuit protection comprises a yoke mounting through which a current path runs, and a flap armature that is kept at a distance from the yoke mounting by a tension spring.




If a short-circuit current flows along the current path, the magnetic field thus generated causes the flap armature to be moved towards the yoke mounting against the opposite force of the tension spring. The tripping time is almost current-independent and instantaneous. The flap armature releases the breaker mechanism and thus opens the switching contacts. Immediately after trip, the flap armature is moved back to its starting position by the restoring force of the tension spring.

## General data

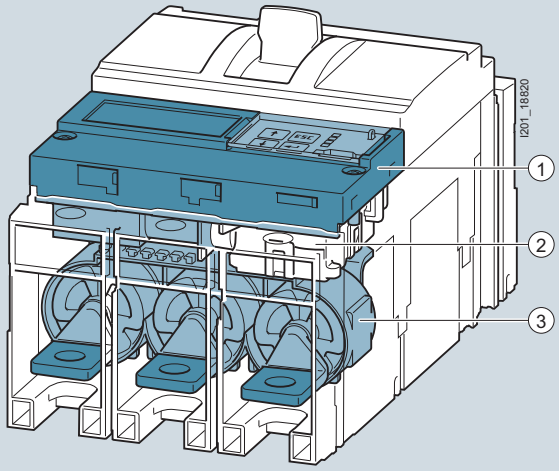
Application cases and trip unit types

The table below illustrates the applications for which different types of thermal-magnetic trip units can be used:

| | TM120M AM | TM210 FTFM | TM220 ATFM | TM240 ATAM |
|---|---|---|---|---|
| **Protection** | | | | |
| Starter protection | ✓ | -- | -- | -- |
| Line protection | -- | ✓ | ✓ | ✓ |
| **Version available with** | | | | |
| 1-pole and 2-pole breakers | -- | ✓ | -- | -- |
| 3-pole breaker | ✓ | ✓ | ✓ | ✓ |
| 4-pole breaker | -- | ✓ | ✓ | ✓ |
| **Available protection parameters** | | | | |
| $I_r$ adjustable | -- | -- | ✓ | ✓ |
| $I_i$ adjustable | ✓ | -- | -- | ✓ |
| $I_r$ fixed | -- | ✓ | -- | -- |
| $I_i$ fixed | -- | ✓ | ✓ | -- |
| $I_N$ [1] | -- | ✓ | ✓ | ✓ |

[1] 3VA10 only without N protection
3VA11 without, 50 % or 100 % N protection
50 % N protection ≥ $I_n$ 100 A and only in size 160 A

### *Electronic Trip Unit*




(1) Electronic Trip Unit (ETU)
(2) Maglatch
(3) Current sensor

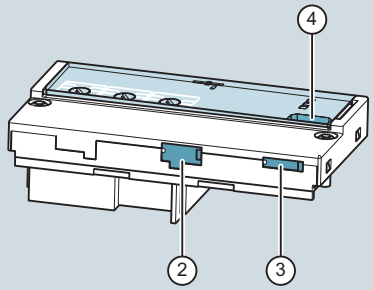
Connections on the ETU

An Electronic Trip Unit is based on the following concepts:

- Complete measurement of the current in the phases L1, L2 and L3, with N and currents to ground optional
- Rogowski coil
  - Very precise measurement of the current
  - Better ground-fault protection because the vectorial sum is more exact
- Evaluation of the current measurement values and constant comparison with the tripping limits
- Tripping by means of a maglatch

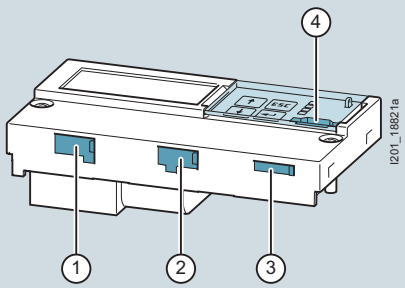
### *Connections*

ETU 3-series:




(1) Interface for external neutral current transformer for N conductor
(2) Interface for connection of an EFB300 external function box

ETU 5-series and 8-series:




(3) Interface for connection of an RCD820 residual current device
(4) Connection for TD300 and TD500 test devices

Protection functions

| | ETU310M I | ETU320 LI | ETU330 LIG | ETU340 ELISA® | ETU350 LSI | ETU350M LSI | ETU550 LSI | ETU560 LSIG | ETU850 LSI | ETU860 LSIG | ETU860M LSIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Protection** | | | | | | | | | | | |
| Starter protection | ✓ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Motor protection | -- | -- | -- | -- | -- | ✓ | -- | -- | -- | -- | ✓ |
| Line protection | -- | ✓ | ✓ | ✓ | ✓ | -- | ✓ | ✓ | ✓ | ✓ | -- |
| Generator protection | -- | ✓ | ✓ | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | -- |
| **Version available with** | | | | | | | | | | | |
| 3-pole without external neutral conductor transformer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | -- | -- | -- | -- | ✓ |
| 3-pole with external neutral conductor transformer | -- | -- | -- | -- | -- | -- | ✓ | ✓ | ✓ | ✓ | -- |
| 4-pole with protected neutral conductor | -- | ✓ | ✓ | ✓ | ✓ | -- | ✓ | ✓ | ✓ | ✓ | -- |
| **Available protection parameters** | | | | | | | | | | | |
| Characteristic in L range | $I^2t$ | $I^2t$ | $I^2t$ | $I^4t$ | $I^2t$ | $I^2t$ | $I^2t$ | $I^2t$ | $I^2t$ | $I^2t$ | $I^2t$ |
| $I_r$ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| $t_r$ at 6 x $I_r$ | -- | ✓ | ✓ | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | -- |
| $t_c$ | -- | -- | -- | -- | -- | ✓ | -- | -- | -- | -- | ✓ |
| $t_p$ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ✓ |
| Thermal image | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Thermal image can be switched on/off | -- | -- | -- | -- | -- | -- | ✓ | ✓ | ✓ | ✓ | -- |
| $I_{sd}$ | -- | -- | -- | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| $t_{sd}$ at 8 x $I_r$ | -- | -- | -- | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Characteristic in S range: $I^2t_{sd}$ | -- | -- | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | -- |
| Characteristic in S range: selectable $I^2t_{sd}$ / $t_{sd}$ | -- | -- | -- | -- | -- | -- | ✓ | ✓ | ✓ | ✓ | -- |
| $I_i$ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| $I_N$ [1] | -- | ✓ | ✓ | ✓ | ✓ | -- | ✓ | ✓ | ✓ | ✓ | -- |
| $I_g$ | -- | -- | ✓ | -- | -- | -- | -- | ✓ | -- | ✓ | ✓ |
| $t_g$ at 2 x $I_g$ | -- | -- | ✓ | -- | -- | -- | -- | ✓ | -- | ✓ | ✓ |
| Characteristic in G range: $I^2t_g$ | -- | -- | ✓ | -- | -- | -- | -- | ✓ | -- | ✓ | ✓ |
| Characteristic in G range: selectable $I^2t_g$ / $t_g$ | -- | -- | ✓ | -- | -- | -- | -- | ✓ | -- | ✓ | ✓ |
| Ground-fault alarm function | -- | -- | -- | -- | -- | -- | -- | ✓ | -- | ✓ | ✓ |
| Blocking protection | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | ✓ |
| ZSI | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Features and options** | | | | | | | | | | | |
| Setting by rotary switch | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | -- | -- | -- | -- | -- |
| Setting by ETU display | -- | -- | -- | -- | -- | -- | ✓ | ✓ | ✓ | ✓ | ✓ |
| Data shown on ETU display | -- | -- | -- | -- | -- | -- | ✓ | ✓ | ✓ | ✓ | ✓ |
| Metering function | -- | -- | -- | -- | -- | -- | -- | -- | ✓ | ✓ | ✓ |
| Communication option | -- | -- | -- | -- | -- | -- | ✓ | ✓ | ✓ | ✓ | ✓ |
| Front interface | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

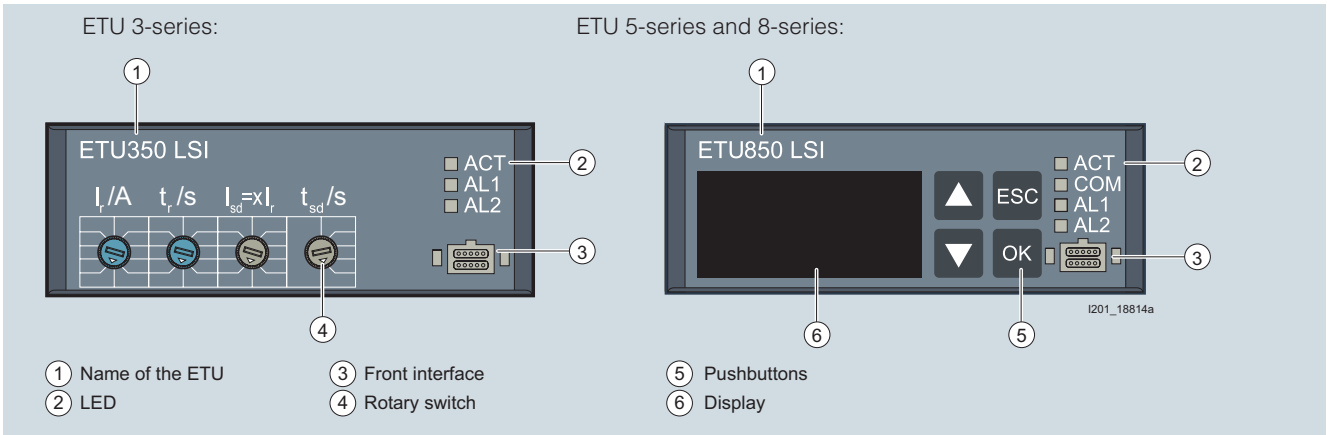
[1] Available in a version with external current transformer for N conductor or 4-pole breaker

✓ Available -- Not available

Operator controls

The following figure shows the available ETU types of the 3VA2 molded case circuit breakers.

You can decide which ETU to install according to the area of application.



## General data

- LED displays
  The following table explains what the LED displays mean:

| LED | | Meaning | Description |
|---|---|---|---|
| □ | ACT | Off | Current flow in the main current path is less than 20 % $I_n$. |
|  | ACT | Flashing | ETU 8-series:<br>Missing 24 V DC external power supply for metering function. |
|  | ACT | On | ETU ready, current flow greater than 20 % $I_n$. |
| □ | COM | Off | No communication with a COM800/COM100 via COM060. |
|  | COM | Flashing | Flashing after switching on indicates that an internal COM060 communication module has been detected.<br>After connection to this module is established, the LED will either go out (no external communication) or come on (see meaning). |
|  | COM | On | Active communication to the COM800/COM100 breaker data server. |
|  | ACT | On | Current flow between 90 % and 105 % $I_r$. |
|  | AL1 | On | |
| □ | AL2 | Off | |
|  | ACT | On | Current flow greater than 105 % $I_r$. |
|  | AL1 | On | |
|  | AL2 | On | |
|  | ACT | On | Overheating alarm |
|  | AL1 | Flashing | |
|  | AL2 | Flashing | |
|  | ACT | Flashing | Internal fault on ETU |
|  | COM | Flashing | |
|  | AL1 | Flashing | |
|  | AL2 | Flashing | |

- Electronic Trip Units of ETU 3-series:
  The trip units of the ETU 3-series have rotary switches.
- Display of the Electronic Trip Units of ETU 5-series and 8-series:
  The trip units of the ETU 5-series and 8-series have an LCD display. The displayed values are refreshed once per second.


The following table explains what the symbols in the display mean:

| Symbol | Meaning |
|---|---|
|  | If this symbol is activated, the indicated value is a measured value. |
|  | This symbol is shown when the first alarm threshold for this measured value was exceeded. |
|  | This symbol is shown when the second alarm threshold for this measured value was exceeded. |
|  | Display in parameter edit mode. The value can be adjusted with the arrow buttons. |
|  | If TRIP is shown, the display indicates the information from the previous tripping. |
|  | Naming of the displayed value. |

The following table explains what functions are performed by the buttons next to the display:

| Symbol | Meaning |
|---|---|
|  | Goes back to the previous screen page.<br>Increases a parameter in parameter edit mode. |
|  | Goes forward to the next screen page.<br>Decreases a parameter in parameter edit mode. |
|  | Goes to parameter edit mode when a parameter is displayed.<br>Confirms a parameter in parameter edit mode. |
|  | Goes to the standard display.<br>Discards a parameter in parameter edit mode. |

## General data

- Displays on ETU 5-series and 8-series
  The basic structure comprises the following displays:
  - Standard display
  - Alarm display
  - Measured value display
  - Parameter display

  If no selection is made within an adjustable time period, the standard display will appear.

**Standard display**

Shows the highest current in one of the three phases.
After timeout or ESC

**Alarm display**

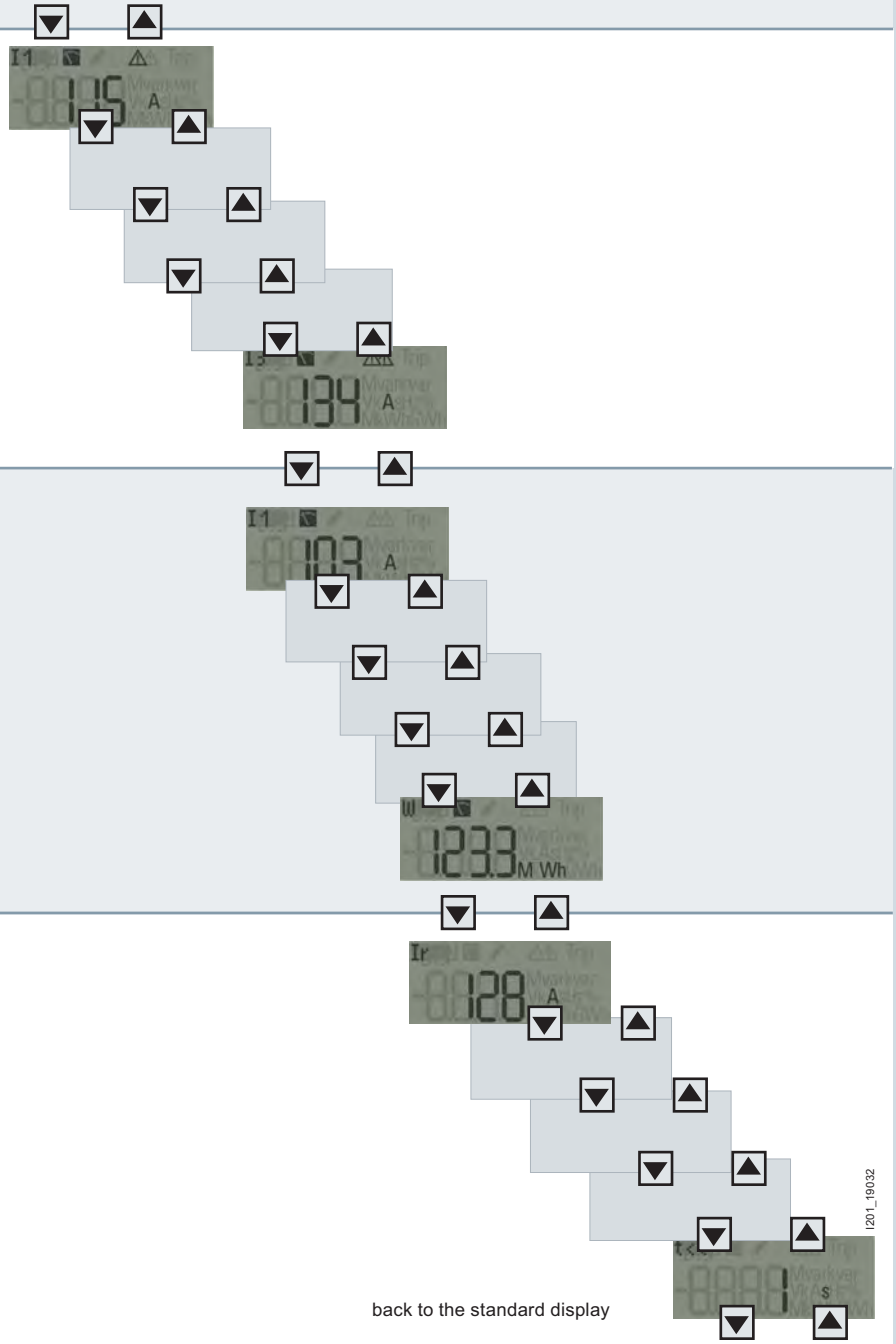
Up to five alarm displays are available.
They are only displayed if an alarm is active, otherwise, they are skipped.

**Measured value display**

Depending on the ETU type, the measured values available are displayed.

**Parameter display**

Displays the available parameters in succession.
Click (OK) in display mode, to change to edit mode



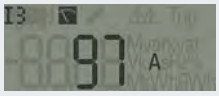
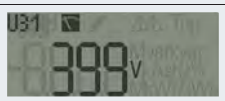
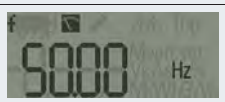
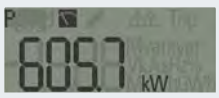
**Standard display**


**Alarm display**


Active alarms are displayed consecutively in screens AV1 … AV5. If no alarms are active, these screens are concealed.

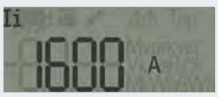
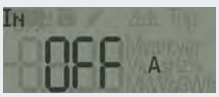
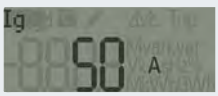
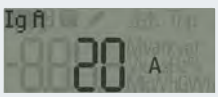
**Measured value display**

The table below explains the measured value display:

| Number | Screen | Measured value | Description | ETU550 | ETU560 | ETU850 | ETU860 |
|---|---|---|---|---|---|---|---|
| MV 1 |  | $I_1$ | Instantaneous current $I_1$ | ✓ | ✓ | ✓ | ✓ |
| MV 2 |  | $I_2$ | Instantaneous current $I_2$ | ✓ | ✓ | ✓ | ✓ |
| MV 3 |  | $I_3$ | Instantaneous current $I_3$ | ✓ | ✓ | ✓ | ✓ |
| MV 4 |  | $I_N$ | Instantaneous current in neutral conductor | ✓ | ✓ | ✓ | ✓ |
| MV 5 |  | $I_g$ | Instantaneous residual current to ground | -- | ✓ | -- | ✓ |
| MV 6 |  | $U_{12}$ | Instantaneous voltage $U_1$ - $U_2$ | -- | -- | ✓ | ✓ |
| MV 7 |  | $U_{23}$ | Instantaneous voltage $U_2$ - $U_3$ | -- | -- | ✓ | ✓ |
| MV 8 |  | $U_{31}$ | Instantaneous voltage $U_3$ - $U_1$ | -- | -- | ✓ | ✓ |
| MV 9 |  | f | Instantaneous frequency | -- | -- | ✓ | ✓ |
| MV 10 |  | P | Instantaneous active power (total) | -- | -- | ✓ | ✓ |
| MV 11 |  | Q | Instantaneous reactive power (total) | -- | -- | ✓ | ✓ |
| MV 12 |  | PF | Instantaneous power factor | -- | -- | ✓ | ✓ |
| MV 13 |  | W | Active energy import | -- | -- | ✓ | ✓ |

### Parameter display

The table below explains the parameter display:

| Number | Screen | Parameter | Description | ETU550 | ETU560 | ETU850 | ETU860 |
|---|---|---|---|---|---|---|---|
| PV 1 |  | $I_r$ | Overload protection Current | ✓ | ✓ | ✓ | ✓ |
| PV 2 |  | $t_r$ | Overload protection Delay time | ✓ | ✓ | ✓ | ✓ |
| PV 4 |  | ThM | Thermal image | ✓ | ✓ | ✓ | ✓ |
| PV 5 |  | $I_{sd}$ | Short-time delayed short-circuit protection | ✓ | ✓ | ✓ | ✓ |
| PV 6 |  | $t_{sd}$ | Short-time delayed short-circuit current delay time | ✓ | ✓ | ✓ | ✓ |
| PV 7 |  | $I^2t_{sd}$ | Characteristic curve in S range | ✓ | ✓ | ✓ | ✓ |
| PV 8a |  | ZSI S | Zone selective interlocking | ✓ | ✓ | ✓ | ✓ |
| PV 8b |  | ZSI G | Zone selective interlocking in the event of a ground fault | -- | ✓ | -- | ✓ |
| PV 9 |  | $I_i$ | Instantaneous short-circuit protection Current | ✓ | ✓ | ✓ | ✓ |
| PV 10 |  | $I_N$ | Overload protection in the neutral conductor | ✓[1)] | ✓[1)] | ✓[1)] | ✓[1)] |
| PV 11 |  | $I_g$ | Ground-fault protection Current | -- | ✓ | -- | ✓ |
| PV 12 |  | $t_g$ | Ground-fault protection Delay time | -- | ✓ | -- | ✓ |
| PV 13 |  | $I^2t_g$ | Characteristic curve for ground-fault protection | -- | ✓ | -- | ✓ |
| PV 14 |  | $I_{gA}$ | Ground fault alarm current | -- | ✓ | -- | ✓ |

[1)] Applies to 4-pole molded case circuit breakers and 3-pole molded case circuit breakers with connected external neutral conductor current transformer

- Setting and changing parameters

1. Use the arrow keys to navigate to the correct display.

2. Press the <OK> button.

Edit mode is active. Activation is confirmed by display of "pencil" symbol.


3. Use the arrow keys to adjust the parameter setting.

4. Confirm the setting with the <OK> button, or cancel the operation with <ESC>.

The setting is accepted with <OK>. The parameter display now appears.

- "Tripped" display

After the ETU has initiated a trip, the "Tripped" display automatically appears:


This screen can be identified by the word "Trip" which is displayed in the top, right-hand corner. The displayed current value shows the current at the moment of tripping.

Press <ESC> to exit the display.

The additional information contained in the "Tripped" display is explained in the table below:

| Number | Display in the title | Meaning | Unit |
|---|---|---|---|
| TV1 | LT | Tripped by overload protection | A |
| TV2 | ST | Tripped by short-time delayed short-circuit protection | A |
| TV3 | Inst | Tripped by instantaneous short-circuit protection | A, kA |
| TV4 | N | Tripped by overload in the neutral conductor | A |
| TV5 | GF | Tripped by ground-fault protection | A |
| TV6 | Temp | Tripped by overheating | % |
| TV12 | RCD trip | Tripped by RCD820 residual current device | % |

- Diagnostics display

When a TD500 test device is connected, you can use it to initiate a test. The following screen appears when a TD500 is connected and a test is in progress. The bar flashes at a frequency of 0.5 Hz.


The bar travels from left to right while testing is in progress. The test ends with a tripping operation.

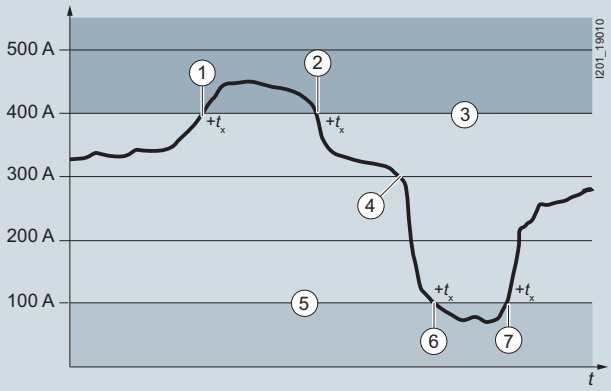
- Activation limits

The table below shows the activation limits for the ETUs:

| Current in one of the three phases | Meaning for the ETU |
|---|---|
| 0 ... 20 % $I_n$ | The ETU is not active. |
| 20 ... 25 % $I_n$ | The ETU is active, and the display and backlighting are off. |

Load acceptance and load shedding – load management

3VA molded case circuit breakers equipped with an ETU 3-series or higher series provide two current thresholds for the purpose of implementing a local load management function. Load shedding is the upper threshold, and load acceptance the lower threshold.




1. Incoming alarm "load shedding"
2. Outgoing alarm "load shedding"
3. Parameter load shedding 400 A
4. Current in one phase
5. Parameter load acceptance 100 A
6. Incoming alarm "load acceptance"
7. Outgoing alarm "load acceptance"

Note:

**No tripping operation**

Tripping is never initiated as a result of the current value crossing the upper or lower thresholds.

If the current in one phase exceeds the parameter setting for "load shedding", an incoming alarm "load shedding" is generated. Only when the current in all three phases drops below this threshold is an outgoing alarm "load shedding" generated.

The incoming and outgoing alarms can be output via an optional external expansion module and transferred via the communication function.

The opposite applies for the load acceptance threshold. If the current in all three phases drops below the parameter setting, an incoming alarm "load acceptance" is generated. If only one of the three currents exceeds the parameter setting, an outgoing alarm "load acceptance" is generated.

To prevent these alarms being generated by brief current peaks and troughs, they can be delayed by the time $t_x$ from 1 s to 15 s.

## General data

Measuring with a Rogowski coil

The Rogowski coil is a toroidal coil without a ferromagnetic core. It is used as a component in electronic measuring devices to measure alternating current.

Advantages of the current sensor:

- Each transformer can be optimized for its task and operating points
  - Transformers for power generation
  - Transformers for measurement
- Higher accuracy of current measurement and therefore higher accuracy for ground-fault currents

A power measurement is made possible by the more exact and more linear measurement of the current together with the integrated voltage tap in the molded case circuit breaker.

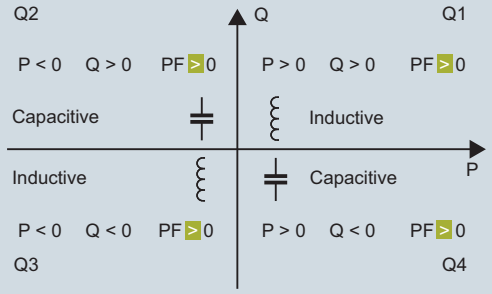
Accuracy levels of the specified measured values of the 8-series ETU, including the integrated current sensors:

| Measured value | Accuracy |
|---|---|
| Current | 1 % in the range from 0.2 ... 1.2 $I_n$ |
| Voltage | 1 % in the range from 80 ... 800 V |
| Active power, active energy | Class 2 acc. to IEC 61557-12 |

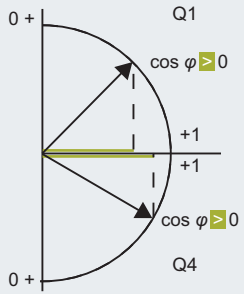
Interpretation of measured values:

**IEC convention**

Operation in all 4 quadrants (Q1, Q2, Q3, Q4)




cos φ values - limit value optimization (Q1, Q4)




PF Power factor

Measured current and voltage values are always positive.

The "normal" direction of energy flow of the 3VA molded case circuit breaker is top down (can also be adjusted using the powerconfig software), corresponding to operation in quadrants Q1 and Q4. If the molded case circuit breaker is supplied from below, it is operated in quadrants Q2 and Q3.

## Application

3VA molded case circuit breakers can be deployed in various fields where they perform a variety of different protection tasks. The following table shows the areas in which the 3VA molded case circuit breakers are used – sorted according to breaking capacity:

| | Buildings | | | | Industry | |
|---|---|---|---|---|---|---|
| **Molded case circuit breakers** | | | | | | |
| | 3VA1 | 3VA1, 3VA2 | 3VA1, 3VA2 | 3VA1, 3VA2 | 3VA1, 3VA2 | 3VA1, 3VA2 |
| **Breaking capacity** | | | | | | |
| | Up to 25 kA | Up to 55 kA | Up to 85 kA | Up to 150 kA | Up to 110 kA | Up to 150 kA |
| **Segments** | | | | | | |
| | Residential buildings | Commercial buildings | Infrastructure | Industrial buildings | Functional shell | Factory automation/ process automation |
| **Examples** | | | | | | |
| |  |  |  |  |  |  |
| | • Single high-rise building in the form of a residential building<br>• Building complexes<br>• Residential buildings | • Office blocks<br>• Banks<br>• Hotels<br>• Bowling alleys<br>• Cinemas<br>• Shopping malls<br>• Hospitals<br>• Universities and schools | • Airports<br>• Railway stations<br>• Sports stadiums<br>• Arenas<br>• Port facilities<br>• Trade fairs and exhibitions | • Industrial parks<br>• Warehouses<br>• Logistics centers | • Paper industry<br>• Computer centers<br>• Oil and gas industry<br>• Food and beverages industry | • Presses<br>• Electroplating<br>• Rolling mills<br>• Mills<br>• Agitators and blending plants<br>• Production lines |

3VA molded case circuit breakers are used in a variety of functions, as shown in the table below:

| | 3VA1 | 3VA2 |
|---|---|---|
| Line protection | ✓ | ✓ |
| Protection for starter combinations | ✓ | ✓ |
| Motor protection | -- | ✓ |
| Switch disconnectors in keeping with the design of a molded case circuit breaker to IEC 60947-3 | ✓ | -- |
| Standard applications to 70 kA and thermal-magnetic trip units | ✓ | -- |
| Generator protection | -- | ✓ |
| High breaking capacity | -- | ✓ |
| Selectivity | -- | ✓ |
| Communication | -- | ✓ |

Molded case circuit breakers are primarily designed for the following functions:

- Subdistribution systems
- Industrial distribution systems
- Final distribution systems
- On-site isolation
- Use in machines

*** You can order this quantity or a multiple thereof.**

## Notes





**NEW**

Direct reference to the products in the Industry Mall from the selection and ordering data tables:

Article No.
www.siemens.com/product?Article No.
3KD2832-0NE10-0

Paper catalog:
To get more product information enter the Web address plus Article No.

PDF catalog:
Get more product information with just a mouse click.

**For further technical product information:**

Siemens Industry Online Support:
www.siemens.com/lowvoltage/product-support

→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

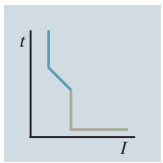
## Selection and ordering data

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

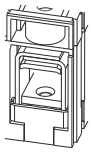
| Connection technology | Type | Rated current $I_n$ A | Current setting of the inverse-time delayed overload protection "L" $I_r$ A | Operating current of the instanta-neous short-circuit protection "I" $I_i$ A | DT | $I_{cu}$ up to 25 kA at 240 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|

### 1-pole, fixed-mounted, 3VA11, up to 160 A Thermal-magnetic trip unit

I201_19027

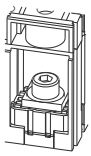



***Line protection, 1-pole, TM210 FTFM***
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3ED16-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3ED16-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3ED16-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3ED16-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3ED16-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3ED16-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3ED16-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3ED16-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3ED16-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3ED16-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3ED16-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3ED12-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3ED12-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3ED12-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3ED12-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3ED12-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3ED12-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3ED12-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3ED12-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3ED12-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3ED12-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3ED12-0AA0 |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | **$I_{cu}$ to 36 kA at 240 V, standard breaking capacity S** (S) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| A | | | |
| | | ***Line protection, 1-pole, TM210 FTFM*** With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$ | |
| | | **Connection with box terminal** | |
| 16 | | 3VA1196-4ED16-0AA0 | |
| 20 | | 3VA1120-4ED16-0AA0 | |
| 25 | | 3VA1125-4ED16-0AA0 | |
| 32 | | 3VA1132-4ED16-0AA0 | |
| 40 | | 3VA1140-4ED16-0AA0 | |
| 50 | | 3VA1150-4ED16-0AA0 | |
| 63 | | 3VA1163-4ED16-0AA0 | |
| 80 | | 3VA1180-4ED16-0AA0 | |
| 100 | | 3VA1110-4ED16-0AA0 | |
| 125 | | 3VA1112-4ED16-0AA0 | |
| 160 | | 3VA1116-4ED16-0AA0 | |
| | | **Connection with lug terminal** | |
| 16 | | 3VA1196-4ED12-0AA0 | |
| 20 | | 3VA1120-4ED12-0AA0 | |
| 25 | | 3VA1125-4ED12-0AA0 | |
| 32 | | 3VA1132-4ED12-0AA0 | |
| 40 | | 3VA1140-4ED12-0AA0 | |
| 50 | | 3VA1150-4ED12-0AA0 | |
| 63 | | 3VA1163-4ED12-0AA0 | |
| 80 | | 3VA1180-4ED12-0AA0 | |
| 100 | | 3VA1110-4ED12-0AA0 | |
| 125 | | 3VA1112-4ED12-0AA0 | |
| 160 | | 3VA1116-4ED12-0AA0 | |



*** You can order this quantity or a multiple thereof.**

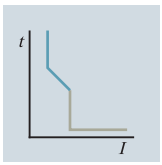
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

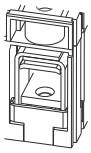
| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instantaneous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | Article No. www.siemens.com/product?Article No. | Basic price per PU |

### 2-pole, fixed-mounted, 3VA11, up to 160 A
### Thermal-magnetic trip unit


I201_19027

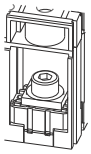



***Line protection, 2-pole, TM210 FTFM***
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3ED26-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3ED26-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3ED26-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3ED26-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3ED26-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3ED26-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3ED26-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3ED26-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3ED26-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3ED26-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3ED26-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3ED22-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3ED22-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3ED22-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3ED22-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3ED22-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3ED22-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3ED22-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3ED22-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3ED22-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3ED22-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3ED22-0AA0 |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/4 and 1/5 |
|---|---|---|
| | | Article No. www.siemens.com/product?Article No. / Basic price per PU |
| A | | |

2

***Line protection, 2-pole, TM210 FTFM***
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$

| | Connection with box terminal |
|---|---|
| 16 | 3VA1196-4ED26-0AA0 |
| 20 | 3VA1120-4ED26-0AA0 |
| 25 | 3VA1125-4ED26-0AA0 |
| 32 | 3VA1132-4ED26-0AA0 |
| 40 | 3VA1140-4ED26-0AA0 |
| 50 | 3VA1150-4ED26-0AA0 |
| 63 | 3VA1163-4ED26-0AA0 |
| 80 | 3VA1180-4ED26-0AA0 |
| 100 | 3VA1110-4ED26-0AA0 |
| 125 | 3VA1112-4ED26-0AA0 |
| 160 | 3VA1116-4ED26-0AA0 |

| | Connection with lug terminal |
|---|---|
| 16 | 3VA1196-4ED22-0AA0 |
| 20 | 3VA1120-4ED22-0AA0 |
| 25 | 3VA1125-4ED22-0AA0 |
| 32 | 3VA1132-4ED22-0AA0 |
| 40 | 3VA1140-4ED22-0AA0 |
| 50 | 3VA1150-4ED22-0AA0 |
| 63 | 3VA1163-4ED22-0AA0 |
| 80 | 3VA1180-4ED22-0AA0 |
| 100 | 3VA1110-4ED22-0AA0 |
| 125 | 3VA1112-4ED22-0AA0 |
| 160 | 3VA1116-4ED22-0AA0 |

*** You can order this quantity or a multiple thereof.**

## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 16 kA at 415 V, very low breaking capacity B (B) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | | |

### 3-pole, fixed-mounted, 3VA10, up to 100 A
### Thermal-magnetic trip unit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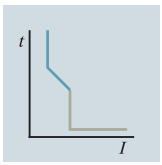
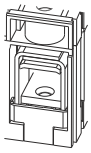
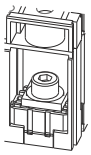



***Line protection, TM210 FTFM***
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA10 | 16 | 16 | 320 | 3VA1096-2ED36-0AA0 |
| | 20 | 20 | 320 | 3VA1020-2ED36-0AA0 |
| | 25 | 25 | 320 | 3VA1025-2ED36-0AA0 |
| | 32 | 32 | 320 | 3VA1032-2ED36-0AA0 |
| | 40 | 40 | 400 | 3VA1040-2ED36-0AA0 |
| | 50 | 50 | 500 | 3VA1050-2ED36-0AA0 |
| | 63 | 63 | 630 | 3VA1063-2ED36-0AA0 |
| | 80 | 80 | 800 | 3VA1080-2ED36-0AA0 |
| | 100 | 100 | 1000 | 3VA1010-2ED36-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA10 | 16 | 16 | 320 | 3VA1096-2ED32-0AA0 |
| | 20 | 20 | 320 | 3VA1020-2ED32-0AA0 |
| | 25 | 25 | 320 | 3VA1025-2ED32-0AA0 |
| | 32 | 32 | 320 | 3VA1032-2ED32-0AA0 |
| | 40 | 40 | 400 | 3VA1040-2ED32-0AA0 |
| | 50 | 50 | 500 | 3VA1050-2ED32-0AA0 |
| | 63 | 63 | 630 | 3VA1063-2ED32-0AA0 |
| | 80 | 80 | 800 | 3VA1080-2ED32-0AA0 |
| | 100 | 100 | 1000 | 3VA1010-2ED32-0AA0 |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 — Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/4 and 1/5 — Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|
| A | | | | | | |
| ***Line protection, TM210 FTFM*** With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | | |
| 16 | | 3VA1096-3ED36-0AA0 | | | 3VA1096-4ED36-0AA0 | |
| 20 | | 3VA1020-3ED36-0AA0 | | | 3VA1020-4ED36-0AA0 | |
| 25 | | 3VA1025-3ED36-0AA0 | | | 3VA1025-4ED36-0AA0 | |
| 32 | | 3VA1032-3ED36-0AA0 | | | 3VA1032-4ED36-0AA0 | |
| 40 | | 3VA1040-3ED36-0AA0 | | | 3VA1040-4ED36-0AA0 | |
| 50 | | 3VA1050-3ED36-0AA0 | | | 3VA1050-4ED36-0AA0 | |
| 63 | | 3VA1063-3ED36-0AA0 | | | 3VA1063-4ED36-0AA0 | |
| 80 | | 3VA1080-3ED36-0AA0 | | | 3VA1080-4ED36-0AA0 | |
| 100 | | 3VA1010-3ED36-0AA0 | | | 3VA1010-4ED36-0AA0 | |
| | | **Connection with lug terminal** | | | | |
| 16 | | 3VA1096-3ED32-0AA0 | | | 3VA1096-4ED32-0AA0 | |
| 20 | | 3VA1020-3ED32-0AA0 | | | 3VA1020-4ED32-0AA0 | |
| 25 | | 3VA1025-3ED32-0AA0 | | | 3VA1025-4ED32-0AA0 | |
| 32 | | 3VA1032-3ED32-0AA0 | | | 3VA1032-4ED32-0AA0 | |
| 40 | | 3VA1040-3ED32-0AA0 | | | 3VA1040-4ED32-0AA0 | |
| 50 | | 3VA1050-3ED32-0AA0 | | | 3VA1050-4ED32-0AA0 | |
| 63 | | 3VA1063-3ED32-0AA0 | | | 3VA1063-4ED32-0AA0 | |
| 80 | | 3VA1080-3ED32-0AA0 | | | 3VA1080-4ED32-0AA0 | |
| 100 | | 3VA1010-3ED32-0AA0 | | | 3VA1010-4ED32-0AA0 | |



*** You can order this quantity or a multiple thereof.**

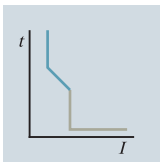
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

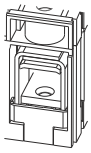
| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| | | A | A | A | | | |

### 3-pole, fixed-mounted, 3VA11, up to 160 A
### Thermal-magnetic trip unit

I201_19027

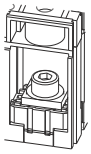



#### *Line protection, TM210 FTFM*
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3ED36-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3ED36-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3ED36-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3ED36-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3ED36-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3ED36-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3ED36-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3ED36-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3ED36-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3ED36-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3ED36-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3ED32-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3ED32-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3ED32-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3ED32-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3ED32-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3ED32-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3ED32-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3ED32-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3ED32-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3ED32-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3ED32-0AA0 |

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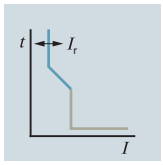
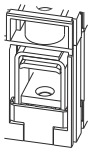
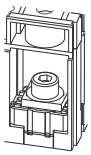



#### *Line protection, TM220 ATFM*
With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 320 | 3VA1196-3EE36-0AA0 |
| | 20 | 14 ... 20 | 320 | 3VA1120-3EE36-0AA0 |
| | 25 | 18 ... 25 | 320 | 3VA1125-3EE36-0AA0 |
| | 32 | 22 ... 32 | 320 | 3VA1132-3EE36-0AA0 |
| | 40 | 28 ... 40 | 400 | 3VA1140-3EE36-0AA0 |
| | 50 | 35 ... 50 | 500 | 3VA1150-3EE36-0AA0 |
| | 63 | 44 ... 63 | 630 | 3VA1163-3EE36-0AA0 |
| | 80 | 56 ... 80 | 800 | 3VA1180-3EE36-0AA0 |
| | 100 | 70 ... 100 | 1000 | 3VA1110-3EE36-0AA0 |
| | 125 | 88 ... 125 | 1250 | 3VA1112-3EE36-0AA0 |
| | 160 | 112 ... 160 | 1600 | 3VA1116-3EE36-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 320 | 3VA1196-3EE32-0AA0 |
| | 20 | 14 ... 20 | 320 | 3VA1120-3EE32-0AA0 |
| | 25 | 18 ... 25 | 320 | 3VA1125-3EE32-0AA0 |
| | 32 | 22 ... 32 | 320 | 3VA1132-3EE32-0AA0 |
| | 40 | 28 ... 40 | 400 | 3VA1140-3EE32-0AA0 |
| | 50 | 35 ... 50 | 500 | 3VA1150-3EE32-0AA0 |
| | 63 | 44 ... 63 | 630 | 3VA1163-3EE32-0AA0 |
| | 80 | 56 ... 80 | 800 | 3VA1180-3EE32-0AA0 |
| | 100 | 70 ... 100 | 1000 | 3VA1110-3EE32-0AA0 |
| | 125 | 88 ... 125 | 1250 | 3VA1112-3EE32-0AA0 |
| | 160 | 112 ... 160 | 1600 | 3VA1116-3EE32-0AA0 |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | **$I_{cu}$ to 36 kA at 415 V, standard breaking capacity S** (S) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | **$I_{cu}$ up to 70 kA at 415 V, high breaking capacity H** (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |
| ***Line protection, TM210 FTFM*** With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 16 | | 3VA1196-4ED36-0AA0 | | | 3VA1196-5ED36-0AA0 | | | 3VA1196-6ED36-0AA0 | |
| 20 | | 3VA1120-4ED36-0AA0 | | | 3VA1120-5ED36-0AA0 | | | 3VA1120-6ED36-0AA0 | |
| 25 | | 3VA1125-4ED36-0AA0 | | | 3VA1125-5ED36-0AA0 | | | 3VA1125-6ED36-0AA0 | |
| 32 | | 3VA1132-4ED36-0AA0 | | | 3VA1132-5ED36-0AA0 | | | 3VA1132-6ED36-0AA0 | |
| 40 | | 3VA1140-4ED36-0AA0 | | | 3VA1140-5ED36-0AA0 | | | 3VA1140-6ED36-0AA0 | |
| 50 | | 3VA1150-4ED36-0AA0 | | | 3VA1150-5ED36-0AA0 | | | 3VA1150-6ED36-0AA0 | |
| 63 | | 3VA1163-4ED36-0AA0 | | | 3VA1163-5ED36-0AA0 | | | 3VA1163-6ED36-0AA0 | |
| 80 | | 3VA1180-4ED36-0AA0 | | | 3VA1180-5ED36-0AA0 | | | 3VA1180-6ED36-0AA0 | |
| 100 | | 3VA1110-4ED36-0AA0 | | | 3VA1110-5ED36-0AA0 | | | 3VA1110-6ED36-0AA0 | |
| 125 | | 3VA1112-4ED36-0AA0 | | | 3VA1112-5ED36-0AA0 | | | 3VA1112-6ED36-0AA0 | |
| 160 | | 3VA1116-4ED36-0AA0 | | | 3VA1116-5ED36-0AA0 | | | 3VA1116-6ED36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 16 | | 3VA1196-4ED32-0AA0 | | | 3VA1196-5ED32-0AA0 | | | 3VA1196-6ED32-0AA0 | |
| 20 | | 3VA1120-4ED32-0AA0 | | | 3VA1120-5ED32-0AA0 | | | 3VA1120-6ED32-0AA0 | |
| 25 | | 3VA1125-4ED32-0AA0 | | | 3VA1125-5ED32-0AA0 | | | 3VA1125-6ED32-0AA0 | |
| 32 | | 3VA1132-4ED32-0AA0 | | | 3VA1132-5ED32-0AA0 | | | 3VA1132-6ED32-0AA0 | |
| 40 | | 3VA1140-4ED32-0AA0 | | | 3VA1140-5ED32-0AA0 | | | 3VA1140-6ED32-0AA0 | |
| 50 | | 3VA1150-4ED32-0AA0 | | | 3VA1150-5ED32-0AA0 | | | 3VA1150-6ED32-0AA0 | |
| 63 | | 3VA1163-4ED32-0AA0 | | | 3VA1163-5ED32-0AA0 | | | 3VA1163-6ED32-0AA0 | |
| 80 | | 3VA1180-4ED32-0AA0 | | | 3VA1180-5ED32-0AA0 | | | 3VA1180-6ED32-0AA0 | |
| 100 | | 3VA1110-4ED32-0AA0 | | | 3VA1110-5ED32-0AA0 | | | 3VA1110-6ED32-0AA0 | |
| 125 | | 3VA1112-4ED32-0AA0 | | | 3VA1112-5ED32-0AA0 | | | 3VA1112-6ED32-0AA0 | |
| 160 | | 3VA1116-4ED32-0AA0 | | | 3VA1116-5ED32-0AA0 | | | 3VA1116-6ED32-0AA0 | |
| ***Line protection, TM220 ATFM*** With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 16 | | 3VA1196-4EE36-0AA0 | | | 3VA1196-5EE36-0AA0 | | | 3VA1196-6EE36-0AA0 | |
| 20 | | 3VA1120-4EE36-0AA0 | | | 3VA1120-5EE36-0AA0 | | | 3VA1120-6EE36-0AA0 | |
| 25 | | 3VA1125-4EE36-0AA0 | | | 3VA1125-5EE36-0AA0 | | | 3VA1125-6EE36-0AA0 | |
| 32 | | 3VA1132-4EE36-0AA0 | | | 3VA1132-5EE36-0AA0 | | | 3VA1132-6EE36-0AA0 | |
| 40 | | 3VA1140-4EE36-0AA0 | | | 3VA1140-5EE36-0AA0 | | | 3VA1140-6EE36-0AA0 | |
| 50 | | 3VA1150-4EE36-0AA0 | | | 3VA1150-5EE36-0AA0 | | | 3VA1150-6EE36-0AA0 | |
| 63 | | 3VA1163-4EE36-0AA0 | | | 3VA1163-5EE36-0AA0 | | | 3VA1163-6EE36-0AA0 | |
| 80 | | 3VA1180-4EE36-0AA0 | | | 3VA1180-5EE36-0AA0 | | | 3VA1180-6EE36-0AA0 | |
| 100 | | 3VA1110-4EE36-0AA0 | | | 3VA1110-5EE36-0AA0 | | | 3VA1110-6EE36-0AA0 | |
| 125 | | 3VA1112-4EE36-0AA0 | | | 3VA1112-5EE36-0AA0 | | | 3VA1112-6EE36-0AA0 | |
| 160 | | 3VA1116-4EE36-0AA0 | | | 3VA1116-5EE36-0AA0 | | | 3VA1116-6EE36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 16 | | 3VA1196-4EE32-0AA0 | | | 3VA1196-5EE32-0AA0 | | | 3VA1196-6EE32-0AA0 | |
| 20 | | 3VA1120-4EE32-0AA0 | | | 3VA1120-5EE32-0AA0 | | | 3VA1120-6EE32-0AA0 | |
| 25 | | 3VA1125-4EE32-0AA0 | | | 3VA1125-5EE32-0AA0 | | | 3VA1125-6EE32-0AA0 | |
| 32 | | 3VA1132-4EE32-0AA0 | | | 3VA1132-5EE32-0AA0 | | | 3VA1132-6EE32-0AA0 | |
| 40 | | 3VA1140-4EE32-0AA0 | | | 3VA1140-5EE32-0AA0 | | | 3VA1140-6EE32-0AA0 | |
| 50 | | 3VA1150-4EE32-0AA0 | | | 3VA1150-5EE32-0AA0 | | | 3VA1150-6EE32-0AA0 | |
| 63 | | 3VA1163-4EE32-0AA0 | | | 3VA1163-5EE32-0AA0 | | | 3VA1163-6EE32-0AA0 | |
| 80 | | 3VA1180-4EE32-0AA0 | | | 3VA1180-5EE32-0AA0 | | | 3VA1180-6EE32-0AA0 | |
| 100 | | 3VA1110-4EE32-0AA0 | | | 3VA1110-5EE32-0AA0 | | | 3VA1110-6EE32-0AA0 | |
| 125 | | 3VA1112-4EE32-0AA0 | | | 3VA1112-5EE32-0AA0 | | | 3VA1112-6EE32-0AA0 | |
| 160 | | 3VA1116-4EE32-0AA0 | | | 3VA1116-5EE32-0AA0 | | | 3VA1116-6EE32-0AA0 | |

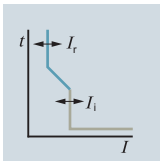
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

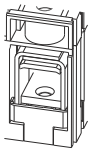
| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | | |

### 3-pole, fixed-mounted, 3VA11/3VA12, up to 250 A
### Thermal-magnetic trip unit

I201_19035

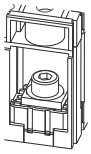



***Line protection, TM240 ATAM***
With adjustable overload protection $I_r$ and adjustable short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 160 ... 320 | 3VA1196-3EF36-0AA0 |
| | 20 | 14 ... 20 | 160 ... 320 | 3VA1120-3EF36-0AA0 |
| | 25 | 18 ... 25 | 160 ... 320 | 3VA1125-3EF36-0AA0 |
| | 32 | 16 ... 32 | 160 ... 320 | 3VA1132-3EF36-0AA0 |
| | 40 | 28 ... 40 | 200 ... 400 | 3VA1140-3EF36-0AA0 |
| | 50 | 35 ... 50 | 250 ... 500 | 3VA1150-3EF36-0AA0 |
| | 63 | 44 ... 63 | 315 ... 630 | 3VA1163-3EF36-0AA0 |
| | 80 | 56 ... 80 | 400 ... 800 | 3VA1180-3EF36-0AA0 |
| | 100 | 70 ... 100 | 500 ... 1000 | 3VA1110-3EF36-0AA0 |
| | 125 | 88 ... 125 | 625 ... 1250 | 3VA1112-3EF36-0AA0 |
| | 160 | 112 ... 160 | 800 ... 1600 | 3VA1116-3EF36-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 160 ... 320 | 3VA1196-3EF32-0AA0 |
| | 20 | 14 ... 20 | 160 ... 320 | 3VA1120-3EF32-0AA0 |
| | 25 | 18 ... 25 | 160 ... 320 | 3VA1125-3EF32-0AA0 |
| | 32 | 16 ... 32 | 160 ... 320 | 3VA1132-3EF32-0AA0 |
| | 40 | 28 ... 40 | 200 ... 400 | 3VA1140-3EF32-0AA0 |
| | 50 | 35 ... 50 | 250 ... 500 | 3VA1150-3EF32-0AA0 |
| | 63 | 44 ... 63 | 315 ... 630 | 3VA1163-3EF32-0AA0 |
| | 80 | 56 ... 80 | 400 ... 800 | 3VA1180-3EF32-0AA0 |
| | 100 | 70 ... 100 | 500 ... 1000 | 3VA1110-3EF32-0AA0 |
| | 125 | 88 ... 125 | 625 ... 1250 | 3VA1112-3EF32-0AA0 |
| | 160 | 112 ... 160 | 800 ... 1600 | 3VA1116-3EF32-0AA0 |
| 3VA12 | 160 | 112 ... 160 | 800 ... 1600 | -- |
| | 200 | 140 ... 200 | 1000 ... 2000 | -- |
| | 250 | 175 ... 250 | 1250 ... 2500 | -- |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | **$I_{cu}$ to 36 kA at 415 V, standard breaking capacity S** (S) See "Overview", p. 1/4 and 1/5 | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** (M) See "Overview", p. 1/4 and 1/5 | DT | **$I_{cu}$ up to 70 kA at 415 V, high breaking capacity H** (H) See "Overview", p. 1/4 and 1/5 |
|---|---|---|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. Basic price per PU | | Article No. www.siemens.com/product?Article No. Basic price per PU | | Article No. www.siemens.com/product?Article No. Basic price per PU |
| A | | | | | | |
| ***Line protection, TM240 ATAM*** With adjustable overload protection $I_r$ and adjustable short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | | |
| 16 | | 3VA1196-4EF36-0AA0 | | 3VA1196-5EF36-0AA0 | | 3VA1196-6EF36-0AA0 |
| 20 | | 3VA1120-4EF36-0AA0 | | 3VA1120-5EF36-0AA0 | | 3VA1120-6EF36-0AA0 |
| 25 | | 3VA1125-4EF36-0AA0 | | 3VA1125-5EF36-0AA0 | | 3VA1125-6EF36-0AA0 |
| 32 | | 3VA1132-4EF36-0AA0 | | 3VA1132-5EF36-0AA0 | | 3VA1132-6EF36-0AA0 |
| 40 | | 3VA1140-4EF36-0AA0 | | 3VA1140-5EF36-0AA0 | | 3VA1140-6EF36-0AA0 |
| 50 | | 3VA1150-4EF36-0AA0 | | 3VA1150-5EF36-0AA0 | | 3VA1150-6EF36-0AA0 |
| 63 | | 3VA1163-4EF36-0AA0 | | 3VA1163-5EF36-0AA0 | | 3VA1163-6EF36-0AA0 |
| 80 | | 3VA1180-4EF36-0AA0 | | 3VA1180-5EF36-0AA0 | | 3VA1180-6EF36-0AA0 |
| 100 | | 3VA1110-4EF36-0AA0 | | 3VA1110-5EF36-0AA0 | | 3VA1110-6EF36-0AA0 |
| 125 | | 3VA1112-4EF36-0AA0 | | 3VA1112-5EF36-0AA0 | | 3VA1112-6EF36-0AA0 |
| 160 | | 3VA1116-4EF36-0AA0 | | 3VA1116-5EF36-0AA0 | | 3VA1116-6EF36-0AA0 |
| | | **Connection with lug terminal** | | | | |
| 16 | | 3VA1196-4EF32-0AA0 | | 3VA1196-5EF32-0AA0 | | 3VA1196-6EF32-0AA0 |
| 20 | | 3VA1120-4EF32-0AA0 | | 3VA1120-5EF32-0AA0 | | 3VA1120-6EF32-0AA0 |
| 25 | | 3VA1125-4EF32-0AA0 | | 3VA1125-5EF32-0AA0 | | 3VA1125-6EF32-0AA0 |
| 32 | | 3VA1132-4EF32-0AA0 | | 3VA1132-5EF32-0AA0 | | 3VA1132-6EF32-0AA0 |
| 40 | | 3VA1140-4EF32-0AA0 | | 3VA1140-5EF32-0AA0 | | 3VA1140-6EF32-0AA0 |
| 50 | | 3VA1150-4EF32-0AA0 | | 3VA1150-5EF32-0AA0 | | 3VA1150-6EF32-0AA0 |
| 63 | | 3VA1163-4EF32-0AA0 | | 3VA1163-5EF32-0AA0 | | 3VA1163-6EF32-0AA0 |
| 80 | | 3VA1180-4EF32-0AA0 | | 3VA1180-5EF32-0AA0 | | 3VA1180-6EF32-0AA0 |
| 100 | | 3VA1110-4EF32-0AA0 | | 3VA1110-5EF32-0AA0 | | 3VA1110-6EF32-0AA0 |
| 125 | | 3VA1112-4EF32-0AA0 | | 3VA1112-5EF32-0AA0 | | 3VA1112-6EF32-0AA0 |
| 160 | | 3VA1116-4EF32-0AA0 | | 3VA1116-5EF32-0AA0 | | 3VA1116-6EF32-0AA0 |
| 160 | | 3VA1216-4EF32-0AA0 | | 3VA1216-5EF32-0AA0 | | 3VA1216-6EF32-0AA0 |
| 200 | | 3VA1220-4EF32-0AA0 | | 3VA1220-5EF32-0AA0 | | 3VA1220-6EF32-0AA0 |
| 250 | | 3VA1225-4EF32-0AA0 | | 3VA1225-5EF32-0AA0 | | 3VA1225-6EF32-0AA0 |



*** You can order this quantity or a multiple thereof.**

## Line protection

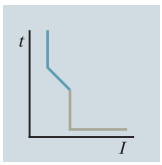
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | **$I_{cu}$ up to 16 kA at 415 V, very low breaking capacity B** (B) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| | | A | A | A | | | |

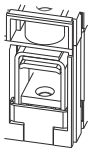


### 4-pole, fixed-mounted, 3VA10, up to 100 A
### Thermal-magnetic trip unit


I201_19027

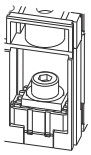



***Line protection, TM210 FTFM, without neutral conductor protection***
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA10 | 16 | 16 | 320 | **3VA1096-2ED46-0AA0** |
| | 20 | 20 | 320 | **3VA1020-2ED46-0AA0** |
| | 25 | 25 | 320 | **3VA1025-2ED46-0AA0** |
| | 32 | 32 | 320 | **3VA1032-2ED46-0AA0** |
| | 40 | 40 | 400 | **3VA1040-2ED46-0AA0** |
| | 50 | 50 | 500 | **3VA1050-2ED46-0AA0** |
| | 63 | 63 | 630 | **3VA1063-2ED46-0AA0** |
| | 80 | 80 | 800 | **3VA1080-2ED46-0AA0** |
| | 100 | 100 | 1000 | **3VA1010-2ED46-0AA0** |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA10 | 16 | 16 | 320 | **3VA1096-2ED42-0AA0** |
| | 20 | 20 | 320 | **3VA1020-2ED42-0AA0** |
| | 25 | 25 | 320 | **3VA1025-2ED42-0AA0** |
| | 32 | 32 | 320 | **3VA1032-2ED42-0AA0** |
| | 40 | 40 | 400 | **3VA1040-2ED42-0AA0** |
| | 50 | 50 | 500 | **3VA1050-2ED42-0AA0** |
| | 63 | 63 | 630 | **3VA1063-2ED42-0AA0** |
| | 80 | 80 | 800 | **3VA1080-2ED42-0AA0** |
| | 100 | 100 | 1000 | **3VA1010-2ED42-0AA0** |



*** You can order this quantity or a multiple thereof.**

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 | | DT | $I_{cu}$ to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. | Basic price per PU | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| A | | | | | | |
| ***Line protection, TM210 FTFM, without neutral conductor protection*** With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | | |
| 16 | | **3VA1096-3ED46-0AA0** | | | **3VA1096-4ED46-0AA0** | |
| 20 | | **3VA1020-3ED46-0AA0** | | | **3VA1020-4ED46-0AA0** | |
| 25 | | **3VA1025-3ED46-0AA0** | | | **3VA1025-4ED46-0AA0** | |
| 32 | | **3VA1032-3ED46-0AA0** | | | **3VA1032-4ED46-0AA0** | |
| 40 | | **3VA1040-3ED46-0AA0** | | | **3VA1040-4ED46-0AA0** | |
| 50 | | **3VA1050-3ED46-0AA0** | | | **3VA1050-4ED46-0AA0** | |
| 63 | | **3VA1063-3ED46-0AA0** | | | **3VA1063-4ED46-0AA0** | |
| 80 | | **3VA1080-3ED46-0AA0** | | | **3VA1080-4ED46-0AA0** | |
| 100 | | **3VA1010-3ED46-0AA0** | | | **3VA1010-4ED46-0AA0** | |
| | | **Connection with lug terminal** | | | | |
| 16 | | **3VA1096-3ED42-0AA0** | | | **3VA1096-4ED42-0AA0** | |
| 20 | | **3VA1020-3ED42-0AA0** | | | **3VA1020-4ED42-0AA0** | |
| 25 | | **3VA1025-3ED42-0AA0** | | | **3VA1025-4ED42-0AA0** | |
| 32 | | **3VA1032-3ED42-0AA0** | | | **3VA1032-4ED42-0AA0** | |
| 40 | | **3VA1040-3ED42-0AA0** | | | **3VA1040-4ED42-0AA0** | |
| 50 | | **3VA1050-3ED42-0AA0** | | | **3VA1050-4ED42-0AA0** | |
| 63 | | **3VA1063-3ED42-0AA0** | | | **3VA1063-4ED42-0AA0** | |
| 80 | | **3VA1080-3ED42-0AA0** | | | **3VA1080-4ED42-0AA0** | |
| 100 | | **3VA1010-3ED42-0AA0** | | | **3VA1010-4ED42-0AA0** | |



*** You can order this quantity or a multiple thereof.**

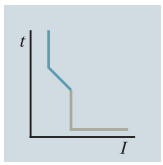
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

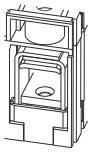
| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | | |

### 4-pole, fixed-mounted, 3VA11, up to 160 A
### Thermal-magnetic trip unit


I201_19027

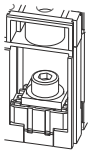



***Line protection, TM210 FTFM, without neutral conductor protection***
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3ED46-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3ED46-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3ED46-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3ED46-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3ED46-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3ED46-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3ED46-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3ED46-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3ED46-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3ED46-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3ED46-0AA0 |

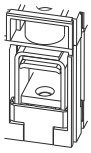


**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3ED42-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3ED42-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3ED42-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3ED42-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3ED42-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3ED42-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3ED42-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3ED42-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3ED42-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3ED42-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3ED42-0AA0 |

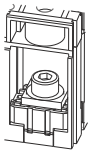

I201_19027


***Line protection, TM210 FTFM, 50 % neutral conductor protection***
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 100 | 100 | 1000 | 3VA1110-3FD46-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3FD46-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3FD46-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 100 | 100 | 1000 | 3VA1110-3FD42-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3FD42-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3FD42-0AA0 |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | **$I_{cu}$ to 36 kA at 415 V, standard breaking capacity S** (S) See "Overview", p. 1/4 and 1/5 | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** (M) See "Overview", p. 1/4 and 1/5 | DT | **$I_{cu}$ up to 70 kA at 415 V, high breaking capacity H** (H) See "Overview", p. 1/4 and 1/5 |
|---|---|---|---|---|---|---|
| A | | Article No. www.siemens.com/product?Article No. / Basic price per PU | | Article No. www.siemens.com/product?Article No. / Basic price per PU | | Article No. www.siemens.com/product?Article No. / Basic price per PU |
| ***Line protection, TM210 FTFM, without neutral conductor protection*** With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | | |
| 16 | | 3VA1196-4ED46-0AA0 | | 3VA1196-5ED46-0AA0 | | 3VA1196-6ED46-0AA0 |
| 20 | | 3VA1120-4ED46-0AA0 | | 3VA1120-5ED46-0AA0 | | 3VA1120-6ED46-0AA0 |
| 25 | | 3VA1125-4ED46-0AA0 | | 3VA1125-5ED46-0AA0 | | 3VA1125-6ED46-0AA0 |
| 32 | | 3VA1132-4ED46-0AA0 | | 3VA1132-5ED46-0AA0 | | 3VA1132-6ED46-0AA0 |
| 40 | | 3VA1140-4ED46-0AA0 | | 3VA1140-5ED46-0AA0 | | 3VA1140-6ED46-0AA0 |
| 50 | | 3VA1150-4ED46-0AA0 | | 3VA1150-5ED46-0AA0 | | 3VA1150-6ED46-0AA0 |
| 63 | | 3VA1163-4ED46-0AA0 | | 3VA1163-5ED46-0AA0 | | 3VA1163-6ED46-0AA0 |
| 80 | | 3VA1180-4ED46-0AA0 | | 3VA1180-5ED46-0AA0 | | 3VA1180-6ED46-0AA0 |
| 100 | | 3VA1110-4ED46-0AA0 | | 3VA1110-5ED46-0AA0 | | 3VA1110-6ED46-0AA0 |
| 125 | | 3VA1112-4ED46-0AA0 | | 3VA1112-5ED46-0AA0 | | 3VA1112-6ED46-0AA0 |
| 160 | | 3VA1116-4ED46-0AA0 | | 3VA1116-5ED46-0AA0 | | 3VA1116-6ED46-0AA0 |
| | | **Connection with lug terminal** | | | | |
| 16 | | 3VA1196-4ED42-0AA0 | | 3VA1196-5ED42-0AA0 | | 3VA1196-6ED42-0AA0 |
| 20 | | 3VA1120-4ED42-0AA0 | | 3VA1120-5ED42-0AA0 | | 3VA1120-6ED42-0AA0 |
| 25 | | 3VA1125-4ED42-0AA0 | | 3VA1125-5ED42-0AA0 | | 3VA1125-6ED42-0AA0 |
| 32 | | 3VA1132-4ED42-0AA0 | | 3VA1132-5ED42-0AA0 | | 3VA1132-6ED42-0AA0 |
| 40 | | 3VA1140-4ED42-0AA0 | | 3VA1140-5ED42-0AA0 | | 3VA1140-6ED42-0AA0 |
| 50 | | 3VA1150-4ED42-0AA0 | | 3VA1150-5ED42-0AA0 | | 3VA1150-6ED42-0AA0 |
| 63 | | 3VA1163-4ED42-0AA0 | | 3VA1163-5ED42-0AA0 | | 3VA1163-6ED42-0AA0 |
| 80 | | 3VA1180-4ED42-0AA0 | | 3VA1180-5ED42-0AA0 | | 3VA1180-6ED42-0AA0 |
| 100 | | 3VA1110-4ED42-0AA0 | | 3VA1110-5ED42-0AA0 | | 3VA1110-6ED42-0AA0 |
| 125 | | 3VA1112-4ED42-0AA0 | | 3VA1112-5ED42-0AA0 | | 3VA1112-6ED42-0AA0 |
| 160 | | 3VA1116-4ED42-0AA0 | | 3VA1116-5ED42-0AA0 | | 3VA1116-6ED42-0AA0 |
| ***Line protection, TM210 FTFM, 50 % neutral conductor protection*** With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | | |
| 100 | | 3VA1110-4FD46-0AA0 | | 3VA1110-5FD46-0AA0 | | 3VA1110-6FD46-0AA0 |
| 125 | | 3VA1112-4FD46-0AA0 | | 3VA1112-5FD46-0AA0 | | 3VA1112-6FD46-0AA0 |
| 160 | | 3VA1116-4FD46-0AA0 | | 3VA1116-5FD46-0AA0 | | 3VA1116-6FD46-0AA0 |
| | | **Connection with lug terminal** | | | | |
| 100 | | 3VA1110-4FD42-0AA0 | | 3VA1110-5FD42-0AA0 | | 3VA1110-6FD42-0AA0 |
| 125 | | 3VA1112-4FD42-0AA0 | | 3VA1112-5FD42-0AA0 | | 3VA1112-6FD42-0AA0 |
| 160 | | 3VA1116-4FD42-0AA0 | | 3VA1116-5FD42-0AA0 | | 3VA1116-6FD42-0AA0 |

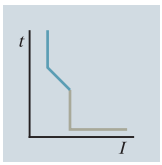
*** You can order this quantity or a multiple thereof.**

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

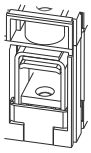
| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | | |

### 4-pole, fixed-mounted, 3VA11, up to 160 A
### Thermal-magnetic trip unit

I201_19027

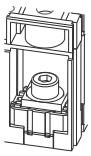



***Line protection, TM210 FTFM, 100 % neutral conductor protection***
With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3GD46-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3GD46-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3GD46-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3GD46-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3GD46-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3GD46-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3GD46-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3GD46-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3GD46-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3GD46-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3GD46-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 16 | 320 | 3VA1196-3GD42-0AA0 |
| | 20 | 20 | 320 | 3VA1120-3GD42-0AA0 |
| | 25 | 25 | 320 | 3VA1125-3GD42-0AA0 |
| | 32 | 32 | 320 | 3VA1132-3GD42-0AA0 |
| | 40 | 40 | 400 | 3VA1140-3GD42-0AA0 |
| | 50 | 50 | 500 | 3VA1150-3GD42-0AA0 |
| | 63 | 63 | 630 | 3VA1163-3GD42-0AA0 |
| | 80 | 80 | 800 | 3VA1180-3GD42-0AA0 |
| | 100 | 100 | 1000 | 3VA1110-3GD42-0AA0 |
| | 125 | 125 | 1250 | 3VA1112-3GD42-0AA0 |
| | 160 | 160 | 1600 | 3VA1116-3GD42-0AA0 |

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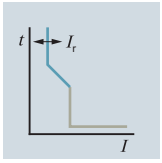
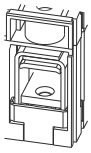
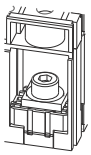



***Line protection, TM220 ATFM, without neutral conductor protection***
With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 320 | 3VA1196-3EE46-0AA0 |
| | 20 | 14 ... 20 | 320 | 3VA1120-3EE46-0AA0 |
| | 25 | 18 ... 25 | 320 | 3VA1125-3EE46-0AA0 |
| | 32 | 22 ... 32 | 320 | 3VA1132-3EE46-0AA0 |
| | 40 | 28 ... 40 | 400 | 3VA1140-3EE46-0AA0 |
| | 50 | 35 ... 50 | 500 | 3VA1150-3EE46-0AA0 |
| | 63 | 44 ... 63 | 630 | 3VA1163-3EE46-0AA0 |
| | 80 | 56 ... 80 | 800 | 3VA1180-3EE46-0AA0 |
| | 100 | 70 ... 100 | 1000 | 3VA1110-3EE46-0AA0 |
| | 125 | 88 ... 125 | 1250 | 3VA1112-3EE46-0AA0 |
| | 160 | 112 ... 160 | 1600 | 3VA1116-3EE46-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 320 | 3VA1196-3EE42-0AA0 |
| | 20 | 14 ... 20 | 320 | 3VA1120-3EE42-0AA0 |
| | 25 | 18 ... 25 | 320 | 3VA1125-3EE42-0AA0 |
| | 32 | 22 ... 32 | 320 | 3VA1132-3EE42-0AA0 |
| | 40 | 28 ... 40 | 400 | 3VA1140-3EE42-0AA0 |
| | 50 | 35 ... 50 | 500 | 3VA1150-3EE42-0AA0 |
| | 63 | 44 ... 63 | 630 | 3VA1163-3EE42-0AA0 |
| | 80 | 56 ... 80 | 800 | 3VA1180-3EE42-0AA0 |
| | 100 | 70 ... 100 | 1000 | 3VA1110-3EE42-0AA0 |
| | 125 | 88 ... 125 | 1250 | 3VA1112-3EE42-0AA0 |
| | 160 | 112 ... 160 | 1600 | 3VA1116-3EE42-0AA0 |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | **$I_{cu}$ to 36 kA at 415 V, standard breaking capacity S** (S) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | **$I_{cu}$ up to 70 kA at 415 V, high breaking capacity H** (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |
| ***Line protection, TM210 FTFM, 100 % neutral conductor protection*** With fixed overload protection $I_r$ and fixed short-circuit protection $I_i$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 16 | | 3VA1196-4GD46-0AA0 | | | 3VA1196-5GD46-0AA0 | | | 3VA1196-6GD46-0AA0 | |
| 20 | | 3VA1120-4GD46-0AA0 | | | 3VA1120-5GD46-0AA0 | | | 3VA1120-6GD46-0AA0 | |
| 25 | | 3VA1125-4GD46-0AA0 | | | 3VA1125-5GD46-0AA0 | | | 3VA1125-6GD46-0AA0 | |
| 32 | | 3VA1132-4GD46-0AA0 | | | 3VA1132-5GD46-0AA0 | | | 3VA1132-6GD46-0AA0 | |
| 40 | | 3VA1140-4GD46-0AA0 | | | 3VA1140-5GD46-0AA0 | | | 3VA1140-6GD46-0AA0 | |
| 50 | | 3VA1150-4GD46-0AA0 | | | 3VA1150-5GD46-0AA0 | | | 3VA1150-6GD46-0AA0 | |
| 63 | | 3VA1163-4GD46-0AA0 | | | 3VA1163-5GD46-0AA0 | | | 3VA1163-6GD46-0AA0 | |
| 80 | | 3VA1180-4GD46-0AA0 | | | 3VA1180-5GD46-0AA0 | | | 3VA1180-6GD46-0AA0 | |
| 100 | | 3VA1110-4GD46-0AA0 | | | 3VA1110-5GD46-0AA0 | | | 3VA1110-6GD46-0AA0 | |
| 125 | | 3VA1112-4GD46-0AA0 | | | 3VA1112-5GD46-0AA0 | | | 3VA1112-6GD46-0AA0 | |
| 160 | | 3VA1116-4GD46-0AA0 | | | 3VA1116-5GD46-0AA0 | | | 3VA1116-6GD46-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 16 | | 3VA1196-4GD42-0AA0 | | | 3VA1196-5GD42-0AA0 | | | 3VA1196-6GD42-0AA0 | |
| 20 | | 3VA1120-4GD42-0AA0 | | | 3VA1120-5GD42-0AA0 | | | 3VA1120-6GD42-0AA0 | |
| 25 | | 3VA1125-4GD42-0AA0 | | | 3VA1125-5GD42-0AA0 | | | 3VA1125-6GD42-0AA0 | |
| 32 | | 3VA1132-4GD42-0AA0 | | | 3VA1132-5GD42-0AA0 | | | 3VA1132-6GD42-0AA0 | |
| 40 | | 3VA1140-4GD42-0AA0 | | | 3VA1140-5GD42-0AA0 | | | 3VA1140-6GD42-0AA0 | |
| 50 | | 3VA1150-4GD42-0AA0 | | | 3VA1150-5GD42-0AA0 | | | 3VA1150-6GD42-0AA0 | |
| 63 | | 3VA1163-4GD42-0AA0 | | | 3VA1163-5GD42-0AA0 | | | 3VA1163-6GD42-0AA0 | |
| 80 | | 3VA1180-4GD42-0AA0 | | | 3VA1180-5GD42-0AA0 | | | 3VA1180-6GD42-0AA0 | |
| 100 | | 3VA1110-4GD42-0AA0 | | | 3VA1110-5GD42-0AA0 | | | 3VA1110-6GD42-0AA0 | |
| 125 | | 3VA1112-4GD42-0AA0 | | | 3VA1112-5GD42-0AA0 | | | 3VA1112-6GD42-0AA0 | |
| 160 | | 3VA1116-4GD42-0AA0 | | | 3VA1116-5GD42-0AA0 | | | 3VA1116-6GD42-0AA0 | |
| ***Line protection, TM220 ATFM, without neutral conductor protection*** With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 16 | | 3VA1196-4EE46-0AA0 | | | 3VA1196-5EE46-0AA0 | | | 3VA1196-6EE46-0AA0 | |
| 20 | | 3VA1120-4EE46-0AA0 | | | 3VA1120-5EE46-0AA0 | | | 3VA1120-6EE46-0AA0 | |
| 25 | | 3VA1125-4EE46-0AA0 | | | 3VA1125-5EE46-0AA0 | | | 3VA1125-6EE46-0AA0 | |
| 32 | | 3VA1132-4EE46-0AA0 | | | 3VA1132-5EE46-0AA0 | | | 3VA1132-6EE46-0AA0 | |
| 40 | | 3VA1140-4EE46-0AA0 | | | 3VA1140-5EE46-0AA0 | | | 3VA1140-6EE46-0AA0 | |
| 50 | | 3VA1150-4EE46-0AA0 | | | 3VA1150-5EE46-0AA0 | | | 3VA1150-6EE46-0AA0 | |
| 63 | | 3VA1163-4EE46-0AA0 | | | 3VA1163-5EE46-0AA0 | | | 3VA1163-6EE46-0AA0 | |
| 80 | | 3VA1180-4EE46-0AA0 | | | 3VA1180-5EE46-0AA0 | | | 3VA1180-6EE46-0AA0 | |
| 100 | | 3VA1110-4EE46-0AA0 | | | 3VA1110-5EE46-0AA0 | | | 3VA1110-6EE46-0AA0 | |
| 125 | | 3VA1112-4EE46-0AA0 | | | 3VA1112-5EE46-0AA0 | | | 3VA1112-6EE46-0AA0 | |
| 160 | | 3VA1116-4EE46-0AA0 | | | 3VA1116-5EE46-0AA0 | | | 3VA1116-6EE46-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 16 | | 3VA1196-4EE42-0AA0 | | | 3VA1196-5EE42-0AA0 | | | 3VA1196-6EE42-0AA0 | |
| 20 | | 3VA1120-4EE42-0AA0 | | | 3VA1120-5EE42-0AA0 | | | 3VA1120-6EE42-0AA0 | |
| 25 | | 3VA1125-4EE42-0AA0 | | | 3VA1125-5EE42-0AA0 | | | 3VA1125-6EE42-0AA0 | |
| 32 | | 3VA1132-4EE42-0AA0 | | | 3VA1132-5EE42-0AA0 | | | 3VA1132-6EE42-0AA0 | |
| 40 | | 3VA1140-4EE42-0AA0 | | | 3VA1140-5EE42-0AA0 | | | 3VA1140-6EE42-0AA0 | |
| 50 | | 3VA1150-4EE42-0AA0 | | | 3VA1150-5EE42-0AA0 | | | 3VA1150-6EE42-0AA0 | |
| 63 | | 3VA1163-4EE42-0AA0 | | | 3VA1163-5EE42-0AA0 | | | 3VA1163-6EE42-0AA0 | |
| 80 | | 3VA1180-4EE42-0AA0 | | | 3VA1180-5EE42-0AA0 | | | 3VA1180-6EE42-0AA0 | |
| 100 | | 3VA1110-4EE42-0AA0 | | | 3VA1110-5EE42-0AA0 | | | 3VA1110-6EE42-0AA0 | |
| 125 | | 3VA1112-4EE42-0AA0 | | | 3VA1112-5EE42-0AA0 | | | 3VA1112-6EE42-0AA0 | |
| 160 | | 3VA1116-4EE42-0AA0 | | | 3VA1116-5EE42-0AA0 | | | 3VA1116-6EE42-0AA0 | |

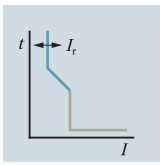
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | Article No. www.siemens.com/product?Article No. | Basic price per PU |

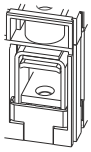
### 4-pole, fixed-mounted, 3VA11, up to 160 A
### Thermal-magnetic trip unit

I201_19028



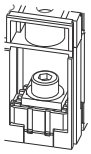

***Line protection, TM220 ATFM, 50 % neutral conductor protection***
With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$

**Connection with box terminal**



| | | | | |
|---|---|---|---|---|
| 3VA11 | 100 | 70 ... 100 | 1000 | 3VA1110-3FE46-0AA0 |
| | 125 | 88 ... 125 | 1250 | 3VA1112-3FE46-0AA0 |
| | 160 | 112 ... 160 | 1600 | 3VA1116-3FE46-0AA0 |

**Connection with lug terminal**



| | | | | |
|---|---|---|---|---|
| 3VA11 | 100 | 70 ... 100 | 1000 | 3VA1110-3FE42-0AA0 |
| | 125 | 88 ... 125 | 1250 | 3VA1112-3FE42-0AA0 |
| | 160 | 112 ... 160 | 1600 | 3VA1116-3FE42-0AA0 |

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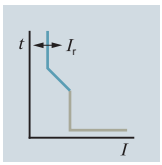
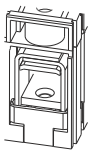


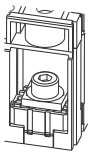

***Line protection, TM220 ATFM, 100 % neutral conductor protection***
With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$

**Connection with box terminal**



| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 320 | 3VA1196-3GE46-0AA0 |
| | 20 | 14 ... 20 | 320 | 3VA1120-3GE46-0AA0 |
| | 25 | 18 ... 25 | 320 | 3VA1125-3GE46-0AA0 |
| | 32 | 22 ... 32 | 320 | 3VA1132-3GE46-0AA0 |
| | 40 | 28 ... 40 | 400 | 3VA1140-3GE46-0AA0 |
| | 50 | 35 ... 50 | 500 | 3VA1150-3GE46-0AA0 |
| | 63 | 44 ... 63 | 630 | 3VA1163-3GE46-0AA0 |
| | 80 | 56 ... 80 | 800 | 3VA1180-3GE46-0AA0 |
| | 100 | 70 ... 100 | 1000 | 3VA1110-3GE46-0AA0 |
| | 125 | 88 ... 125 | 1250 | 3VA1112-3GE46-0AA0 |
| | 160 | 112 ... 160 | 1600 | 3VA1116-3GE46-0AA0 |

**Connection with lug terminal**



| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 320 | 3VA1196-3GE42-0AA0 |
| | 20 | 14 ... 20 | 320 | 3VA1120-3GE42-0AA0 |
| | 25 | 18 ... 25 | 320 | 3VA1125-3GE42-0AA0 |
| | 32 | 22 ... 32 | 320 | 3VA1132-3GE42-0AA0 |
| | 40 | 28 ... 40 | 400 | 3VA1140-3GE42-0AA0 |
| | 50 | 35 ... 50 | 500 | 3VA1150-3GE42-0AA0 |
| | 63 | 44 ... 63 | 630 | 3VA1163-3GE42-0AA0 |
| | 80 | 56 ... 80 | 800 | 3VA1180-3GE42-0AA0 |
| | 100 | 70 ... 100 | 1000 | 3VA1110-3GE42-0AA0 |
| | 125 | 88 ... 125 | 1250 | 3VA1112-3GE42-0AA0 |
| | 160 | 112 ... 160 | 1600 | 3VA1116-3GE42-0AA0 |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/4 and 1/5 | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 | DT | $I_{cu}$ up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 |
|---|---|---|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. Basic price per PU | | Article No. www.siemens.com/product?Article No. Basic price per PU | | Article No. www.siemens.com/product?Article No. Basic price per PU |
| A | | | | | | |

***Line protection, TM220 ATFM, 50 % neutral conductor protection***
With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$

**Connection with box terminal**

| | | | |
|---|---|---|---|
| 100 | 3VA1110-4FE46-0AA0 | 3VA1110-5FE46-0AA0 | 3VA1110-6FE46-0AA0 |
| 125 | 3VA1112-4FE46-0AA0 | 3VA1112-5FE46-0AA0 | 3VA1112-6FE46-0AA0 |
| 160 | 3VA1116-4FE46-0AA0 | 3VA1116-5FE46-0AA0 | 3VA1116-6FE46-0AA0 |

**Connection with lug terminal**

| | | | |
|---|---|---|---|
| 100 | 3VA1110-4FE42-0AA0 | 3VA1110-5FE42-0AA0 | 3VA1110-6FE42-0AA0 |
| 125 | 3VA1112-4FE42-0AA0 | 3VA1112-5FE42-0AA0 | 3VA1112-6FE42-0AA0 |
| 160 | 3VA1116-4FE42-0AA0 | 3VA1116-5FE42-0AA0 | 3VA1116-6FE42-0AA0 |

***Line protection, TM220 ATFM, 100 % neutral conductor protection***
With adjustable overload protection $I_r$ and fixed short-circuit protection $I_i$

**Connection with box terminal**

| | | | |
|---|---|---|---|
| 16 | 3VA1196-4GE46-0AA0 | 3VA1196-5GE46-0AA0 | 3VA1196-6GE46-0AA0 |
| 20 | 3VA1120-4GE46-0AA0 | 3VA1120-5GE46-0AA0 | 3VA1120-6GE46-0AA0 |
| 25 | 3VA1125-4GE46-0AA0 | 3VA1125-5GE46-0AA0 | 3VA1125-6GE46-0AA0 |
| 32 | 3VA1132-4GE46-0AA0 | 3VA1132-5GE46-0AA0 | 3VA1132-6GE46-0AA0 |
| 40 | 3VA1140-4GE46-0AA0 | 3VA1140-5GE46-0AA0 | 3VA1140-6GE46-0AA0 |
| 50 | 3VA1150-4GE46-0AA0 | 3VA1150-5GE46-0AA0 | 3VA1150-6GE46-0AA0 |
| 63 | 3VA1163-4GE46-0AA0 | 3VA1163-5GE46-0AA0 | 3VA1163-6GE46-0AA0 |
| 80 | 3VA1180-4GE46-0AA0 | 3VA1180-5GE46-0AA0 | 3VA1180-6GE46-0AA0 |
| 100 | 3VA1110-4GE46-0AA0 | 3VA1110-5GE46-0AA0 | 3VA1110-6GE46-0AA0 |
| 125 | 3VA1112-4GE46-0AA0 | 3VA1112-5GE46-0AA0 | 3VA1112-6GE46-0AA0 |
| 160 | 3VA1116-4GE46-0AA0 | 3VA1116-5GE46-0AA0 | 3VA1116-6GE46-0AA0 |

**Connection with lug terminal**

| | | | |
|---|---|---|---|
| 16 | 3VA1196-4GE42-0AA0 | 3VA1196-5GE42-0AA0 | 3VA1196-6GE42-0AA0 |
| 20 | 3VA1120-4GE42-0AA0 | 3VA1120-5GE42-0AA0 | 3VA1120-6GE42-0AA0 |
| 25 | 3VA1125-4GE42-0AA0 | 3VA1125-5GE42-0AA0 | 3VA1125-6GE42-0AA0 |
| 32 | 3VA1132-4GE42-0AA0 | 3VA1132-5GE42-0AA0 | 3VA1132-6GE42-0AA0 |
| 40 | 3VA1140-4GE42-0AA0 | 3VA1140-5GE42-0AA0 | 3VA1140-6GE42-0AA0 |
| 50 | 3VA1150-4GE42-0AA0 | 3VA1150-5GE42-0AA0 | 3VA1150-6GE42-0AA0 |
| 63 | 3VA1163-4GE42-0AA0 | 3VA1163-5GE42-0AA0 | 3VA1163-6GE42-0AA0 |
| 80 | 3VA1180-4GE42-0AA0 | 3VA1180-5GE42-0AA0 | 3VA1180-6GE42-0AA0 |
| 100 | 3VA1110-4GE42-0AA0 | 3VA1110-5GE42-0AA0 | 3VA1110-6GE42-0AA0 |
| 125 | 3VA1112-4GE42-0AA0 | 3VA1112-5GE42-0AA0 | 3VA1112-6GE42-0AA0 |
| 160 | 3VA1116-4GE42-0AA0 | 3VA1116-5GE42-0AA0 | 3VA1116-6GE42-0AA0 |

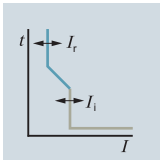
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| | | A | A | A | | | |

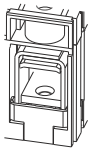
2

### 4-pole, fixed-mounted, 3VA11/3VA12, up to 250 A
### Thermal-magnetic trip unit

I201_19035

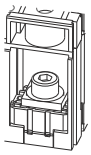



#### *Line protection, TM240 ATAM, without neutral conductor protection*
With adjustable overload protection $I_r$ and adjustable short-circuit protection $I_i$



**Connection with box terminal**

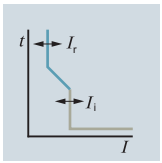
| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 160 ... 320 | 3VA1196-3EF46-0AA0 |
| | 20 | 14 ... 20 | 160 ... 320 | 3VA1120-3EF46-0AA0 |
| | 25 | 18 ... 25 | 160 ... 320 | 3VA1125-3EF46-0AA0 |
| | 32 | 16 ... 32 | 160 ... 320 | 3VA1132-3EF46-0AA0 |
| | 40 | 28 ... 40 | 200 ... 400 | 3VA1140-3EF46-0AA0 |
| | 50 | 35 ... 50 | 250 ... 500 | 3VA1150-3EF46-0AA0 |
| | 63 | 44 ... 63 | 315 ... 630 | 3VA1163-3EF46-0AA0 |
| | 80 | 56 ... 80 | 400 ... 800 | 3VA1180-3EF46-0AA0 |
| | 100 | 70 ... 100 | 500 ... 1000 | 3VA1110-3EF46-0AA0 |
| | 125 | 88 ... 125 | 625 ... 1250 | 3VA1112-3EF46-0AA0 |
| | 160 | 112 ... 160 | 800 ... 1600 | 3VA1116-3EF46-0AA0 |



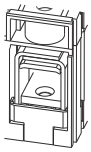
**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 160 ... 320 | 3VA1196-3EF42-0AA0 |
| | 20 | 14 ... 20 | 160 ... 320 | 3VA1120-3EF42-0AA0 |
| | 25 | 18 ... 25 | 160 ... 320 | 3VA1125-3EF42-0AA0 |
| | 32 | 16 ... 32 | 160 ... 320 | 3VA1132-3EF42-0AA0 |
| | 40 | 28 ... 40 | 200 ... 400 | 3VA1140-3EF42-0AA0 |
| | 50 | 35 ... 50 | 250 ... 500 | 3VA1150-3EF42-0AA0 |
| | 63 | 44 ... 63 | 315 ... 630 | 3VA1163-3EF42-0AA0 |
| | 80 | 56 ... 80 | 400 ... 800 | 3VA1180-3EF42-0AA0 |
| | 100 | 70 ... 100 | 500 ... 1000 | 3VA1110-3EF42-0AA0 |
| | 125 | 88 ... 125 | 625 ... 1250 | 3VA1112-3EF42-0AA0 |
| | 160 | 112 ... 160 | 800 ... 1600 | 3VA1116-3EF42-0AA0 |
| 3VA12 | 160 | 112 ... 160 | 800 ... 1600 | -- |
| | 200 | 140 ... 200 | 1000 ... 2000 | -- |
| | 250 | 175 ... 250 | 1250 ... 2500 | -- |

I201_19035

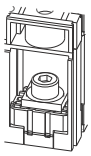



#### *Line protection, TM240 ATAM, 50 % neutral conductor protection*
With adjustable overload protection $I_r$ and adjustable short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 100 | 70 ... 100 | 500 ... 1000 | 3VA1110-3FF46-0AA0 |
| | 125 | 88 ... 125 | 625 ... 1250 | 3VA1112-3FF46-0AA0 |
| | 160 | 112 ... 160 | 800 ... 1600 | 3VA1116-3FF46-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 100 | 70 ... 100 | 500 ... 1000 | 3VA1110-3FF42-0AA0 |
| | 125 | 88 ... 125 | 625 ... 1250 | 3VA1112-3FF42-0AA0 |
| | 160 | 112 ... 160 | 800 ... 1600 | 3VA1116-3FF42-0AA0 |
| 3VA12 | 160 | 112 ... 160 | 800 ... 1600 | -- |
| | 200 | 140 ... 200 | 1000 ... 2000 | -- |
| | 250 | 175 ... 250 | 1250 ... 2500 | -- |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/4 and 1/5 | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 | DT | $I_{cu}$ up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 |
|---|---|---|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. Basic price per PU | | Article No. www.siemens.com/product?Article No. Basic price per PU | | Article No. www.siemens.com/product?Article No. Basic price per PU |
| A | | | | | | |
| ***Line protection, TM240 ATAM, without neutral conductor protection*** With adjustable overload protection $I_r$ and adjustable short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | | |
| 16 | | 3VA1196-4EF46-0AA0 | | 3VA1196-5EF46-0AA0 | | 3VA1196-6EF46-0AA0 |
| 20 | | 3VA1120-4EF46-0AA0 | | 3VA1120-5EF46-0AA0 | | 3VA1120-6EF46-0AA0 |
| 25 | | 3VA1125-4EF46-0AA0 | | 3VA1125-5EF46-0AA0 | | 3VA1125-6EF46-0AA0 |
| 32 | | 3VA1132-4EF46-0AA0 | | 3VA1132-5EF46-0AA0 | | 3VA1132-6EF46-0AA0 |
| 40 | | 3VA1140-4EF46-0AA0 | | 3VA1140-5EF46-0AA0 | | 3VA1140-6EF46-0AA0 |
| 50 | | 3VA1150-4EF46-0AA0 | | 3VA1150-5EF46-0AA0 | | 3VA1150-6EF46-0AA0 |
| 63 | | 3VA1163-4EF46-0AA0 | | 3VA1163-5EF46-0AA0 | | 3VA1163-6EF46-0AA0 |
| 80 | | 3VA1180-4EF46-0AA0 | | 3VA1180-5EF46-0AA0 | | 3VA1180-6EF46-0AA0 |
| 100 | | 3VA1110-4EF46-0AA0 | | 3VA1110-5EF46-0AA0 | | 3VA1110-6EF46-0AA0 |
| 125 | | 3VA1112-4EF46-0AA0 | | 3VA1112-5EF46-0AA0 | | 3VA1112-6EF46-0AA0 |
| 160 | | 3VA1116-4EF46-0AA0 | | 3VA1116-5EF46-0AA0 | | 3VA1116-6EF46-0AA0 |
| | | **Connection with lug terminal** | | | | |
| 16 | | 3VA1196-4EF42-0AA0 | | 3VA1196-5EF42-0AA0 | | 3VA1196-6EF42-0AA0 |
| 20 | | 3VA1120-4EF42-0AA0 | | 3VA1120-5EF42-0AA0 | | 3VA1120-6EF42-0AA0 |
| 25 | | 3VA1125-4EF42-0AA0 | | 3VA1125-5EF42-0AA0 | | 3VA1125-6EF42-0AA0 |
| 32 | | 3VA1132-4EF42-0AA0 | | 3VA1132-5EF42-0AA0 | | 3VA1132-6EF42-0AA0 |
| 40 | | 3VA1140-4EF42-0AA0 | | 3VA1140-5EF42-0AA0 | | 3VA1140-6EF42-0AA0 |
| 50 | | 3VA1150-4EF42-0AA0 | | 3VA1150-5EF42-0AA0 | | 3VA1150-6EF42-0AA0 |
| 63 | | 3VA1163-4EF42-0AA0 | | 3VA1163-5EF42-0AA0 | | 3VA1163-6EF42-0AA0 |
| 80 | | 3VA1180-4EF42-0AA0 | | 3VA1180-5EF42-0AA0 | | 3VA1180-6EF42-0AA0 |
| 100 | | 3VA1110-4EF42-0AA0 | | 3VA1110-5EF42-0AA0 | | 3VA1110-6EF42-0AA0 |
| 125 | | 3VA1112-4EF42-0AA0 | | 3VA1112-5EF42-0AA0 | | 3VA1112-6EF42-0AA0 |
| 160 | | 3VA1116-4EF42-0AA0 | | 3VA1116-5EF42-0AA0 | | 3VA1116-6EF42-0AA0 |
| 160 | | 3VA1216-4EF42-0AA0 | | 3VA1216-5EF42-0AA0 | | 3VA1216-6EF42-0AA0 |
| 200 | | 3VA1220-4EF42-0AA0 | | 3VA1220-5EF42-0AA0 | | 3VA1220-6EF42-0AA0 |
| 250 | | 3VA1225-4EF42-0AA0 | | 3VA1225-5EF42-0AA0 | | 3VA1225-6EF42-0AA0 |
| ***Line protection, TM240 ATAM, 50 % neutral conductor protection*** With adjustable overload protection $I_r$ and adjustable short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | | |
| 100 | | 3VA1110-4FF46-0AA0 | | 3VA1110-5FF46-0AA0 | | 3VA1110-6FF46-0AA0 |
| 125 | | 3VA1112-4FF46-0AA0 | | 3VA1112-5FF46-0AA0 | | 3VA1112-6FF46-0AA0 |
| 160 | | 3VA1116-4FF46-0AA0 | | 3VA1116-5FF46-0AA0 | | 3VA1116-6FF46-0AA0 |
| | | **Connection with lug terminal** | | | | |
| 100 | | 3VA1110-4FF42-0AA0 | | 3VA1110-5FF42-0AA0 | | 3VA1110-6FF42-0AA0 |
| 125 | | 3VA1112-4FF42-0AA0 | | 3VA1112-5FF42-0AA0 | | 3VA1112-6FF42-0AA0 |
| 160 | | 3VA1116-4FF42-0AA0 | | 3VA1116-5FF42-0AA0 | | 3VA1116-6FF42-0AA0 |
| 160 | | 3VA1216-4FF42-0AA0 | | 3VA1216-5FF42-0AA0 | | 3VA1216-6FF42-0AA0 |
| 200 | | 3VA1220-4FF42-0AA0 | | 3VA1220-5FF42-0AA0 | | 3VA1220-6FF42-0AA0 |
| 250 | | 3VA1225-4FF42-0AA0 | | 3VA1225-5FF42-0AA0 | | 3VA1225-6FF42-0AA0 |



* You can order this quantity or a multiple thereof.

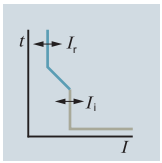
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

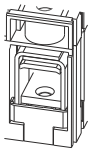
| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instantaneous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| | | A | A | A | | | |

### 4-pole, fixed-mounted, 3VA11/3VA12, up to 250 A
### Thermal-magnetic trip unit

I201_19035

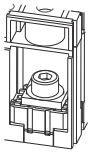



***Line protection, TM240 ATAM, 100 % neutral conductor protection***
With adjustable overload protection $I_r$ and adjustable short-circuit protection $I_i$



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 160 ... 320 | 3VA1196-3GF46-0AA0 |
| | 20 | 14 ... 20 | 160 ... 320 | 3VA1120-3GF46-0AA0 |
| | 25 | 18 ... 25 | 160 ... 320 | 3VA1125-3GF46-0AA0 |
| | 32 | 16 ... 32 | 160 ... 320 | 3VA1132-3GF46-0AA0 |
| | 40 | 28 ... 40 | 200 ... 400 | 3VA1140-3GF46-0AA0 |
| | 50 | 35 ... 50 | 250 ... 500 | 3VA1150-3GF46-0AA0 |
| | 63 | 44 ... 63 | 315 ... 630 | 3VA1163-3GF46-0AA0 |
| | 80 | 56 ... 80 | 400 ... 800 | 3VA1180-3GF46-0AA0 |
| | 100 | 70 ... 100 | 500 ... 1000 | 3VA1110-3GF46-0AA0 |
| | 125 | 88 ... 125 | 625 ... 1250 | 3VA1112-3GF46-0AA0 |
| | 160 | 112 ... 160 | 800 ... 1600 | 3VA1116-3GF46-0AA0 |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA11 | 16 | 11 ... 16 | 160 ... 320 | 3VA1196-3GF42-0AA0 |
| | 20 | 14 ... 20 | 160 ... 320 | 3VA1120-3GF42-0AA0 |
| | 25 | 18 ... 25 | 160 ... 320 | 3VA1125-3GF42-0AA0 |
| | 32 | 16 ... 32 | 160 ... 320 | 3VA1132-3GF42-0AA0 |
| | 40 | 28 ... 40 | 200 ... 400 | 3VA1140-3GF42-0AA0 |
| | 50 | 35 ... 50 | 250 ... 500 | 3VA1150-3GF42-0AA0 |
| | 63 | 44 ... 63 | 315 ... 630 | 3VA1163-3GF42-0AA0 |
| | 80 | 56 ... 80 | 400 ... 800 | 3VA1180-3GF42-0AA0 |
| | 100 | 70 ... 100 | 500 ... 1000 | 3VA1110-3GF42-0AA0 |
| | 125 | 88 ... 125 | 625 ... 1250 | 3VA1112-3GF42-0AA0 |
| | 160 | 112 ... 160 | 800 ... 1600 | 3VA1116-3GF42-0AA0 |
| 3VA12 | 160 | 112 ... 160 | 800 ... 1600 | -- |
| | 200 | 140 ... 200 | 1000 ... 2000 | -- |
| | 250 | 175 ... 250 | 1250 ... 2500 | -- |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/4 and 1/5 | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 | DT | $I_{cu}$ up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 |
|---|---|---|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. Basic price per PU | | Article No. www.siemens.com/product?Article No. Basic price per PU | | Article No. www.siemens.com/product?Article No. Basic price per PU |
| A | | | | | | |

***Line protection, TM240 ATAM, 100 % neutral conductor protection***
With adjustable overload protection $I_r$ and adjustable short-circuit protection $I_i$

| | | | | | | |
|---|---|---|---|---|---|---|
| | | **Connection with box terminal** | | | | |
| 16 | | 3VA1196-4GF46-0AA0 | | 3VA1196-5GF46-0AA0 | | 3VA1196-6GF46-0AA0 |
| 20 | | 3VA1120-4GF46-0AA0 | | 3VA1120-5GF46-0AA0 | | 3VA1120-6GF46-0AA0 |
| 25 | | 3VA1125-4GF46-0AA0 | | 3VA1125-5GF46-0AA0 | | 3VA1125-6GF46-0AA0 |
| 32 | | 3VA1132-4GF46-0AA0 | | 3VA1132-5GF46-0AA0 | | 3VA1132-6GF46-0AA0 |
| 40 | | 3VA1140-4GF46-0AA0 | | 3VA1140-5GF46-0AA0 | | 3VA1140-6GF46-0AA0 |
| 50 | | 3VA1150-4GF46-0AA0 | | 3VA1150-5GF46-0AA0 | | 3VA1150-6GF46-0AA0 |
| 63 | | 3VA1163-4GF46-0AA0 | | 3VA1163-5GF46-0AA0 | | 3VA1163-6GF46-0AA0 |
| 80 | | 3VA1180-4GF46-0AA0 | | 3VA1180-5GF46-0AA0 | | 3VA1180-6GF46-0AA0 |
| 100 | | 3VA1110-4GF46-0AA0 | | 3VA1110-5GF46-0AA0 | | 3VA1110-6GF46-0AA0 |
| 125 | | 3VA1112-4GF46-0AA0 | | 3VA1112-5GF46-0AA0 | | 3VA1112-6GF46-0AA0 |
| 160 | | 3VA1116-4GF46-0AA0 | | 3VA1116-5GF46-0AA0 | | 3VA1116-6GF46-0AA0 |
| | | **Connection with lug terminal** | | | | |
| 16 | | 3VA1196-4GF42-0AA0 | | 3VA1196-5GF42-0AA0 | | 3VA1196-6GF42-0AA0 |
| 20 | | 3VA1120-4GF42-0AA0 | | 3VA1120-5GF42-0AA0 | | 3VA1120-6GF42-0AA0 |
| 25 | | 3VA1125-4GF42-0AA0 | | 3VA1125-5GF42-0AA0 | | 3VA1125-6GF42-0AA0 |
| 32 | | 3VA1132-4GF42-0AA0 | | 3VA1132-5GF42-0AA0 | | 3VA1132-6GF42-0AA0 |
| 40 | | 3VA1140-4GF42-0AA0 | | 3VA1140-5GF42-0AA0 | | 3VA1140-6GF42-0AA0 |
| 50 | | 3VA1150-4GF42-0AA0 | | 3VA1150-5GF42-0AA0 | | 3VA1150-6GF42-0AA0 |
| 63 | | 3VA1163-4GF42-0AA0 | | 3VA1163-5GF42-0AA0 | | 3VA1163-6GF42-0AA0 |
| 80 | | 3VA1180-4GF42-0AA0 | | 3VA1180-5GF42-0AA0 | | 3VA1180-6GF42-0AA0 |
| 100 | | 3VA1110-4GF42-0AA0 | | 3VA1110-5GF42-0AA0 | | 3VA1110-6GF42-0AA0 |
| 125 | | 3VA1112-4GF42-0AA0 | | 3VA1112-5GF42-0AA0 | | 3VA1112-6GF42-0AA0 |
| 160 | | 3VA1116-4GF42-0AA0 | | 3VA1116-5GF42-0AA0 | | 3VA1116-6GF42-0AA0 |
| 160 | | 3VA1216-4GF42-0AA0 | | 3VA1216-5GF42-0AA0 | | 3VA1216-6GF42-0AA0 |
| 200 | | 3VA1220-4GF42-0AA0 | | 3VA1220-5GF42-0AA0 | | 3VA1220-6GF42-0AA0 |
| 250 | | 3VA1225-4GF42-0AA0 | | 3VA1225-5GF42-0AA0 | | 3VA1225-6GF42-0AA0 |



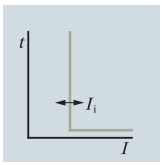
* You can order this quantity or a multiple thereof.

### Starter protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

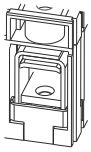
| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | | |

**3-pole, fixed-mounted, 3VA11/3VA12, up to 200 A**
**Magnetic trip unit**

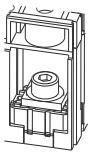

***Starter protection, TM120M AM***
With adjustable short-circuit protection $I_i$

**Connection with box terminal**



| | | | | |
|---|---|---|---|---|
| 3VA11 | 32 | -- | 220 ... 510 | 3VA1132-5MH36-0AA0 |
| | 40 | -- | 280 ... 640 | 3VA1140-5MH36-0AA0 |
| | 50 | -- | 350 ... 800 | 3VA1150-5MH36-0AA0 |
| | 63 | -- | 440 ... 1010 | 3VA1163-5MH36-0AA0 |
| | 80 | -- | 560 ... 1280 | 3VA1180-5MH36-0AA0 |
| | 100 | -- | 700 ... 1600 | 3VA1110-5MH36-0AA0 |
| | 125 | -- | 875 ... 2000 | 3VA1112-5MH36-0AA0 |

**Connection with lug terminal**



| | | | | |
|---|---|---|---|---|
| 3VA11 | 32 | -- | 220 ... 510 | 3VA1132-5MH32-0AA0 |
| | 40 | -- | 280 ... 640 | 3VA1140-5MH32-0AA0 |
| | 50 | -- | 350 ... 800 | 3VA1150-5MH32-0AA0 |
| | 63 | -- | 440 ... 1010 | 3VA1163-5MH32-0AA0 |
| | 80 | -- | 560 ... 1280 | 3VA1180-5MH32-0AA0 |
| | 100 | -- | 700 ... 1600 | 3VA1110-5MH32-0AA0 |
| | 125 | -- | 875 ... 2000 | 3VA1112-5MH32-0AA0 |
| 3VA12 | 160 | -- | 1120 ... 2560 | 3VA1216-5MH32-0AA0 |
| | 200 | -- | 1200 ... 2800 | 3VA1220-5MH32-0AA0 |



*** You can order this quantity or a multiple thereof.**

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 |
|---|---|---|
| | | Article No. www.siemens.com/product?Article No. — Basic price per PU |
| A | | |



***Starter protection, TM120M AM***
With adjustable short-circuit protection $I_i$

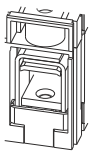
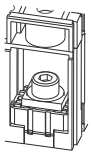
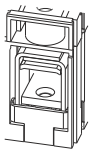
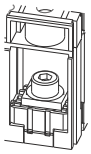
| | |
|---|---|
| | **Connection with box terminal** |
| 32 | 3VA1132-6MH36-0AA0 |
| 40 | 3VA1140-6MH36-0AA0 |
| 50 | 3VA1150-6MH36-0AA0 |
| 63 | 3VA1163-6MH36-0AA0 |
| 80 | 3VA1180-6MH36-0AA0 |
| 100 | 3VA1110-6MH36-0AA0 |
| 125 | 3VA1112-6MH36-0AA0 |
| | **Connection with lug terminal** |
| 32 | 3VA1132-6MH32-0AA0 |
| 40 | 3VA1140-6MH32-0AA0 |
| 50 | 3VA1150-6MH32-0AA0 |
| 63 | 3VA1163-6MH32-0AA0 |
| 80 | 3VA1180-6MH32-0AA0 |
| 100 | 3VA1110-6MH32-0AA0 |
| 125 | 3VA1112-6MH32-0AA0 |
| 160 | 3VA1216-6MH32-0AA0 |
| 200 | 3VA1220-6MH32-0AA0 |

*** You can order this quantity or a multiple thereof.**

2

## Selection and ordering data

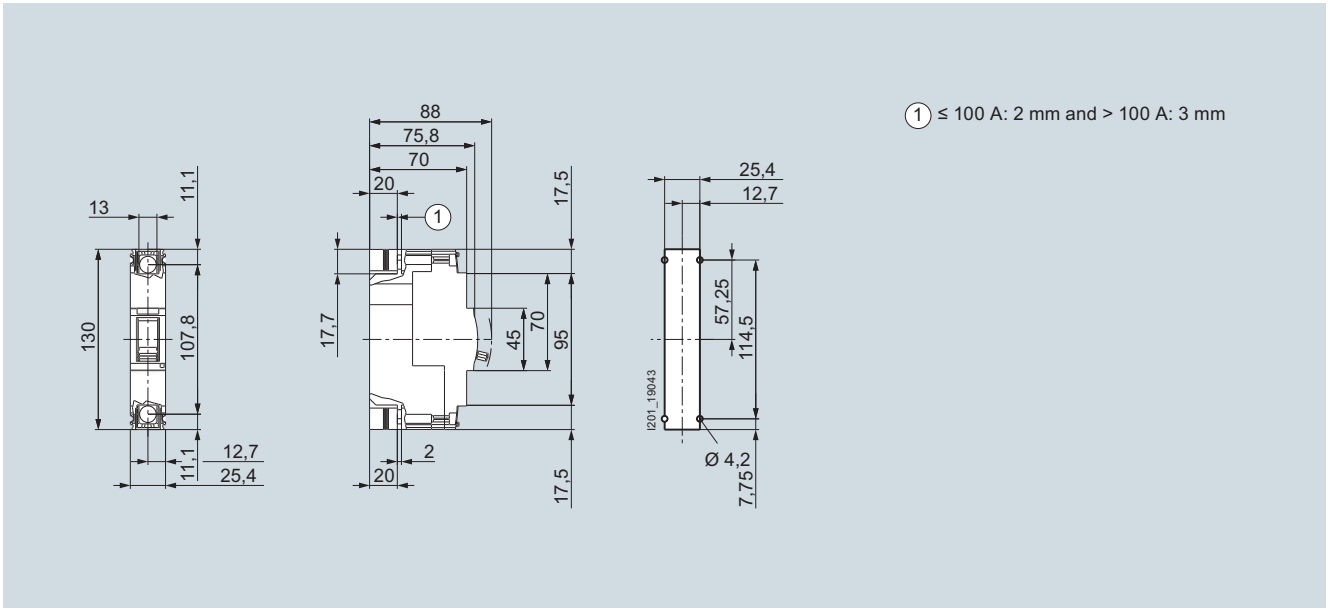
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated uninterrupted current $I_u$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | | |
| **3-pole, fixed-mounted, 3VA11/3VA12, up to 250 A Without trip unit** | | | | | | | |
| ***Switch disconnector without SD100 trip unit*** | | | | | | | |
|  **Connection with box terminal** | 3VA11 | 63 | -- | -- | | **3VA1163-1AA36-0AA0** | |
| | | 100 | -- | -- | | **3VA1110-1AA36-0AA0** | |
| | | 125 | -- | -- | | **3VA1112-1AA36-0AA0** | |
| | | 160 | -- | -- | | **3VA1116-1AA36-0AA0** | |
|  **Connection with lug terminal** | 3VA11 | 63 | -- | -- | | **3VA1163-1AA32-0AA0** | |
| | | 100 | -- | -- | | **3VA1110-1AA32-0AA0** | |
| | | 125 | -- | -- | | **3VA1112-1AA32-0AA0** | |
| | | 160 | -- | -- | | **3VA1116-1AA32-0AA0** | |
| | 3VA12 | 250 | -- | -- | | **3VA1225-1AA32-0AA0** | |
| **4-pole, fixed-mounted, 3VA11/3VA12, up to 250 A Without trip unit** | | | | | | | |
| ***Switch disconnector without SD100 trip unit*** | | | | | | | |
|  **Connection with box terminal** | 3VA11 | 63 | -- | -- | | **3VA1163-1AA46-0AA0** | |
| | | 100 | -- | -- | | **3VA1110-1AA46-0AA0** | |
| | | 125 | -- | -- | | **3VA1112-1AA46-0AA0** | |
| | | 160 | -- | -- | | **3VA1116-1AA46-0AA0** | |
|  **Connection with lug terminal** | 3VA11 | 63 | -- | -- | | **3VA1163-1AA42-0AA0** | |
| | | 100 | -- | -- | | **3VA1110-1AA42-0AA0** | |
| | | 125 | -- | -- | | **3VA1112-1AA42-0AA0** | |
| | | 160 | -- | -- | | **3VA1116-1AA42-0AA0** | |
| | 3VA12 | 250 | -- | -- | | **3VA1225-1AA42-0AA0** | |

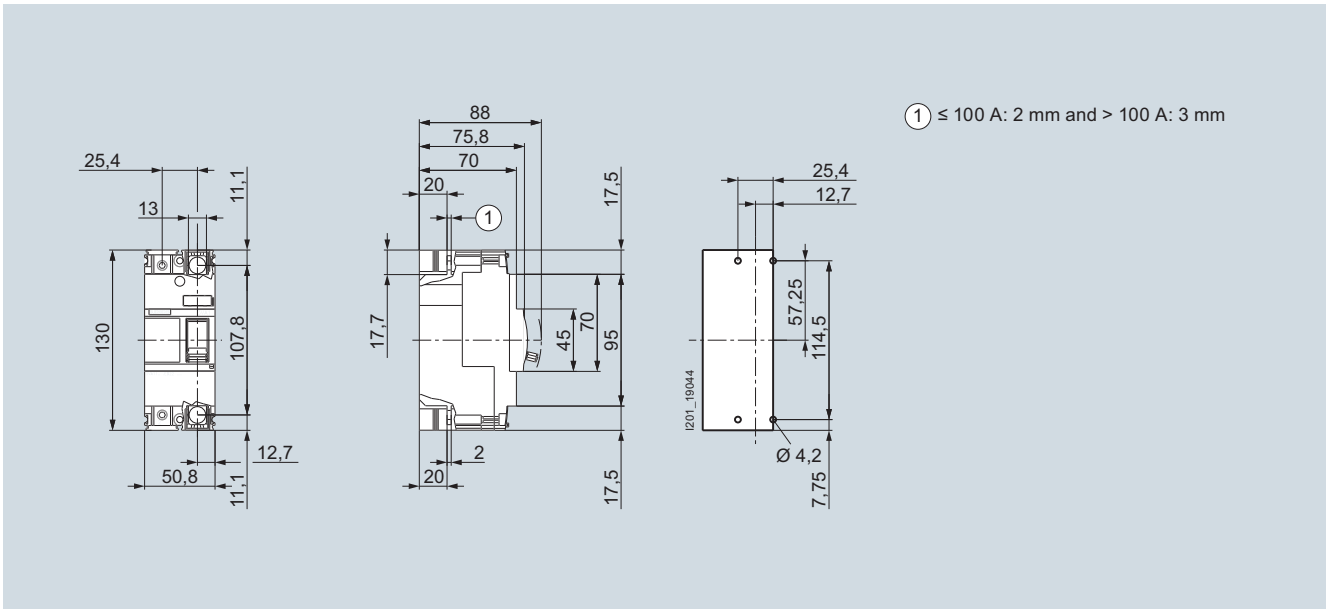


*** You can order this quantity or a multiple thereof.**

## Overview

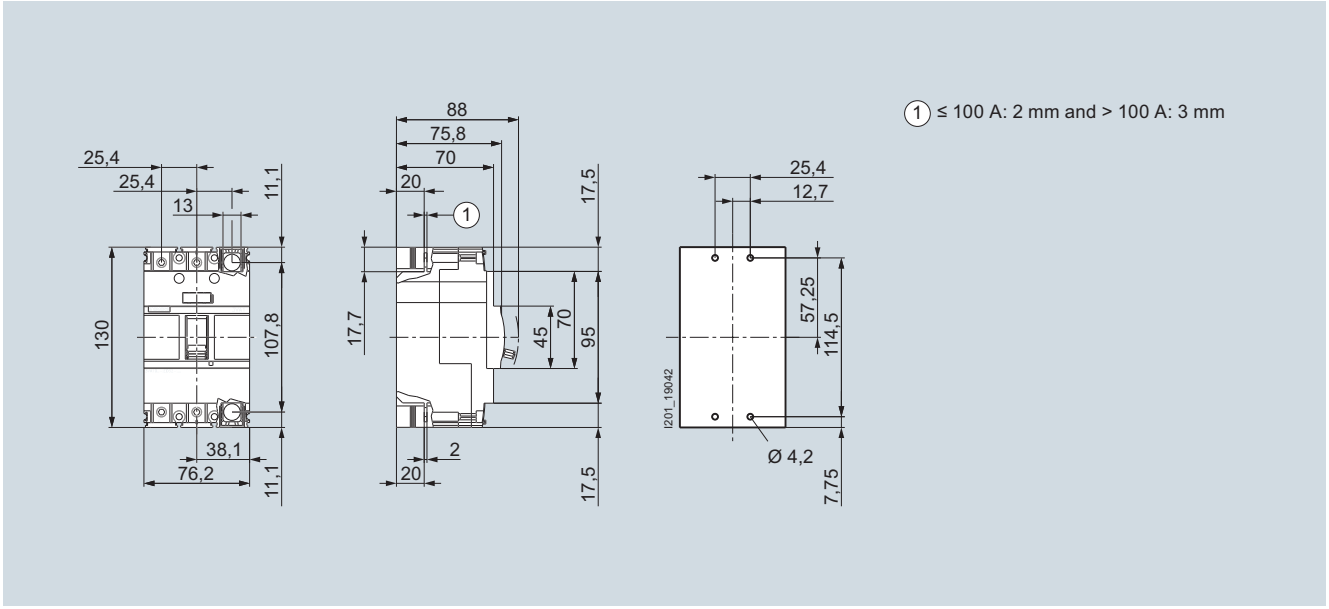



3VA11, 1-pole

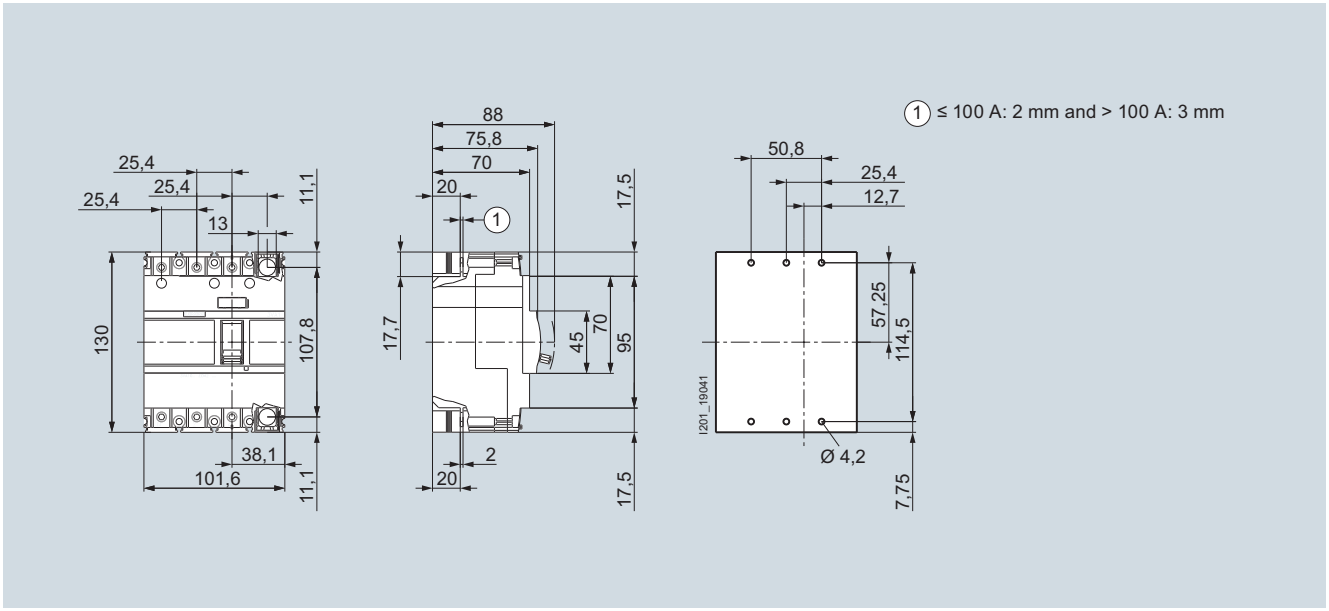



3VA11, 2-pole

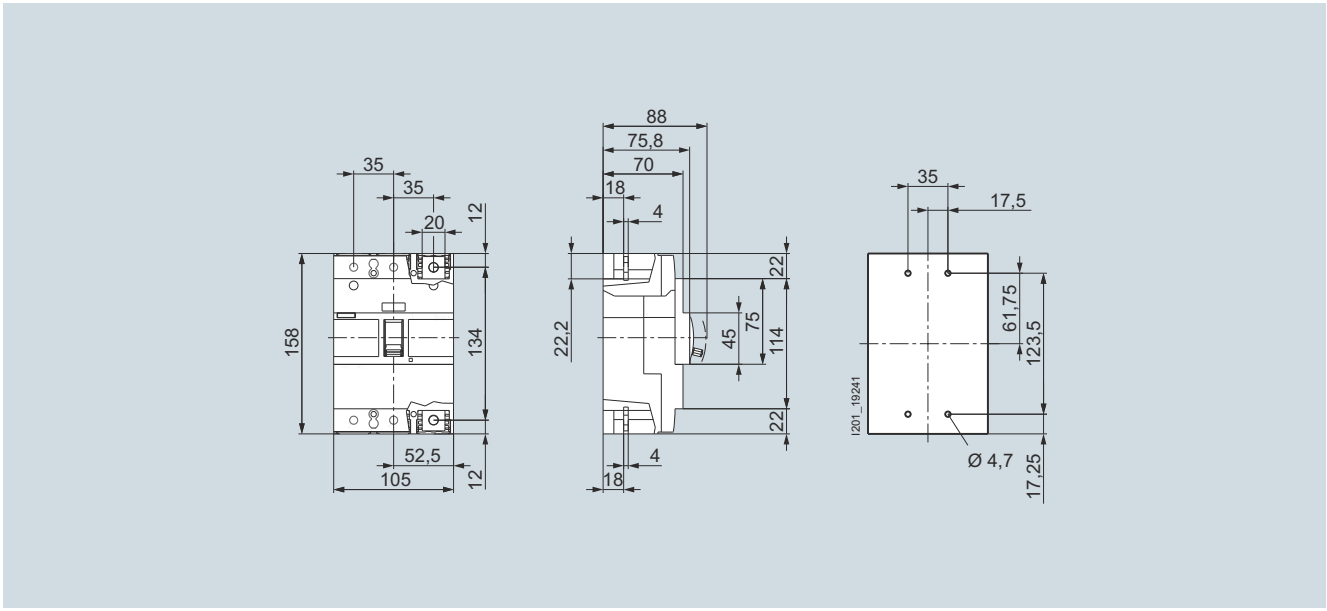
## Dimensional drawings



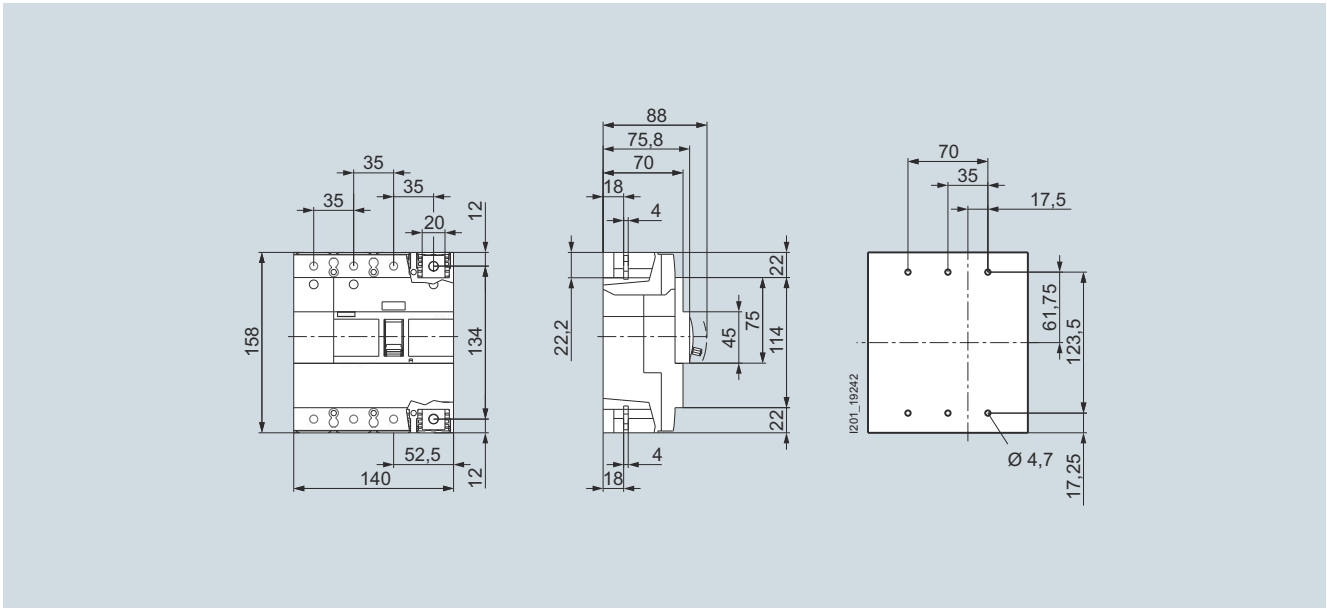

3VA10 and 3VA11, 3-pole




3VA10 and 3VA11, 4-pole




3VA12, 3-pole




3VA12, 4-pole

Further dimensional drawings can be found in the image database at: www.siemens.com/lowvoltage/picturedb

## Notes






**NEW**

Direct reference to the products in the Industry Mall from the selection and ordering data tables:

Article No.
www.siemens.com/product?Article No.
3KD2832-0NE10-0

Paper catalog:
To get more product information enter the Web address plus Article No.

PDF catalog:
Get more product information with just a mouse click.

**For further technical product information:**

Siemens Industry Online Support:
www.siemens.com/lowvoltage/product-support

→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

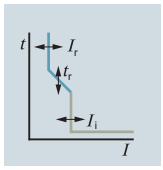
## Selection and ordering data

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | | |

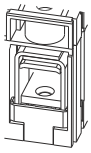
### 3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A Electronic trip unit


I201_18857



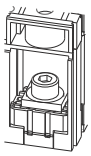

***Line protection, ETU320 LI***

With adjustable overload protection $I_r$ and adjustable instantaneous short-circuit protection $I_i$



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | -- | 38 ... 300 | 3VA2025-5HL36-0AA0 |
| | 40 | 16 ... 40 | -- | 60 ... 480 | 3VA2040-5HL36-0AA0 |
| | 63 | 25 ... 63 | -- | 95 ... 756 | 3VA2063-5HL36-0AA0 |
| | 100 | 40 ... 100 | -- | 150 ... 1200 | 3VA2010-5HL36-0AA0 |
| 3VA21 | 25 | 10 ... 25 | -- | 38 ... 300 | 3VA2125-5HL36-0AA0 |
| | 40 | 16 ... 40 | -- | 60 ... 480 | 3VA2140-5HL36-0AA0 |
| | 63 | 25 ... 63 | -- | 95 ... 756 | 3VA2163-5HL36-0AA0 |
| | 100 | 40 ... 100 | -- | 150 ... 1200 | 3VA2110-5HL36-0AA0 |
| | 160 | 63 ... 160 | -- | 240 ... 1600 | 3VA2116-5HL36-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | -- | 38 ... 300 | 3VA2025-5HL32-0AA0 |
| | 40 | 16 ... 40 | -- | 60 ... 480 | 3VA2040-5HL32-0AA0 |
| | 63 | 25 ... 63 | -- | 95 ... 756 | 3VA2063-5HL32-0AA0 |
| | 100 | 40 ... 100 | -- | 150 ... 1200 | 3VA2010-5HL32-0AA0 |
| 3VA21 | 25 | 10 ... 25 | -- | 38 ... 300 | 3VA2125-5HL32-0AA0 |
| | 40 | 16 ... 40 | -- | 60 ... 480 | 3VA2140-5HL32-0AA0 |
| | 63 | 25 ... 63 | -- | 95 ... 756 | 3VA2163-5HL32-0AA0 |
| | 100 | 40 ... 100 | -- | 150 ... 1200 | 3VA2110-5HL32-0AA0 |
| | 160 | 63 ... 160 | -- | 240 ... 1600 | 3VA2116-5HL32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | -- | 240 ... 1920 | 3VA2216-5HL32-0AA0 |
| | 250 | 100 ... 250 | -- | 375 ... 2500 | 3VA2225-5HL32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | -- | 375 ... 3000 | 3VA2325-5HL32-0AA0 |
| | 400 | 160 ... 400 | -- | 600 ... 4000 | 3VA2340-5HL32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | -- | 600 ... 4800[1)] | 3VA2440-5HL32-0AA0 |
| | 630 | 250 ... 630 | -- | 945 ... 5670 | 3VA2463-5HL32-0AA0 |

1) At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |

***Line protection, ETU320 LI***
With adjustable overload protection $I_r$ and adjustable instantaneous short-circuit protection $I_i$

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6HL36-0AA0 | | | 3VA2025-7HL36-0AA0 | | | 3VA2025-8HL36-0AA0 | |
| 40 | | 3VA2040-6HL36-0AA0 | | | 3VA2040-7HL36-0AA0 | | | 3VA2040-8HL36-0AA0 | |
| 63 | | 3VA2063-6HL36-0AA0 | | | 3VA2063-7HL36-0AA0 | | | 3VA2063-8HL36-0AA0 | |
| 100 | | 3VA2010-6HL36-0AA0 | | | 3VA2010-7HL36-0AA0 | | | 3VA2010-8HL36-0AA0 | |
| 25 | | 3VA2125-6HL36-0AA0 | | | 3VA2125-7HL36-0AA0 | | | 3VA2125-8HL36-0AA0 | |
| 40 | | 3VA2140-6HL36-0AA0 | | | 3VA2140-7HL36-0AA0 | | | 3VA2140-8HL36-0AA0 | |
| 63 | | 3VA2163-6HL36-0AA0 | | | 3VA2163-7HL36-0AA0 | | | 3VA2163-8HL36-0AA0 | |
| 100 | | 3VA2110-6HL36-0AA0 | | | 3VA2110-7HL36-0AA0 | | | 3VA2110-8HL36-0AA0 | |
| 160 | | 3VA2116-6HL36-0AA0 | | | 3VA2116-7HL36-0AA0 | | | 3VA2116-8HL36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6HL32-0AA0 | | | 3VA2025-7HL32-0AA0 | | | 3VA2025-8HL32-0AA0 | |
| 40 | | 3VA2040-6HL32-0AA0 | | | 3VA2040-7HL32-0AA0 | | | 3VA2040-8HL32-0AA0 | |
| 63 | | 3VA2063-6HL32-0AA0 | | | 3VA2063-7HL32-0AA0 | | | 3VA2063-8HL32-0AA0 | |
| 100 | | 3VA2010-6HL32-0AA0 | | | 3VA2010-7HL32-0AA0 | | | 3VA2010-8HL32-0AA0 | |
| 25 | | 3VA2125-6HL32-0AA0 | | | 3VA2125-7HL32-0AA0 | | | 3VA2125-8HL32-0AA0 | |
| 40 | | 3VA2140-6HL32-0AA0 | | | 3VA2140-7HL32-0AA0 | | | 3VA2140-8HL32-0AA0 | |
| 63 | | 3VA2163-6HL32-0AA0 | | | 3VA2163-7HL32-0AA0 | | | 3VA2163-8HL32-0AA0 | |
| 100 | | 3VA2110-6HL32-0AA0 | | | 3VA2110-7HL32-0AA0 | | | 3VA2110-8HL32-0AA0 | |
| 160 | | 3VA2116-6HL32-0AA0 | | | 3VA2116-7HL32-0AA0 | | | 3VA2116-8HL32-0AA0 | |
| 160 | | 3VA2216-6HL32-0AA0 | | | 3VA2216-7HL32-0AA0 | | | 3VA2216-8HL32-0AA0 | |
| 250 | | 3VA2225-6HL32-0AA0 | | | 3VA2225-7HL32-0AA0 | | | 3VA2225-8HL32-0AA0 | |
| 250 | | 3VA2325-6HL32-0AA0 | | | 3VA2325-7HL32-0AA0 | | | 3VA2325-8HL32-0AA0 | |
| 400 | | 3VA2340-6HL32-0AA0 | | | 3VA2340-7HL32-0AA0 | | | 3VA2340-8HL32-0AA0 | |
| 400 | | 3VA2440-6HL32-0AA0 | | | 3VA2440-7HL32-0AA0 | | | 3VA2440-8HL32-0AA0 | |
| 630 | | 3VA2463-6HL32-0AA0 | | | 3VA2463-7HL32-0AA0 | | | 3VA2463-8HL32-0AA0 | |

3

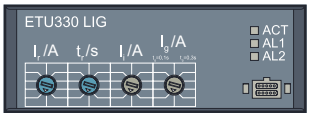
* You can order this quantity or a multiple thereof.

## Line protection

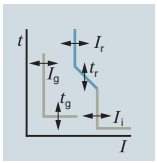
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instantaneous short-circuit protection "I" $I_i$ | Ground-fault protection G $I_g$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| | | A | A | A | A | | | |

### 3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
### Electronic trip unit

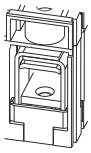



I201_18426



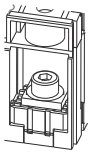

***Line protection, ETU330 LIG***

With adjustable overload protection $I_n$, adjustable instantaneous short-circuit protection $I_i$ and adjustable ground-fault protection $I_g$



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 38 ... 300 | 15 ... 25 | 3VA2025-5HM36-0AA0 |
| | 40 | 16 ... 40 | 60 ... 480 | 16 ... 40 | 3VA2040-5HM36-0AA0 |
| | 63 | 25 ... 63 | 95 ... 756 | 16 ... 63 | 3VA2063-5HM36-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1200 | 20 ... 100 | 3VA2010-5HM36-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 38 ... 300 | 15 ... 25 | 3VA2125-5HM36-0AA0 |
| | 40 | 16 ... 40 | 60 ... 480 | 16 ... 40 | 3VA2140-5HM36-0AA0 |
| | 63 | 25 ... 63 | 95 ... 756 | 16 ... 63 | 3VA2163-5HM36-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1200 | 20 ... 100 | 3VA2110-5HM36-0AA0 |
| | 160 | 63 ... 160 | 240 ... 1600 | 32 ... 160 | 3VA2116-5HM36-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 38 ... 300 | 15 ... 25 | 3VA2025-5HM32-0AA0 |
| | 40 | 16 ... 40 | 60 ... 480 | 16 ... 40 | 3VA2040-5HM32-0AA0 |
| | 63 | 25 ... 63 | 95 ... 756 | 16 ... 63 | 3VA2063-5HM32-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1200 | 20 ... 100 | 3VA2010-5HM32-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 38 ... 300 | 15 ... 25 | 3VA2125-5HM32-0AA0 |
| | 40 | 16 ... 40 | 60 ... 480 | 16 ... 40 | 3VA2140-5HM32-0AA0 |
| | 63 | 25 ... 63 | 95 ... 756 | 16 ... 63 | 3VA2163-5HM32-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1200 | 20 ... 100 | 3VA2110-5HM32-0AA0 |
| | 160 | 63 ... 160 | 240 ... 1600 | 32 ... 160 | 3VA2116-5HM32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 240 ... 1920 | 32 ... 160 | 3VA2216-5HM32-0AA0 |
| | 250 | 100 ... 250 | 375 ... 2500 | 50 ... 250 | 3VA2225-5HM32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 375 ... 3000 | 50 ... 250 | 3VA2325-5HM32-0AA0 |
| | 400 | 160 ... 400 | 600 ... 4000 | 80 ... 400 | 3VA2340-5HM32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 600 ... 4800[1)] | 80 ... 400 | 3VA2440-5HM32-0AA0 |
| | 630 | 250 ... 630 | 945 ... 5670 | 126 ... 630 | 3VA2463-5HM32-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |

***Line protection, ETU330 LIG***
With adjustable overload protection $I_r$, adjustable instantaneous short-circuit protection $I_i$ and adjustable ground-fault protection $I_g$

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Connection with box terminal** | | | | | | | | |
| 25 | | 3VA2025-6HM36-0AA0 | | | 3VA2025-7HM36-0AA0 | | | 3VA2025-8HM36-0AA0 | |
| 40 | | 3VA2040-6HM36-0AA0 | | | 3VA2040-7HM36-0AA0 | | | 3VA2040-8HM36-0AA0 | |
| 63 | | 3VA2063-6HM36-0AA0 | | | 3VA2063-7HM36-0AA0 | | | 3VA2063-8HM36-0AA0 | |
| 100 | | 3VA2010-6HM36-0AA0 | | | 3VA2010-7HM36-0AA0 | | | 3VA2010-8HM36-0AA0 | |
| 25 | | 3VA2125-6HM36-0AA0 | | | 3VA2125-7HM36-0AA0 | | | 3VA2125-8HM36-0AA0 | |
| 40 | | 3VA2140-6HM36-0AA0 | | | 3VA2140-7HM36-0AA0 | | | 3VA2140-8HM36-0AA0 | |
| 63 | | 3VA2163-6HM36-0AA0 | | | 3VA2163-7HM36-0AA0 | | | 3VA2163-8HM36-0AA0 | |
| 100 | | 3VA2110-6HM36-0AA0 | | | 3VA2110-7HM36-0AA0 | | | 3VA2110-8HM36-0AA0 | |
| 160 | | 3VA2116-6HM36-0AA0 | | | 3VA2116-7HM36-0AA0 | | | 3VA2116-8HM36-0AA0 | |
| | **Connection with lug terminal** | | | | | | | | |
| 25 | | 3VA2025-6HM32-0AA0 | | | 3VA2025-7HM32-0AA0 | | | 3VA2025-8HM32-0AA0 | |
| 40 | | 3VA2040-6HM32-0AA0 | | | 3VA2040-7HM32-0AA0 | | | 3VA2040-8HM32-0AA0 | |
| 63 | | 3VA2063-6HM32-0AA0 | | | 3VA2063-7HM32-0AA0 | | | 3VA2063-8HM32-0AA0 | |
| 100 | | 3VA2010-6HM32-0AA0 | | | 3VA2010-7HM32-0AA0 | | | 3VA2010-8HM32-0AA0 | |
| 25 | | 3VA2125-6HM32-0AA0 | | | 3VA2125-7HM32-0AA0 | | | 3VA2125-8HM32-0AA0 | |
| 40 | | 3VA2140-6HM32-0AA0 | | | 3VA2140-7HM32-0AA0 | | | 3VA2140-8HM32-0AA0 | |
| 63 | | 3VA2163-6HM32-0AA0 | | | 3VA2163-7HM32-0AA0 | | | 3VA2163-8HM32-0AA0 | |
| 100 | | 3VA2110-6HM32-0AA0 | | | 3VA2110-7HM32-0AA0 | | | 3VA2110-8HM32-0AA0 | |
| 160 | | 3VA2116-6HM32-0AA0 | | | 3VA2116-7HM32-0AA0 | | | 3VA2116-8HM32-0AA0 | |
| 160 | | 3VA2216-6HM32-0AA0 | | | 3VA2216-7HM32-0AA0 | | | 3VA2216-8HM32-0AA0 | |
| 250 | | 3VA2225-6HM32-0AA0 | | | 3VA2225-7HM32-0AA0 | | | 3VA2225-8HM32-0AA0 | |
| 250 | | 3VA2325-6HM32-0AA0 | | | 3VA2325-7HM32-0AA0 | | | 3VA2325-8HM32-0AA0 | |
| 400 | | 3VA2340-6HM32-0AA0 | | | 3VA2340-7HM32-0AA0 | | | 3VA2340-8HM32-0AA0 | |
| 400 | | 3VA2440-6HM32-0AA0 | | | 3VA2440-7HM32-0AA0 | | | 3VA2440-8HM32-0AA0 | |
| 630 | | 3VA2463-6HM32-0AA0 | | | 3VA2463-7HM32-0AA0 | | | 3VA2463-8HM32-0AA0 | |

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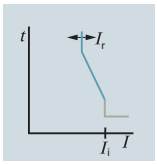
*** You can order this quantity or a multiple thereof.**

### Line protection

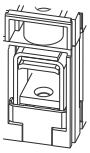
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instantaneous short-circuit protection "I" $I_i$ | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** See "Overview", p. 1/4 and 1/5 (M) | |
|---|---|---|---|---|---|---|---|
| | | A | A | A | | Article No. www.siemens.com/product?Article No. | Basic price per PU |

### 3-pole, fixed-mounted, 3VA21 to 3VA24, up to 630 A
### Electronic trip unit

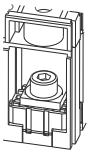




***Line protection, ETU340 ELISA***
With easily adjustable characteristic (characteristic form of a fuse)



**Connection with box terminal**

| | | | | |
|---|---|---|---|---|
| 3VA21 | 25 | 10 ... 25 | 375 | **3VA2125-5HK36-0AA0** |
| | 40 | 16 ... 40 | 600 | **3VA2140-5HK36-0AA0** |
| | 63 | 25 ... 63 | 945 | **3VA2163-5HK36-0AA0** |
| | 100 | 40 ... 100 | 1500 | **3VA2110-5HK36-0AA0** |



**Connection with lug terminal**

| | | | | |
|---|---|---|---|---|
| 3VA21 | 25 | 10 ... 25 | 375 | **3VA2125-5HK32-0AA0** |
| | 40 | 16 ... 40 | 600 | **3VA2140-5HK32-0AA0** |
| | 63 | 25 ... 63 | 945 | **3VA2163-5HK32-0AA0** |
| | 100 | 40 ... 100 | 1500 | **3VA2110-5HK32-0AA0** |
| 3VA22 | 160 | 63 ... 160 | 2400 | **3VA2216-5HK32-0AA0** |
| 3VA23 | 250 | 100 ... 250 | 3750 | **3VA2325-5HK32-0AA0** |
| 3VA24 | 400 | 160 ... 400 | 6000[1] | **3VA2440-5HK32-0AA0** |
| | 500 | 200 ... 500 | 7000 | **3VA2450-5HK32-0AA0** |
| | 630 | 250 ... 630 | 5670 | **3VA2463-5HK32-0AA0** |

[1] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 | | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 | | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. | Basic price per PU | | Article No. www.siemens.com/product?Article No. | Basic price per PU | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| A | | | | | | | | | |
| ***Line protection, ETU340 ELISA*** With easily adjustable characteristic (characteristic form of a fuse) | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2125-6HK36-0AA0 | | | 3VA2125-7HK36-0AA0 | | | 3VA2125-8HK36-0AA0 | |
| 40 | | 3VA2140-6HK36-0AA0 | | | 3VA2140-7HK36-0AA0 | | | 3VA2140-8HK36-0AA0 | |
| 63 | | 3VA2163-6HK36-0AA0 | | | 3VA2163-7HK36-0AA0 | | | 3VA2163-8HK36-0AA0 | |
| 100 | | 3VA2110-6HK36-0AA0 | | | 3VA2110-7HK36-0AA0 | | | 3VA2110-8HK36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2125-6HK32-0AA0 | | | 3VA2125-7HK32-0AA0 | | | 3VA2125-8HK32-0AA0 | |
| 40 | | 3VA2140-6HK32-0AA0 | | | 3VA2140-7HK32-0AA0 | | | 3VA2140-8HK32-0AA0 | |
| 63 | | 3VA2163-6HK32-0AA0 | | | 3VA2163-7HK32-0AA0 | | | 3VA2163-8HK32-0AA0 | |
| 100 | | 3VA2110-6HK32-0AA0 | | | 3VA2110-7HK32-0AA0 | | | 3VA2110-8HK32-0AA0 | |
| 160 | | 3VA2216-6HK32-0AA0 | | | 3VA2216-7HK32-0AA0 | | | 3VA2216-8HK32-0AA0 | |
| 250 | | 3VA2325-6HK32-0AA0 | | | 3VA2325-7HK32-0AA0 | | | 3VA2325-8HK32-0AA0 | |
| 400 | | 3VA2440-6HK32-0AA0 | | | 3VA2440-7HK32-0AA0 | | | 3VA2440-8HK32-0AA0 | |
| 500 | | 3VA2450-6HK32-0AA0 | | | 3VA2450-7HK32-0AA0 | | | 3VA2450-8HK32-0AA0 | |
| 630 | | 3VA2463-6HK32-0AA0 | | | 3VA2463-7HK32-0AA0 | | | 3VA2463-8HK32-0AA0 | |

3

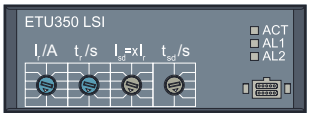
* You can order this quantity or a multiple thereof.

## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instantaneous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | | |

### 3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A Electronic trip unit

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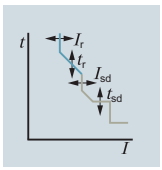
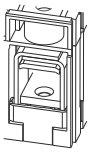
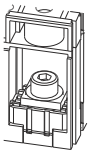



***Line and generator protection, ETU350 LSI***
With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$





| | | | $I_r$ x ... | | |
|---|---|---|---|---|---|
| **Connection with box terminal** | | | | | |
| 3VA20 | 25 | 10 ... 25 | 1.5 ... 10 | 300 | 3VA2025-5HN36-0AA0 |
| | 40 | 16 ... 40 | 1.5 ... 10 | 480 | 3VA2040-5HN36-0AA0 |
| | 63 | 25 ... 63 | 1.5 ... 10 | 756 | 3VA2063-5HN36-0AA0 |
| | 100 | 40 ... 100 | 1.5 ... 10 | 1200 | 3VA2010-5HN36-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 1.5 ... 10 | 300 | 3VA2125-5HN36-0AA0 |
| | 40 | 16 ... 40 | 1.5 ... 10 | 480 | 3VA2140-5HN36-0AA0 |
| | 63 | 25 ... 63 | 1.5 ... 10 | 756 | 3VA2163-5HN36-0AA0 |
| | 100 | 40 ... 100 | 1.5 ... 10 | 1200 | 3VA2110-5HN36-0AA0 |
| | 160 | 63 ... 160 | 1.5 ... 10 | 1600 | 3VA2116-5HN36-0AA0 |
| **Connection with lug terminal** | | | | | |
| 3VA20 | 25 | 10 ... 25 | 1.5 ... 10 | 300 | 3VA2025-5HN32-0AA0 |
| | 40 | 16 ... 40 | 1.5 ... 10 | 480 | 3VA2040-5HN32-0AA0 |
| | 63 | 25 ... 63 | 1.5 ... 10 | 756 | 3VA2063-5HN32-0AA0 |
| | 100 | 40 ... 100 | 1.5 ... 10 | 1200 | 3VA2010-5HN32-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 1.5 ... 10 | 300 | 3VA2125-5HN32-0AA0 |
| | 40 | 16 ... 40 | 1.5 ... 10 | 480 | 3VA2140-5HN32-0AA0 |
| | 63 | 25 ... 63 | 1.5 ... 10 | 756 | 3VA2163-5HN32-0AA0 |
| | 100 | 40 ... 100 | 1.5 ... 10 | 1200 | 3VA2110-5HN32-0AA0 |
| | 160 | 63 ... 160 | 1.5 ... 10 | 1600 | 3VA2116-5HN32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 1.5 ... 10 | 1920 | 3VA2216-5HN32-0AA0 |
| | 250 | 100 ... 250 | 1.5 ... 10 | 2500 | 3VA2225-5HN32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 1.5 ... 10 | 3000 | 3VA2325-5HN32-0AA0 |
| | 400 | 160 ... 400 | 1.5 ... 10 | 4000 | 3VA2340-5HN32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 1.5 ... 10 | 4800[1)] | 3VA2440-5HN32-0AA0 |
| | 630 | 250 ... 630 | 1.5 ... 9 | 5670 | 3VA2463-5HN32-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |

***Line and generator protection, ETU350 LSI***
With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6HN36-0AA0 | | | 3VA2025-7HN36-0AA0 | | | 3VA2025-8HN36-0AA0 | |
| 40 | | 3VA2040-6HN36-0AA0 | | | 3VA2040-7HN36-0AA0 | | | 3VA2040-8HN36-0AA0 | |
| 63 | | 3VA2063-6HN36-0AA0 | | | 3VA2063-7HN36-0AA0 | | | 3VA2063-8HN36-0AA0 | |
| 100 | | 3VA2010-6HN36-0AA0 | | | 3VA2010-7HN36-0AA0 | | | 3VA2010-8HN36-0AA0 | |
| 25 | | 3VA2125-6HN36-0AA0 | | | 3VA2125-7HN36-0AA0 | | | 3VA2125-8HN36-0AA0 | |
| 40 | | 3VA2140-6HN36-0AA0 | | | 3VA2140-7HN36-0AA0 | | | 3VA2140-8HN36-0AA0 | |
| 63 | | 3VA2163-6HN36-0AA0 | | | 3VA2163-7HN36-0AA0 | | | 3VA2163-8HN36-0AA0 | |
| 100 | | 3VA2110-6HN36-0AA0 | | | 3VA2110-7HN36-0AA0 | | | 3VA2110-8HN36-0AA0 | |
| 160 | | 3VA2116-6HN36-0AA0 | | | 3VA2116-7HN36-0AA0 | | | 3VA2116-8HN36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6HN32-0AA0 | | | 3VA2025-7HN32-0AA0 | | | 3VA2025-8HN32-0AA0 | |
| 40 | | 3VA2040-6HN32-0AA0 | | | 3VA2040-7HN32-0AA0 | | | 3VA2040-8HN32-0AA0 | |
| 63 | | 3VA2063-6HN32-0AA0 | | | 3VA2063-7HN32-0AA0 | | | 3VA2063-8HN32-0AA0 | |
| 100 | | 3VA2010-6HN32-0AA0 | | | 3VA2010-7HN32-0AA0 | | | 3VA2010-8HN32-0AA0 | |
| 25 | | 3VA2125-6HN32-0AA0 | | | 3VA2125-7HN32-0AA0 | | | 3VA2125-8HN32-0AA0 | |
| 40 | | 3VA2140-6HN32-0AA0 | | | 3VA2140-7HN32-0AA0 | | | 3VA2140-8HN32-0AA0 | |
| 63 | | 3VA2163-6HN32-0AA0 | | | 3VA2163-7HN32-0AA0 | | | 3VA2163-8HN32-0AA0 | |
| 100 | | 3VA2110-6HN32-0AA0 | | | 3VA2110-7HN32-0AA0 | | | 3VA2110-8HN32-0AA0 | |
| 160 | | 3VA2116-6HN32-0AA0 | | | 3VA2116-7HN32-0AA0 | | | 3VA2116-8HN32-0AA0 | |
| 160 | | 3VA2216-6HN32-0AA0 | | | 3VA2216-7HN32-0AA0 | | | 3VA2216-8HN32-0AA0 | |
| 250 | | 3VA2225-6HN32-0AA0 | | | 3VA2225-7HN32-0AA0 | | | 3VA2225-8HN32-0AA0 | |
| 250 | | 3VA2325-6HN32-0AA0 | | | 3VA2325-7HN32-0AA0 | | | 3VA2325-8HN32-0AA0 | |
| 400 | | 3VA2340-6HN32-0AA0 | | | 3VA2340-7HN32-0AA0 | | | 3VA2340-8HN32-0AA0 | |
| 400 | | 3VA2440-6HN32-0AA0 | | | 3VA2440-7HN32-0AA0 | | | 3VA2440-8HN32-0AA0 | |
| 630 | | 3VA2463-6HN32-0AA0 | | | 3VA2463-7HN32-0AA0 | | | 3VA2463-8HN32-0AA0 | |

3

* You can order this quantity or a multiple thereof.

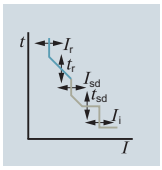
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instantaneous short-circuit protection "I" $I_i$ | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** See "Overview", p. 1/4 and 1/5 (M) | |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | Article No. www.siemens.com/product?Article No. | Basic price per PU |

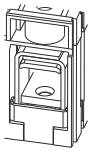
### 3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
### Electronic trip unit


I201_18480



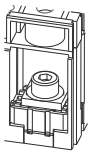

#### *Line and generator protection, with display, ETU550 LSI*

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and adjustable instantaneous short-circuit protection $I_i$



**Connection with box terminal**

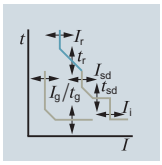
| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5JP36-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5JP36-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5JP36-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5JP36-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5JP36-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5JP36-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5JP36-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5JP36-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5JP36-0AA0 |



**Connection with lug terminal**

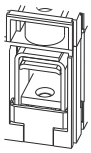
| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5JP32-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5JP32-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5JP32-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5JP32-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5JP32-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5JP32-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5JP32-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5JP32-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5JP32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1920 | 3VA2216-5JP32-0AA0 |
| | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 2500 | 3VA2225-5JP32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 3000 | 3VA2325-5JP32-0AA0 |
| | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 4000 | 3VA2340-5JP32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 6000[1)] | 3VA2440-5JP32-0AA0 |
| | 500 | 200 ... 500 | 300 ... 5000 | 750 ... 7000 | 3VA2450-5JP32-0AA0 |
| | 630 | 250 ... 630 | 378 ... 5670 | 945 ... 5670 | 3VA2463-5JP32-0AA0 |


I201_18481



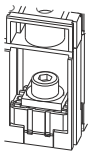

#### *Line and generator protection, with display, ETU560 LSIG*

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$, adjustable instantaneous short-circuit protection $I_i$ and adjustable ground-fault protection $I_g$



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5JQ36-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5JQ36-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5JQ36-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5JQ36-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5JQ36-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5JQ36-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5JQ36-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5JQ36-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5JQ36-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5JQ32-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5JQ32-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5JQ32-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5JQ32-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5JQ32-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5JQ32-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5JQ32-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5JQ32-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5JQ32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1920 | 3VA2216-5JQ32-0AA0 |
| | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 2500 | 3VA2225-5JQ32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 3000 | 3VA2325-5JQ32-0AA0 |
| | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 4000 | 3VA2340-5JQ32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 6000[1)] | 3VA2440-5JQ32-0AA0 |
| | 500 | 200 ... 500 | 300 ... 5000 | 750 ... 7000 | 3VA2450-5JQ32-0AA0 |
| | 630 | 250 ... 630 | 378 ... 5670 | 945 ... 5670 | 3VA2463-5JQ32-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |
| ***Line and generator protection, with display, ETU550 LSI*** With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and adjustable instantaneous short-circuit protection $I_i$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6JP36-0AA0 | | | 3VA2025-7JP36-0AA0 | | | 3VA2025-8JP36-0AA0 | |
| 40 | | 3VA2040-6JP36-0AA0 | | | 3VA2040-7JP36-0AA0 | | | 3VA2040-8JP36-0AA0 | |
| 63 | | 3VA2063-6JP36-0AA0 | | | 3VA2063-7JP36-0AA0 | | | 3VA2063-8JP36-0AA0 | |
| 100 | | 3VA2010-6JP36-0AA0 | | | 3VA2010-7JP36-0AA0 | | | 3VA2010-8JP36-0AA0 | |
| 25 | | 3VA2125-6JP36-0AA0 | | | 3VA2125-7JP36-0AA0 | | | 3VA2125-8JP36-0AA0 | |
| 40 | | 3VA2140-6JP36-0AA0 | | | 3VA2140-7JP36-0AA0 | | | 3VA2140-8JP36-0AA0 | |
| 63 | | 3VA2163-6JP36-0AA0 | | | 3VA2163-7JP36-0AA0 | | | 3VA2163-8JP36-0AA0 | |
| 100 | | 3VA2110-6JP36-0AA0 | | | 3VA2110-7JP36-0AA0 | | | 3VA2110-8JP36-0AA0 | |
| 160 | | 3VA2116-6JP36-0AA0 | | | 3VA2116-7JP36-0AA0 | | | 3VA2116-8JP36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6JP32-0AA0 | | | 3VA2025-7JP32-0AA0 | | | 3VA2025-8JP32-0AA0 | |
| 40 | | 3VA2040-6JP32-0AA0 | | | 3VA2040-7JP32-0AA0 | | | 3VA2040-8JP32-0AA0 | |
| 63 | | 3VA2063-6JP32-0AA0 | | | 3VA2063-7JP32-0AA0 | | | 3VA2063-8JP32-0AA0 | |
| 100 | | 3VA2010-6JP32-0AA0 | | | 3VA2010-7JP32-0AA0 | | | 3VA2010-8JP32-0AA0 | |
| 25 | | 3VA2125-6JP32-0AA0 | | | 3VA2125-7JP32-0AA0 | | | 3VA2125-8JP32-0AA0 | |
| 40 | | 3VA2140-6JP32-0AA0 | | | 3VA2140-7JP32-0AA0 | | | 3VA2140-8JP32-0AA0 | |
| 63 | | 3VA2163-6JP32-0AA0 | | | 3VA2163-7JP32-0AA0 | | | 3VA2163-8JP32-0AA0 | |
| 100 | | 3VA2110-6JP32-0AA0 | | | 3VA2110-7JP32-0AA0 | | | 3VA2110-8JP32-0AA0 | |
| 160 | | 3VA2116-6JP32-0AA0 | | | 3VA2116-7JP32-0AA0 | | | 3VA2116-8JP32-0AA0 | |
| 160 | | 3VA2216-6JP32-0AA0 | | | 3VA2216-7JP32-0AA0 | | | 3VA2216-8JP32-0AA0 | |
| 250 | | 3VA2225-6JP32-0AA0 | | | 3VA2225-7JP32-0AA0 | | | 3VA2225-8JP32-0AA0 | |
| 250 | | 3VA2325-6JP32-0AA0 | | | 3VA2325-7JP32-0AA0 | | | 3VA2325-8JP32-0AA0 | |
| 400 | | 3VA2340-6JP32-0AA0 | | | 3VA2340-7JP32-0AA0 | | | 3VA2340-8JP32-0AA0 | |
| 400 | | 3VA2440-6JP32-0AA0 | | | 3VA2440-7JP32-0AA0 | | | 3VA2440-8JP32-0AA0 | |
| 500 | | 3VA2450-6JP32-0AA0 | | | 3VA2450-7JP32-0AA0 | | | -- | |
| 630 | | 3VA2463-6JP32-0AA0 | | | 3VA2463-7JP32-0AA0 | | | 3VA2463-8JP32-0AA0 | |
| ***Line and generator protection, with display, ETU560 LSIG*** With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$, adjustable instantaneous short-circuit protection $I_i$ and adjustable ground-fault protection $I_g$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6JQ36-0AA0 | | | 3VA2025-7JQ36-0AA0 | | | 3VA2025-8JQ36-0AA0 | |
| 40 | | 3VA2040-6JQ36-0AA0 | | | 3VA2040-7JQ36-0AA0 | | | 3VA2040-8JQ36-0AA0 | |
| 63 | | 3VA2063-6JQ36-0AA0 | | | 3VA2063-7JQ36-0AA0 | | | 3VA2063-8JQ36-0AA0 | |
| 100 | | 3VA2010-6JQ36-0AA0 | | | 3VA2010-7JQ36-0AA0 | | | 3VA2010-8JQ36-0AA0 | |
| 25 | | 3VA2125-6JQ36-0AA0 | | | 3VA2125-7JQ36-0AA0 | | | 3VA2125-8JQ36-0AA0 | |
| 40 | | 3VA2140-6JQ36-0AA0 | | | 3VA2140-7JQ36-0AA0 | | | 3VA2140-8JQ36-0AA0 | |
| 63 | | 3VA2163-6JQ36-0AA0 | | | 3VA2163-7JQ36-0AA0 | | | 3VA2163-8JQ36-0AA0 | |
| 100 | | 3VA2110-6JQ36-0AA0 | | | 3VA2110-7JQ36-0AA0 | | | 3VA2110-8JQ36-0AA0 | |
| 160 | | 3VA2116-6JQ36-0AA0 | | | 3VA2116-7JQ36-0AA0 | | | 3VA2116-8JQ36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6JQ32-0AA0 | | | 3VA2025-7JQ32-0AA0 | | | 3VA2025-8JQ32-0AA0 | |
| 40 | | 3VA2040-6JQ32-0AA0 | | | 3VA2040-7JQ32-0AA0 | | | 3VA2040-8JQ32-0AA0 | |
| 63 | | 3VA2063-6JQ32-0AA0 | | | 3VA2063-7JQ32-0AA0 | | | 3VA2063-8JQ32-0AA0 | |
| 100 | | 3VA2010-6JQ32-0AA0 | | | 3VA2010-7JQ32-0AA0 | | | 3VA2010-8JQ32-0AA0 | |
| 25 | | 3VA2125-6JQ32-0AA0 | | | 3VA2125-7JQ32-0AA0 | | | 3VA2125-8JQ32-0AA0 | |
| 40 | | 3VA2140-6JQ32-0AA0 | | | 3VA2140-7JQ32-0AA0 | | | 3VA2140-8JQ32-0AA0 | |
| 63 | | 3VA2163-6JQ32-0AA0 | | | 3VA2163-7JQ32-0AA0 | | | 3VA2163-8JQ32-0AA0 | |
| 100 | | 3VA2110-6JQ32-0AA0 | | | 3VA2110-7JQ32-0AA0 | | | 3VA2110-8JQ32-0AA0 | |
| 160 | | 3VA2116-6JQ32-0AA0 | | | 3VA2116-7JQ32-0AA0 | | | 3VA2116-8JQ32-0AA0 | |
| 160 | | 3VA2216-6JQ32-0AA0 | | | 3VA2216-7JQ32-0AA0 | | | 3VA2216-8JQ32-0AA0 | |
| 250 | | 3VA2225-6JQ32-0AA0 | | | 3VA2225-7JQ32-0AA0 | | | 3VA2225-8JQ32-0AA0 | |
| 250 | | 3VA2325-6JQ32-0AA0 | | | 3VA2325-7JQ32-0AA0 | | | 3VA2325-8JQ32-0AA0 | |
| 400 | | 3VA2340-6JQ32-0AA0 | | | 3VA2340-7JQ32-0AA0 | | | 3VA2340-8JQ32-0AA0 | |
| 400 | | 3VA2440-6JQ32-0AA0 | | | 3VA2440-7JQ32-0AA0 | | | 3VA2440-8JQ32-0AA0 | |
| 500 | | 3VA2450-6JQ32-0AA0 | | | 3VA2450-7JQ32-0AA0 | | | -- | |
| 630 | | 3VA2463-6JQ32-0AA0 | | | 3VA2463-7JQ32-0AA0 | | | 3VA2463-8JQ32-0AA0 | |

3

* You can order this quantity or a multiple thereof.

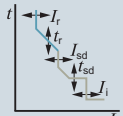
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | | |

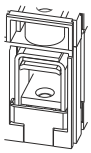
### 3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
### Electronic trip unit


I201_18482



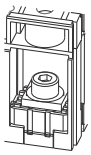

#### *Line and generator protection, with display, with metering function, ETU850 LSI*

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and adjustable instantaneous short-circuit protection $I_i$



**Connection with box terminal**

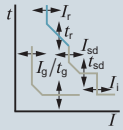
| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5KP36-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5KP36-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5KP36-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5KP36-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5KP36-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5KP36-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5KP36-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5KP36-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5KP36-0AA0 |



**Connection with lug terminal**

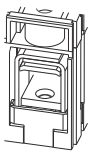
| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5KP32-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5KP32-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5KP32-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5KP32-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5KP32-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5KP32-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5KP32-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5KP32-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5KP32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1920 | 3VA2216-5KP32-0AA0 |
| | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 2500 | 3VA2225-5KP32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 3000 | 3VA2325-5KP32-0AA0 |
| | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 4000 | 3VA2340-5KP32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 6000[1)] | 3VA2440-5KP32-0AA0 |
| | 500 | 200 ... 500 | 300 ... 5000 | 750 ... 7000 | 3VA2450-5KP32-0AA0 |
| | 630 | 250 ... 630 | 378 ... 5670 | 945 ... 5670 | 3VA2463-5KP32-0AA0 |


I201_18483



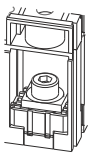

#### *Line and generator protection, with display, with metering function, ETU860 LSIG*

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$, adjustable instantaneous short-circuit protection $I_i$ and adjustable ground-fault protection $I_g$



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5KQ36-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5KQ36-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5KQ36-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5KQ36-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5KQ36-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5KQ36-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5KQ36-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5KQ36-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5KQ36-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5KQ32-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5KQ32-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5KQ32-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5KQ32-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5KQ32-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5KQ32-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5KQ32-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5KQ32-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5KQ32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1920 | 3VA2216-5KQ32-0AA0 |
| | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 2500 | 3VA2225-5KQ32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 3000 | 3VA2325-5KQ32-0AA0 |
| | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 4000 | 3VA2340-5KQ32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 6000[1)] | 3VA2440-5KQ32-0AA0 |
| | 500 | 200 ... 500 | 300 ... 5000 | 750 ... 7000 | 3VA2450-5KQ32-0AA0 |
| | 630 | 250 ... 630 | 378 ... 5670 | 945 ... 5670 | 3VA2463-5KQ32-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |
| ***Line and generator protection, with display, with metering function, ETU850 LSI*** With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and adjustable instantaneous short-circuit protection $I_i$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6KP36-0AA0 | | | 3VA2025-7KP36-0AA0 | | | 3VA2025-8KP36-0AA0 | |
| 40 | | 3VA2040-6KP36-0AA0 | | | 3VA2040-7KP36-0AA0 | | | 3VA2040-8KP36-0AA0 | |
| 63 | | 3VA2063-6KP36-0AA0 | | | 3VA2063-7KP36-0AA0 | | | 3VA2063-8KP36-0AA0 | |
| 100 | | 3VA2010-6KP36-0AA0 | | | 3VA2010-7KP36-0AA0 | | | 3VA2010-8KP36-0AA0 | |
| 25 | | 3VA2125-6KP36-0AA0 | | | 3VA2125-7KP36-0AA0 | | | 3VA2125-8KP36-0AA0 | |
| 40 | | 3VA2140-6KP36-0AA0 | | | 3VA2140-7KP36-0AA0 | | | 3VA2140-8KP36-0AA0 | |
| 63 | | 3VA2163-6KP36-0AA0 | | | 3VA2163-7KP36-0AA0 | | | 3VA2163-8KP36-0AA0 | |
| 100 | | 3VA2110-6KP36-0AA0 | | | 3VA2110-7KP36-0AA0 | | | 3VA2110-8KP36-0AA0 | |
| 160 | | 3VA2116-6KP36-0AA0 | | | 3VA2116-7KP36-0AA0 | | | 3VA2116-8KP36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6KP32-0AA0 | | | 3VA2025-7KP32-0AA0 | | | 3VA2025-8KP32-0AA0 | |
| 40 | | 3VA2040-6KP32-0AA0 | | | 3VA2040-7KP32-0AA0 | | | 3VA2040-8KP32-0AA0 | |
| 63 | | 3VA2063-6KP32-0AA0 | | | 3VA2063-7KP32-0AA0 | | | 3VA2063-8KP32-0AA0 | |
| 100 | | 3VA2010-6KP32-0AA0 | | | 3VA2010-7KP32-0AA0 | | | 3VA2010-8KP32-0AA0 | |
| 25 | | 3VA2125-6KP32-0AA0 | | | 3VA2125-7KP32-0AA0 | | | 3VA2125-8KP32-0AA0 | |
| 40 | | 3VA2140-6KP32-0AA0 | | | 3VA2140-7KP32-0AA0 | | | 3VA2140-8KP32-0AA0 | |
| 63 | | 3VA2163-6KP32-0AA0 | | | 3VA2163-7KP32-0AA0 | | | 3VA2163-8KP32-0AA0 | |
| 100 | | 3VA2110-6KP32-0AA0 | | | 3VA2110-7KP32-0AA0 | | | 3VA2110-8KP32-0AA0 | |
| 160 | | 3VA2116-6KP32-0AA0 | | | 3VA2116-7KP32-0AA0 | | | 3VA2116-8KP32-0AA0 | |
| 160 | | 3VA2216-6KP32-0AA0 | | | 3VA2216-7KP32-0AA0 | | | 3VA2216-8KP32-0AA0 | |
| 250 | | 3VA2225-6KP32-0AA0 | | | 3VA2225-7KP32-0AA0 | | | 3VA2225-8KP32-0AA0 | |
| 250 | | 3VA2325-6KP32-0AA0 | | | 3VA2325-7KP32-0AA0 | | | 3VA2325-8KP32-0AA0 | |
| 400 | | 3VA2340-6KP32-0AA0 | | | 3VA2340-7KP32-0AA0 | | | 3VA2340-8KP32-0AA0 | |
| 400 | | 3VA2440-6KP32-0AA0 | | | 3VA2440-7KP32-0AA0 | | | 3VA2440-8KP32-0AA0 | |
| 500 | | 3VA2450-6KP32-0AA0 | | | 3VA2450-7KP32-0AA0 | | | -- | |
| 630 | | 3VA2463-6KP32-0AA0 | | | 3VA2463-7KP32-0AA0 | | | 3VA2463-8KP32-0AA0 | |
| ***Line and generator protection, with display, with metering function, ETU860 LSIG*** With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$, adjustable instantaneous short-circuit protection $I_i$ and adjustable ground-fault protection $I_g$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6KQ36-0AA0 | | | 3VA2025-7KQ36-0AA0 | | | 3VA2025-8KQ36-0AA0 | |
| 40 | | 3VA2040-6KQ36-0AA0 | | | 3VA2040-7KQ36-0AA0 | | | 3VA2040-8KQ36-0AA0 | |
| 63 | | 3VA2063-6KQ36-0AA0 | | | 3VA2063-7KQ36-0AA0 | | | 3VA2063-8KQ36-0AA0 | |
| 100 | | 3VA2010-6KQ36-0AA0 | | | 3VA2010-7KQ36-0AA0 | | | 3VA2010-8KQ36-0AA0 | |
| 25 | | 3VA2125-6KQ36-0AA0 | | | 3VA2125-7KQ36-0AA0 | | | 3VA2125-8KQ36-0AA0 | |
| 40 | | 3VA2140-6KQ36-0AA0 | | | 3VA2140-7KQ36-0AA0 | | | 3VA2140-8KQ36-0AA0 | |
| 63 | | 3VA2163-6KQ36-0AA0 | | | 3VA2163-7KQ36-0AA0 | | | 3VA2163-8KQ36-0AA0 | |
| 100 | | 3VA2110-6KQ36-0AA0 | | | 3VA2110-7KQ36-0AA0 | | | 3VA2110-8KQ36-0AA0 | |
| 160 | | 3VA2116-6KQ36-0AA0 | | | 3VA2116-7KQ36-0AA0 | | | 3VA2116-8KQ36-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6KQ32-0AA0 | | | 3VA2025-7KQ32-0AA0 | | | 3VA2025-8KQ32-0AA0 | |
| 40 | | 3VA2040-6KQ32-0AA0 | | | 3VA2040-7KQ32-0AA0 | | | 3VA2040-8KQ32-0AA0 | |
| 63 | | 3VA2063-6KQ32-0AA0 | | | 3VA2063-7KQ32-0AA0 | | | 3VA2063-8KQ32-0AA0 | |
| 100 | | 3VA2010-6KQ32-0AA0 | | | 3VA2010-7KQ32-0AA0 | | | 3VA2010-8KQ32-0AA0 | |
| 25 | | 3VA2125-6KQ32-0AA0 | | | 3VA2125-7KQ32-0AA0 | | | 3VA2125-8KQ32-0AA0 | |
| 40 | | 3VA2140-6KQ32-0AA0 | | | 3VA2140-7KQ32-0AA0 | | | 3VA2140-8KQ32-0AA0 | |
| 63 | | 3VA2163-6KQ32-0AA0 | | | 3VA2163-7KQ32-0AA0 | | | 3VA2163-8KQ32-0AA0 | |
| 100 | | 3VA2110-6KQ32-0AA0 | | | 3VA2110-7KQ32-0AA0 | | | 3VA2110-8KQ32-0AA0 | |
| 160 | | 3VA2116-6KQ32-0AA0 | | | 3VA2116-7KQ32-0AA0 | | | 3VA2116-8KQ32-0AA0 | |
| 160 | | 3VA2216-6KQ32-0AA0 | | | 3VA2216-7KQ32-0AA0 | | | 3VA2216-8KQ32-0AA0 | |
| 250 | | 3VA2225-6KQ32-0AA0 | | | 3VA2225-7KQ32-0AA0 | | | 3VA2225-8KQ32-0AA0 | |
| 250 | | 3VA2325-6KQ32-0AA0 | | | 3VA2325-7KQ32-0AA0 | | | 3VA2325-8KQ32-0AA0 | |
| 400 | | 3VA2340-6KQ32-0AA0 | | | 3VA2340-7KQ32-0AA0 | | | 3VA2340-8KQ32-0AA0 | |
| 400 | | 3VA2440-6KQ32-0AA0 | | | 3VA2440-7KQ32-0AA0 | | | 3VA2440-8KQ32-0AA0 | |
| 500 | | 3VA2450-6KQ32-0AA0 | | | 3VA2450-7KQ32-0AA0 | | | -- | |
| 630 | | 3VA2463-6KQ32-0AA0 | | | 3VA2463-7KQ32-0AA0 | | | 3VA2463-8KQ32-0AA0 | |



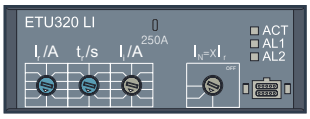
* You can order this quantity or a multiple thereof.

### Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | Article No. www.siemens.com/product?Article No. | Basic price per PU |

#### 4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
#### Electronic trip unit

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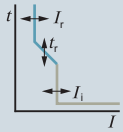
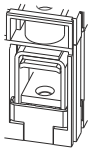


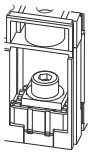

***Line protection, ETU320 LI***

With adjustable overload protection $I_r$ and adjustable instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit 0 % or 100 % (and 50 % with $I_n$ 100 A and above)



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | -- | 38 ... 300 | 3VA2025-5HL46-0AA0 |
| | 40 | 16 ... 40 | -- | 60 ... 480 | 3VA2040-5HL46-0AA0 |
| | 63 | 25 ... 63 | -- | 95 ... 756 | 3VA2063-5HL46-0AA0 |
| | 100 | 40 ... 100 | -- | 150 ... 1200 | 3VA2010-5HL46-0AA0 |
| 3VA21 | 25 | 10 ... 25 | -- | 38 ... 300 | 3VA2125-5HL46-0AA0 |
| | 40 | 16 ... 40 | -- | 60 ... 480 | 3VA2140-5HL46-0AA0 |
| | 63 | 25 ... 63 | -- | 95 ... 756 | 3VA2163-5HL46-0AA0 |
| | 100 | 40 ... 100 | -- | 150 ... 1200 | 3VA2110-5HL46-0AA0 |
| | 160 | 63 ... 160 | -- | 240 ... 1600 | 3VA2116-5HL46-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | -- | 38 ... 300 | 3VA2025-5HL42-0AA0 |
| | 40 | 16 ... 40 | -- | 60 ... 480 | 3VA2040-5HL42-0AA0 |
| | 63 | 25 ... 63 | -- | 95 ... 756 | 3VA2063-5HL42-0AA0 |
| | 100 | 40 ... 100 | -- | 150 ... 1200 | 3VA2010-5HL42-0AA0 |
| 3VA21 | 25 | 10 ... 25 | -- | 38 ... 300 | 3VA2125-5HL42-0AA0 |
| | 40 | 16 ... 40 | -- | 60 ... 480 | 3VA2140-5HL42-0AA0 |
| | 63 | 25 ... 63 | -- | 95 ... 756 | 3VA2163-5HL42-0AA0 |
| | 100 | 40 ... 100 | -- | 150 ... 1200 | 3VA2110-5HL42-0AA0 |
| | 160 | 63 ... 160 | -- | 240 ... 1600 | 3VA2116-5HL42-0AA0 |
| 3VA22 | 160 | 63 ... 160 | -- | 240 ... 1920 | 3VA2216-5HL42-0AA0 |
| | 250 | 100 ... 250 | -- | 375 ... 2500 | 3VA2225-5HL42-0AA0 |
| 3VA23 | 250 | 100 ... 250 | -- | 375 ... 3000 | 3VA2325-5HL42-0AA0 |
| | 400 | 160 ... 400 | -- | 600 ... 4000 | 3VA2340-5HL42-0AA0 |
| 3VA24 | 400 | 160 ... 400 | -- | 600 ... 4800[1)] | 3VA2440-5HL42-0AA0 |
| | 630 | 250 ... 630 | -- | 945 ... 5670 | 3VA2463-5HL42-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |

***Line protection, ETU320 LI***
With adjustable overload protection $I_r$ and adjustable instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit 0 % or 100 % (and 50 % with $I_n$ 100 A and above)

| | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| **Connection with box terminal** | | | | | | | | | |
| 25 | | 3VA2025-6HL46-0AA0 | | | 3VA2025-7HL46-0AA0 | | | 3VA2025-8HL46-0AA0 | |
| 40 | | 3VA2040-6HL46-0AA0 | | | 3VA2040-7HL46-0AA0 | | | 3VA2040-8HL46-0AA0 | |
| 63 | | 3VA2063-6HL46-0AA0 | | | 3VA2063-7HL46-0AA0 | | | 3VA2063-8HL46-0AA0 | |
| 100 | | 3VA2010-6HL46-0AA0 | | | 3VA2010-7HL46-0AA0 | | | 3VA2010-8HL46-0AA0 | |
| 25 | | 3VA2125-6HL46-0AA0 | | | 3VA2125-7HL46-0AA0 | | | 3VA2125-8HL46-0AA0 | |
| 40 | | 3VA2140-6HL46-0AA0 | | | 3VA2140-7HL46-0AA0 | | | 3VA2140-8HL46-0AA0 | |
| 63 | | 3VA2163-6HL46-0AA0 | | | 3VA2163-7HL46-0AA0 | | | 3VA2163-8HL46-0AA0 | |
| 100 | | 3VA2110-6HL46-0AA0 | | | 3VA2110-7HL46-0AA0 | | | 3VA2110-8HL46-0AA0 | |
| 160 | | 3VA2116-6HL46-0AA0 | | | 3VA2116-7HL46-0AA0 | | | 3VA2116-8HL46-0AA0 | |
| **Connection with lug terminal** | | | | | | | | | |
| 25 | | 3VA2025-6HL42-0AA0 | | | 3VA2025-7HL42-0AA0 | | | 3VA2025-8HL42-0AA0 | |
| 40 | | 3VA2040-6HL42-0AA0 | | | 3VA2040-7HL42-0AA0 | | | 3VA2040-8HL42-0AA0 | |
| 63 | | 3VA2063-6HL42-0AA0 | | | 3VA2063-7HL42-0AA0 | | | 3VA2063-8HL42-0AA0 | |
| 100 | | 3VA2010-6HL42-0AA0 | | | 3VA2010-7HL42-0AA0 | | | 3VA2010-8HL42-0AA0 | |
| 25 | | 3VA2125-6HL42-0AA0 | | | 3VA2125-7HL42-0AA0 | | | 3VA2125-8HL42-0AA0 | |
| 40 | | 3VA2140-6HL42-0AA0 | | | 3VA2140-7HL42-0AA0 | | | 3VA2140-8HL42-0AA0 | |
| 63 | | 3VA2163-6HL42-0AA0 | | | 3VA2163-7HL42-0AA0 | | | 3VA2163-8HL42-0AA0 | |
| 100 | | 3VA2110-6HL42-0AA0 | | | 3VA2110-7HL42-0AA0 | | | 3VA2110-8HL42-0AA0 | |
| 160 | | 3VA2116-6HL42-0AA0 | | | 3VA2116-7HL42-0AA0 | | | 3VA2116-8HL42-0AA0 | |
| 160 | | 3VA2216-6HL42-0AA0 | | | 3VA2216-7HL42-0AA0 | | | 3VA2216-8HL42-0AA0 | |
| 250 | | 3VA2225-6HL42-0AA0 | | | 3VA2225-7HL42-0AA0 | | | 3VA2225-8HL42-0AA0 | |
| 250 | | 3VA2325-6HL42-0AA0 | | | 3VA2325-7HL42-0AA0 | | | 3VA2325-8HL42-0AA0 | |
| 400 | | 3VA2340-6HL42-0AA0 | | | 3VA2340-7HL42-0AA0 | | | 3VA2340-8HL42-0AA0 | |
| 400 | | 3VA2440-6HL42-0AA0 | | | 3VA2440-7HL42-0AA0 | | | 3VA2440-8HL42-0AA0 | |
| 630 | | 3VA2463-6HL42-0AA0 | | | 3VA2463-7HL42-0AA0 | | | 3VA2463-8HL42-0AA0 | |

3

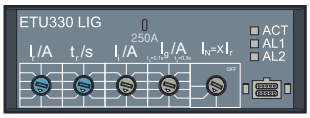
*** You can order this quantity or a multiple thereof.**

## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | Operating current of the instantaneous short-circuit protection "I" $I_i$ | Ground-fault protection G $I_g$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | Article No. www.siemens.com/product?Article No. | Basic price per PU |

### 4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
### Electronic trip unit

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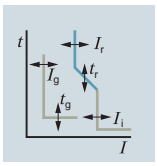
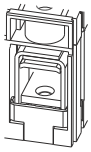


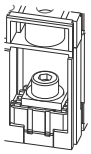

***Line protection, ETU330 LIG***

With adjustable overload protection $I_r$ and adjustable instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit 0 % or 100 % (and 50 % with $I_n$ 100 A and above) and adjustable ground-fault protection $I_g$



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 38 ... 300 | 15 ... 25 | 3VA2025-5HM46-0AA0 |
| | 40 | 16 ... 40 | 60 ... 480 | 16 ... 40 | 3VA2040-5HM46-0AA0 |
| | 63 | 25 ... 63 | 95 ... 756 | 16 ... 63 | 3VA2063-5HM46-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1200 | 20 ... 100 | 3VA2010-5HM46-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 38 ... 300 | 15 ... 25 | 3VA2125-5HM46-0AA0 |
| | 40 | 16 ... 40 | 60 ... 480 | 16 ... 40 | 3VA2140-5HM46-0AA0 |
| | 63 | 25 ... 63 | 95 ... 756 | 16 ... 63 | 3VA2163-5HM46-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1200 | 20 ... 100 | 3VA2110-5HM46-0AA0 |
| | 160 | 63 ... 160 | 240 ... 1600 | 32 ... 160 | 3VA2116-5HM46-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 38 ... 300 | 15 ... 25 | 3VA2025-5HM42-0AA0 |
| | 40 | 16 ... 40 | 60 ... 480 | 16 ... 40 | 3VA2040-5HM42-0AA0 |
| | 63 | 25 ... 63 | 95 ... 756 | 16 ... 63 | 3VA2063-5HM42-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1200 | 20 ... 100 | 3VA2010-5HM42-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 38 ... 300 | 15 ... 25 | 3VA2125-5HM42-0AA0 |
| | 40 | 16 ... 40 | 60 ... 480 | 16 ... 40 | 3VA2140-5HM42-0AA0 |
| | 63 | 25 ... 63 | 95 ... 756 | 16 ... 63 | 3VA2163-5HM42-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1200 | 20 ... 100 | 3VA2110-5HM42-0AA0 |
| | 160 | 63 ... 160 | 240 ... 1600 | 32 ... 160 | 3VA2116-5HM42-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 240 ... 1920 | 32 ... 160 | 3VA2216-5HM42-0AA0 |
| | 250 | 100 ... 250 | 375 ... 2500 | 50 ... 250 | 3VA2225-5HM42-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 375 ... 3000 | 50 ... 250 | 3VA2325-5HM42-0AA0 |
| | 400 | 160 ... 400 | 600 ... 4000 | 80 ... 400 | 3VA2340-5HM42-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 600 ... 4800[1)] | 80 ... 400 | 3VA2440-5HM42-0AA0 |
| | 630 | 250 ... 630 | 945 ... 5670 | 126 ... 630 | 3VA2463-5HM42-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 |
|---|---|---|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. / Basic price per PU | | Article No. www.siemens.com/product?Article No. / Basic price per PU | | Article No. www.siemens.com/product?Article No. / Basic price per PU |
| A | | | | | | |

### *Line protection, ETU330 LIG*

With adjustable overload protection $I_r$ and adjustable instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit 0 % or 100 % (and 50 % with $I_n$ 100 A and above) and adjustable ground-fault protection $I_g$

| | Connection with box terminal | | |
|---|---|---|---|
| 25 | 3VA2025-6HM46-0AA0 | 3VA2025-7HM46-0AA0 | 3VA2025-8HM46-0AA0 |
| 40 | 3VA2040-6HM46-0AA0 | 3VA2040-7HM46-0AA0 | 3VA2040-8HM46-0AA0 |
| 63 | 3VA2063-6HM46-0AA0 | 3VA2063-7HM46-0AA0 | 3VA2063-8HM46-0AA0 |
| 100 | 3VA2010-6HM46-0AA0 | 3VA2010-7HM46-0AA0 | 3VA2010-8HM46-0AA0 |
| 25 | 3VA2125-6HM46-0AA0 | 3VA2125-7HM46-0AA0 | 3VA2125-8HM46-0AA0 |
| 40 | 3VA2140-6HM46-0AA0 | 3VA2140-7HM46-0AA0 | 3VA2140-8HM46-0AA0 |
| 63 | 3VA2163-6HM46-0AA0 | 3VA2163-7HM46-0AA0 | 3VA2163-8HM46-0AA0 |
| 100 | 3VA2110-6HM46-0AA0 | 3VA2110-7HM46-0AA0 | 3VA2110-8HM46-0AA0 |
| 160 | 3VA2116-6HM46-0AA0 | 3VA2116-7HM46-0AA0 | 3VA2116-8HM46-0AA0 |
| | **Connection with lug terminal** | | |
| 25 | 3VA2025-6HM42-0AA0 | 3VA2025-7HM42-0AA0 | 3VA2025-8HM42-0AA0 |
| 40 | 3VA2040-6HM42-0AA0 | 3VA2040-7HM42-0AA0 | 3VA2040-8HM42-0AA0 |
| 63 | 3VA2063-6HM42-0AA0 | 3VA2063-7HM42-0AA0 | 3VA2063-8HM42-0AA0 |
| 100 | 3VA2010-6HM42-0AA0 | 3VA2010-7HM42-0AA0 | 3VA2010-8HM42-0AA0 |
| 25 | 3VA2125-6HM42-0AA0 | 3VA2125-7HM42-0AA0 | 3VA2125-8HM42-0AA0 |
| 40 | 3VA2140-6HM42-0AA0 | 3VA2140-7HM42-0AA0 | 3VA2140-8HM42-0AA0 |
| 63 | 3VA2163-6HM42-0AA0 | 3VA2163-7HM42-0AA0 | 3VA2163-8HM42-0AA0 |
| 100 | 3VA2110-6HM42-0AA0 | 3VA2110-7HM42-0AA0 | 3VA2110-8HM42-0AA0 |
| 160 | 3VA2116-6HM42-0AA0 | 3VA2116-7HM42-0AA0 | 3VA2116-8HM42-0AA0 |
| 160 | 3VA2216-6HM42-0AA0 | 3VA2216-7HM42-0AA0 | 3VA2216-8HM42-0AA0 |
| 250 | 3VA2225-6HM42-0AA0 | 3VA2225-7HM42-0AA0 | 3VA2225-8HM42-0AA0 |
| 250 | 3VA2325-6HM42-0AA0 | 3VA2325-7HM42-0AA0 | 3VA2325-8HM42-0AA0 |
| 400 | 3VA2340-6HM42-0AA0 | 3VA2340-7HM42-0AA0 | 3VA2340-8HM42-0AA0 |
| 400 | 3VA2440-6HM42-0AA0 | 3VA2440-7HM42-0AA0 | 3VA2440-8HM42-0AA0 |
| 630 | 3VA2463-6HM42-0AA0 | 3VA2463-7HM42-0AA0 | 3VA2463-8HM42-0AA0 |

3

* You can order this quantity or a multiple thereof.

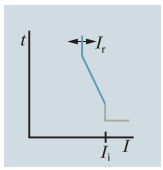
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

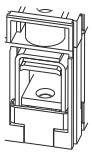
| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** See "Overview", p. 1/4 and 1/5 (M) | |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | Article No. www.siemens.com/product?Article No. | Basic price per PU |

### 4-pole, fixed-mounted, 3VA21 to 3VA24, up to 630 A
### Electronic trip unit


I201_18427

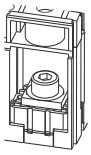



***Line protection, ETU340 ELISA***
With easily adjustable characteristic (characteristic form of a fuse) with "N" overload and short-circuit release 0 %, 50 % or 100 %



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA21 | 25 | 10 ... 25 | -- | 375 | 3VA2125-5HK46-0AA0 |
| | 40 | 16 ... 40 | -- | 600 | 3VA2140-5HK46-0AA0 |
| | 63 | 25 ... 63 | -- | 945 | 3VA2163-5HK46-0AA0 |
| | 100 | 40 ... 100 | -- | 1500 | 3VA2110-5HK46-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA21 | 25 | 10 ... 25 | -- | 375 | 3VA2125-5HK42-0AA0 |
| | 40 | 16 ... 40 | -- | 600 | 3VA2140-5HK42-0AA0 |
| | 63 | 25 ... 63 | -- | 945 | 3VA2163-5HK42-0AA0 |
| | 100 | 40 ... 100 | -- | 1500 | 3VA2110-5HK42-0AA0 |
| 3VA22 | 160 | 63 ... 160 | -- | 2400 | 3VA2216-5HK42-0AA0 |
| 3VA23 | 250 | 100 ... 250 | -- | 3750 | 3VA2325-5HK42-0AA0 |
| 3VA24 | 400 | 160 ... 400 | -- | 6000[1] | 3VA2440-5HK42-0AA0 |
| | 500 | 200 ... 500 | -- | 7000 | 3VA2450-5HK42-0AA0 |
| | 630 | 250 ... 630 | -- | 5670 | 3VA2463-5HK42-0AA0 |

[1] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |

***Line protection, ETU340 ELISA***
With easily adjustable characteristic (characteristic form of a fuse) with "N" overload and short-circuit release 0 %, 50 % or 100 %

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2125-6HK46-0AA0 | | | 3VA2125-7HK46-0AA0 | | | 3VA2125-8HK46-0AA0 | |
| 40 | | 3VA2140-6HK46-0AA0 | | | 3VA2140-7HK46-0AA0 | | | 3VA2140-8HK46-0AA0 | |
| 63 | | 3VA2163-6HK46-0AA0 | | | 3VA2163-7HK46-0AA0 | | | 3VA2163-8HK46-0AA0 | |
| 100 | | 3VA2110-6HK46-0AA0 | | | 3VA2110-7HK46-0AA0 | | | 3VA2110-8HK46-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2125-6HK42-0AA0 | | | 3VA2125-7HK42-0AA0 | | | 3VA2125-8HK42-0AA0 | |
| 40 | | 3VA2140-6HK42-0AA0 | | | 3VA2140-7HK42-0AA0 | | | 3VA2140-8HK42-0AA0 | |
| 63 | | 3VA2163-6HK42-0AA0 | | | 3VA2163-7HK42-0AA0 | | | 3VA2163-8HK42-0AA0 | |
| 100 | | 3VA2110-6HK42-0AA0 | | | 3VA2110-7HK42-0AA0 | | | 3VA2110-8HK42-0AA0 | |
| 160 | | 3VA2216-6HK42-0AA0 | | | 3VA2216-7HK42-0AA0 | | | 3VA2216-8HK42-0AA0 | |
| 250 | | 3VA2325-6HK42-0AA0 | | | 3VA2325-7HK42-0AA0 | | | 3VA2325-8HK42-0AA0 | |
| 400 | | 3VA2440-6HK42-0AA0 | | | 3VA2440-7HK42-0AA0 | | | 3VA2440-8HK42-0AA0 | |
| 500 | | 3VA2450-6HK42-0AA0 | | | 3VA2450-7HK42-0AA0 | | | 3VA2450-8HK42-0AA0 | |
| 630 | | 3VA2463-6HK42-0AA0 | | | 3VA2463-7HK42-0AA0 | | | 3VA2463-8HK42-0AA0 | |

3

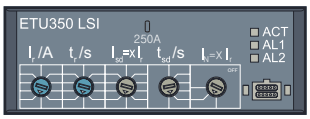
*** You can order this quantity or a multiple thereof.**

### Line protection

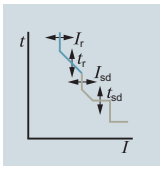
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instan-taneous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| | | A | A | A | A | | | |

#### 4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
#### Electronic trip unit




I201_18828

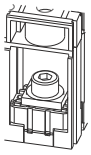



***Line and generator protection, ETU350 LSI***

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit 0 % or 100 % (and 50 % with $I_n$ 100 A and above)

**Connection with box terminal**

| | $I_r$ x ... | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 1.5 ... 10 | 300 | 3VA2025-5HN46-0AA0 |
| | 40 | 16 ... 40 | 1.5 ... 10 | 480 | 3VA2040-5HN46-0AA0 |
| | 63 | 25 ... 63 | 1.5 ... 10 | 756 | 3VA2063-5HN46-0AA0 |
| | 100 | 40 ... 100 | 1.5 ... 10 | 1200 | 3VA2010-5HN46-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 1.5 ... 10 | 300 | 3VA2125-5HN46-0AA0 |
| | 40 | 16 ... 40 | 1.5 ... 10 | 480 | 3VA2140-5HN46-0AA0 |
| | 63 | 25 ... 63 | 1.5 ... 10 | 756 | 3VA2163-5HN46-0AA0 |
| | 100 | 40 ... 100 | 1.5 ... 10 | 1200 | 3VA2110-5HN46-0AA0 |
| | 160 | 63 ... 160 | 1.5 ... 10 | 1600 | 3VA2116-5HN46-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 1.5 ... 10 | 300 | 3VA2025-5HN42-0AA0 |
| | 40 | 16 ... 40 | 1.5 ... 10 | 480 | 3VA2040-5HN42-0AA0 |
| | 63 | 25 ... 63 | 1.5 ... 10 | 756 | 3VA2063-5HN42-0AA0 |
| | 100 | 40 ... 100 | 1.5 ... 10 | 1200 | 3VA2010-5HN42-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 1.5 ... 10 | 300 | 3VA2125-5HN42-0AA0 |
| | 40 | 16 ... 40 | 1.5 ... 10 | 480 | 3VA2140-5HN42-0AA0 |
| | 63 | 25 ... 63 | 1.5 ... 10 | 756 | 3VA2163-5HN42-0AA0 |
| | 100 | 40 ... 100 | 1.5 ... 10 | 1200 | 3VA2110-5HN42-0AA0 |
| | 160 | 63 ... 160 | 1.5 ... 10 | 1600 | 3VA2116-5HN42-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 1.5 ... 10 | 1920 | 3VA2216-5HN42-0AA0 |
| | 250 | 100 ... 250 | 1.5 ... 10 | 2500 | 3VA2225-5HN42-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 1.5 ... 10 | 3000 | 3VA2325-5HN42-0AA0 |
| | 400 | 160 ... 400 | 1.5 ... 10 | 4000 | 3VA2340-5HN42-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 1.5 ... 10 | 4800[1)] | 3VA2440-5HN42-0AA0 |
| | 630 | 250 ... 630 | 1.5 ... 9 | 5670 | 3VA2463-5HN42-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |

### *Line and generator protection, ETU350 LSI*

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit 0 % or 100 % (and 50 % with $I_n$ 100 A and above)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6HN46-0AA0 | | | 3VA2025-7HN46-0AA0 | | | 3VA2025-8HN46-0AA0 |
| 40 | | 3VA2040-6HN46-0AA0 | | | 3VA2040-7HN46-0AA0 | | | 3VA2040-8HN46-0AA0 |
| 63 | | 3VA2063-6HN46-0AA0 | | | 3VA2063-7HN46-0AA0 | | | 3VA2063-8HN46-0AA0 |
| 100 | | 3VA2010-6HN46-0AA0 | | | 3VA2010-7HN46-0AA0 | | | 3VA2010-8HN46-0AA0 |
| 25 | | 3VA2125-6HN46-0AA0 | | | 3VA2125-7HN46-0AA0 | | | 3VA2125-8HN46-0AA0 |
| 40 | | 3VA2140-6HN46-0AA0 | | | 3VA2140-7HN46-0AA0 | | | 3VA2140-8HN46-0AA0 |
| 63 | | 3VA2163-6HN46-0AA0 | | | 3VA2163-7HN46-0AA0 | | | 3VA2163-8HN46-0AA0 |
| 100 | | 3VA2110-6HN46-0AA0 | | | 3VA2110-7HN46-0AA0 | | | 3VA2110-8HN46-0AA0 |
| 160 | | 3VA2116-6HN46-0AA0 | | | 3VA2116-7HN46-0AA0 | | | 3VA2116-8HN46-0AA0 |
| | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6HN42-0AA0 | | | 3VA2025-7HN42-0AA0 | | | 3VA2025-8HN42-0AA0 |
| 40 | | 3VA2040-6HN42-0AA0 | | | 3VA2040-7HN42-0AA0 | | | 3VA2040-8HN42-0AA0 |
| 63 | | 3VA2063-6HN42-0AA0 | | | 3VA2063-7HN42-0AA0 | | | 3VA2063-8HN42-0AA0 |
| 100 | | 3VA2010-6HN42-0AA0 | | | 3VA2010-7HN42-0AA0 | | | 3VA2010-8HN42-0AA0 |
| 25 | | 3VA2125-6HN42-0AA0 | | | 3VA2125-7HN42-0AA0 | | | 3VA2125-8HN42-0AA0 |
| 40 | | 3VA2140-6HN42-0AA0 | | | 3VA2140-7HN42-0AA0 | | | 3VA2140-8HN42-0AA0 |
| 63 | | 3VA2163-6HN42-0AA0 | | | 3VA2163-7HN42-0AA0 | | | 3VA2163-8HN42-0AA0 |
| 100 | | 3VA2110-6HN42-0AA0 | | | 3VA2110-7HN42-0AA0 | | | 3VA2110-8HN42-0AA0 |
| 160 | | 3VA2116-6HN42-0AA0 | | | 3VA2116-7HN42-0AA0 | | | 3VA2116-8HN42-0AA0 |
| 160 | | 3VA2216-6HN42-0AA0 | | | 3VA2216-7HN42-0AA0 | | | 3VA2216-8HN42-0AA0 |
| 250 | | 3VA2225-6HN42-0AA0 | | | 3VA2225-7HN42-0AA0 | | | 3VA2225-8HN42-0AA0 |
| 250 | | 3VA2325-6HN42-0AA0 | | | 3VA2325-7HN42-0AA0 | | | 3VA2325-8HN42-0AA0 |
| 400 | | 3VA2340-6HN42-0AA0 | | | 3VA2340-7HN42-0AA0 | | | 3VA2340-8HN42-0AA0 |
| 400 | | 3VA2440-6HN42-0AA0 | | | 3VA2440-7HN42-0AA0 | | | 3VA2440-8HN42-0AA0 |
| 630 | | 3VA2463-6HN42-0AA0 | | | 3VA2463-7HN42-0AA0 | | | 3VA2463-8HN42-0AA0 |



* You can order this quantity or a multiple thereof.

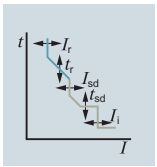
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instantaneous short-circuit protection "I" $I_i$ | DT | **$I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M** (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | | |

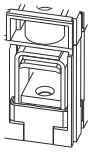
### 4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
### Electronic trip unit


I201_18480



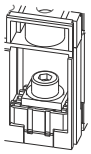

#### *Line and generator protection, with display, ETU550 LSI*

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 %



**Connection with box terminal**

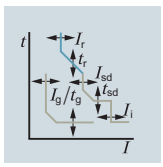
| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5JP46-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5JP46-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5JP46-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5JP46-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5JP46-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5JP46-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5JP46-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5JP46-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5JP46-0AA0 |



**Connection with lug terminal**

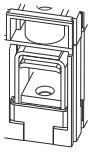
| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5JP42-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5JP42-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5JP42-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5JP42-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5JP42-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5JP42-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5JP42-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5JP42-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5JP42-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1920 | 3VA2216-5JP42-0AA0 |
| | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 2500 | 3VA2225-5JP42-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 3000 | 3VA2325-5JP42-0AA0 |
| | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 4000 | 3VA2340-5JP42-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 6000[1)] | 3VA2440-5JP42-0AA0 |
| | 500 | 200 ... 500 | 300 ... 5000 | 750 ... 7000 | 3VA2450-5JP42-0AA0 |
| | 630 | 250 ... 630 | 378 ... 5670 | 945 ... 5670 | 3VA2463-5JP42-0AA0 |


I201_18481



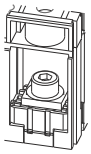

#### *Line and generator protection, with display, ETU560 LSIG*

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % and adjustable ground-fault protection $I_g$



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5JQ46-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5JQ46-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5JQ46-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5JQ46-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5JQ46-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5JQ46-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5JQ46-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5JQ46-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5JQ46-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5JQ42-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5JQ42-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5JQ42-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5JQ42-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5JQ42-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5JQ42-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5JQ42-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5JQ42-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5JQ42-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1920 | 3VA2216-5JQ42-0AA0 |
| | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 2500 | 3VA2225-5JQ42-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 3000 | 3VA2325-5JQ42-0AA0 |
| | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 4000 | 3VA2340-5JQ42-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 6000[1)] | 3VA2440-5JQ42-0AA0 |
| | 500 | 200 ... 500 | 300 ... 5000 | 750 ... 7000 | 3VA2450-5JQ42-0AA0 |
| | 630 | 250 ... 630 | 378 ... 5670 | 945 ... 5670 | 3VA2463-5JQ42-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |
| ***Line and generator protection, with display, ETU550 LSI*** With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6JP46-0AA0 | | | 3VA2025-7JP46-0AA0 | | | 3VA2025-8JP46-0AA0 | |
| 40 | | 3VA2040-6JP46-0AA0 | | | 3VA2040-7JP46-0AA0 | | | 3VA2040-8JP46-0AA0 | |
| 63 | | 3VA2063-6JP46-0AA0 | | | 3VA2063-7JP46-0AA0 | | | 3VA2063-8JP46-0AA0 | |
| 100 | | 3VA2010-6JP46-0AA0 | | | 3VA2010-7JP46-0AA0 | | | 3VA2010-8JP46-0AA0 | |
| 25 | | 3VA2125-6JP46-0AA0 | | | 3VA2125-7JP46-0AA0 | | | 3VA2125-8JP46-0AA0 | |
| 40 | | 3VA2140-6JP46-0AA0 | | | 3VA2140-7JP46-0AA0 | | | 3VA2140-8JP46-0AA0 | |
| 63 | | 3VA2163-6JP46-0AA0 | | | 3VA2163-7JP46-0AA0 | | | 3VA2163-8JP46-0AA0 | |
| 100 | | 3VA2110-6JP46-0AA0 | | | 3VA2110-7JP46-0AA0 | | | 3VA2110-8JP46-0AA0 | |
| 160 | | 3VA2116-6JP46-0AA0 | | | 3VA2116-7JP46-0AA0 | | | 3VA2116-8JP46-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6JP42-0AA0 | | | 3VA2025-7JP42-0AA0 | | | 3VA2025-8JP42-0AA0 | |
| 40 | | 3VA2040-6JP42-0AA0 | | | 3VA2040-7JP42-0AA0 | | | 3VA2040-8JP42-0AA0 | |
| 63 | | 3VA2063-6JP42-0AA0 | | | 3VA2063-7JP42-0AA0 | | | 3VA2063-8JP42-0AA0 | |
| 100 | | 3VA2010-6JP42-0AA0 | | | 3VA2010-7JP42-0AA0 | | | 3VA2010-8JP42-0AA0 | |
| 25 | | 3VA2125-6JP42-0AA0 | | | 3VA2125-7JP42-0AA0 | | | 3VA2125-8JP42-0AA0 | |
| 40 | | 3VA2140-6JP42-0AA0 | | | 3VA2140-7JP42-0AA0 | | | 3VA2140-8JP42-0AA0 | |
| 63 | | 3VA2163-6JP42-0AA0 | | | 3VA2163-7JP42-0AA0 | | | 3VA2163-8JP42-0AA0 | |
| 100 | | 3VA2110-6JP42-0AA0 | | | 3VA2110-7JP42-0AA0 | | | 3VA2110-8JP42-0AA0 | |
| 160 | | 3VA2116-6JP42-0AA0 | | | 3VA2116-7JP42-0AA0 | | | 3VA2116-8JP42-0AA0 | |
| 160 | | 3VA2216-6JP42-0AA0 | | | 3VA2216-7JP42-0AA0 | | | 3VA2216-8JP42-0AA0 | |
| 250 | | 3VA2225-6JP42-0AA0 | | | 3VA2225-7JP42-0AA0 | | | 3VA2225-8JP42-0AA0 | |
| 250 | | 3VA2325-6JP42-0AA0 | | | 3VA2325-7JP42-0AA0 | | | 3VA2325-8JP42-0AA0 | |
| 400 | | 3VA2340-6JP42-0AA0 | | | 3VA2340-7JP42-0AA0 | | | 3VA2340-8JP42-0AA0 | |
| 400 | | 3VA2440-6JP42-0AA0 | | | 3VA2440-7JP42-0AA0 | | | 3VA2440-8JP42-0AA0 | |
| 500 | | 3VA2450-6JP42-0AA0 | | | 3VA2450-7JP42-0AA0 | | | -- | |
| 630 | | 3VA2463-6JP42-0AA0 | | | 3VA2463-7JP42-0AA0 | | | 3VA2463-8JP42-0AA0 | |
| ***Line and generator protection, with display, ETU560 LSIG*** With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % and adjustable ground-fault protection $I_g$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6JQ46-0AA0 | | | 3VA2025-7JQ46-0AA0 | | | 3VA2025-8JQ46-0AA0 | |
| 40 | | 3VA2040-6JQ46-0AA0 | | | 3VA2040-7JQ46-0AA0 | | | 3VA2040-8JQ46-0AA0 | |
| 63 | | 3VA2063-6JQ46-0AA0 | | | 3VA2063-7JQ46-0AA0 | | | 3VA2063-8JQ46-0AA0 | |
| 100 | | 3VA2010-6JQ46-0AA0 | | | 3VA2010-7JQ46-0AA0 | | | 3VA2010-8JQ46-0AA0 | |
| 25 | | 3VA2125-6JQ46-0AA0 | | | 3VA2125-7JQ46-0AA0 | | | 3VA2125-8JQ46-0AA0 | |
| 40 | | 3VA2140-6JQ46-0AA0 | | | 3VA2140-7JQ46-0AA0 | | | 3VA2140-8JQ46-0AA0 | |
| 63 | | 3VA2163-6JQ46-0AA0 | | | 3VA2163-7JQ46-0AA0 | | | 3VA2163-8JQ46-0AA0 | |
| 100 | | 3VA2110-6JQ46-0AA0 | | | 3VA2110-7JQ46-0AA0 | | | 3VA2110-8JQ46-0AA0 | |
| 160 | | 3VA2116-6JQ46-0AA0 | | | 3VA2116-7JQ46-0AA0 | | | 3VA2116-8JQ46-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6JQ42-0AA0 | | | 3VA2025-7JQ42-0AA0 | | | 3VA2025-8JQ42-0AA0 | |
| 40 | | 3VA2040-6JQ42-0AA0 | | | 3VA2040-7JQ42-0AA0 | | | 3VA2040-8JQ42-0AA0 | |
| 63 | | 3VA2063-6JQ42-0AA0 | | | 3VA2063-7JQ42-0AA0 | | | 3VA2063-8JQ42-0AA0 | |
| 100 | | 3VA2010-6JQ42-0AA0 | | | 3VA2010-7JQ42-0AA0 | | | 3VA2010-8JQ42-0AA0 | |
| 25 | | 3VA2125-6JQ42-0AA0 | | | 3VA2125-7JQ42-0AA0 | | | 3VA2125-8JQ42-0AA0 | |
| 40 | | 3VA2140-6JQ42-0AA0 | | | 3VA2140-7JQ42-0AA0 | | | 3VA2140-8JQ42-0AA0 | |
| 63 | | 3VA2163-6JQ42-0AA0 | | | 3VA2163-7JQ42-0AA0 | | | 3VA2163-8JQ42-0AA0 | |
| 100 | | 3VA2110-6JQ42-0AA0 | | | 3VA2110-7JQ42-0AA0 | | | 3VA2110-8JQ42-0AA0 | |
| 160 | | 3VA2116-6JQ42-0AA0 | | | 3VA2116-7JQ42-0AA0 | | | 3VA2116-8JQ42-0AA0 | |
| 160 | | 3VA2216-6JQ42-0AA0 | | | 3VA2216-7JQ42-0AA0 | | | 3VA2216-8JQ42-0AA0 | |
| 250 | | 3VA2225-6JQ42-0AA0 | | | 3VA2225-7JQ42-0AA0 | | | 3VA2225-8JQ42-0AA0 | |
| 250 | | 3VA2325-6JQ42-0AA0 | | | 3VA2325-7JQ42-0AA0 | | | 3VA2325-8JQ42-0AA0 | |
| 400 | | 3VA2340-6JQ42-0AA0 | | | 3VA2340-7JQ42-0AA0 | | | 3VA2340-8JQ42-0AA0 | |
| 400 | | 3VA2440-6JQ42-0AA0 | | | 3VA2440-7JQ42-0AA0 | | | 3VA2440-8JQ42-0AA0 | |
| 500 | | 3VA2450-6JQ42-0AA0 | | | 3VA2450-7JQ42-0AA0 | | | -- | |
| 630 | | 3VA2463-6JQ42-0AA0 | | | 3VA2463-7JQ42-0AA0 | | | 3VA2463-8JQ42-0AA0 | |

3

*** You can order this quantity or a multiple thereof.**

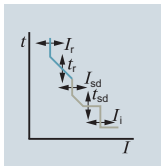
## Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | | |

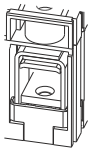
### 4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
### Electronic trip unit


I201_18482



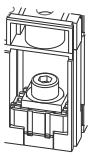

***Line and generator protection, with display, with metering function, ETU850 LSI***

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 %



**Connection with box terminal**

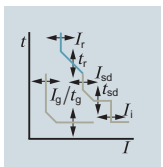
| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5KP46-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5KP46-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5KP46-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5KP46-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5KP46-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5KP46-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5KP46-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5KP46-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5KP46-0AA0 |



**Connection with lug terminal**

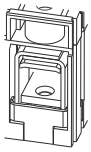
| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5KP42-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5KP42-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5KP42-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5KP42-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5KP42-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5KP42-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5KP42-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5KP42-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5KP42-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1920 | 3VA2216-5KP42-0AA0 |
| | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 2500 | 3VA2225-5KP42-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 3000 | 3VA2325-5KP42-0AA0 |
| | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 4000 | 3VA2340-5KP42-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 6000[1)] | 3VA2440-5KP42-0AA0 |
| | 500 | 200 ... 500 | 300 ... 5000 | 750 ... 7000 | 3VA2450-5KP42-0AA0 |
| | 630 | 250 ... 630 | 378 ... 5670 | 945 ... 5670 | 3VA2463-5KP42-0AA0 |


I201_18483



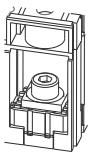

***Line and generator protection, with display, with metering function, ETU860 LSIG***

With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % and adjustable ground-fault protection $I_g$



**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5KQ46-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5KQ46-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5KQ46-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5KQ46-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5KQ46-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5KQ46-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5KQ46-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5KQ46-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5KQ46-0AA0 |



**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA20 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2025-5KQ42-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2040-5KQ42-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2063-5KQ42-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2010-5KQ42-0AA0 |
| 3VA21 | 25 | 10 ... 25 | 15 ... 250 | 38 ... 300 | 3VA2125-5KQ42-0AA0 |
| | 40 | 16 ... 40 | 24 ... 400 | 60 ... 480 | 3VA2140-5KQ42-0AA0 |
| | 63 | 25 ... 63 | 38 ... 630 | 95 ... 756 | 3VA2163-5KQ42-0AA0 |
| | 100 | 40 ... 100 | 60 ... 1000 | 150 ... 1200 | 3VA2110-5KQ42-0AA0 |
| | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1600 | 3VA2116-5KQ42-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 96 ... 1600 | 240 ... 1920 | 3VA2216-5KQ42-0AA0 |
| | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 2500 | 3VA2225-5KQ42-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 150 ... 2500 | 375 ... 3000 | 3VA2325-5KQ42-0AA0 |
| | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 4000 | 3VA2340-5KQ42-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 240 ... 4000 | 600 ... 6000[1)] | 3VA2440-5KQ42-0AA0 |
| | 500 | 200 ... 500 | 300 ... 5000 | 750 ... 7000 | 3VA2450-5KQ42-0AA0 |
| | 630 | 250 ... 630 | 378 ... 5670 | 945 ... 5670 | 3VA2463-5KQ42-0AA0 |

[1)] At breaking capacity L 4400 A



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU | DT | $I_{cu}$ up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | |
| ***Line and generator protection, with display, with metering function, ETU850 LSI*** With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6KP46-0AA0 | | | 3VA2025-7KP46-0AA0 | | | 3VA2025-8KP46-0AA0 | |
| 40 | | 3VA2040-6KP46-0AA0 | | | 3VA2040-7KP46-0AA0 | | | 3VA2040-8KP46-0AA0 | |
| 63 | | 3VA2063-6KP46-0AA0 | | | 3VA2063-7KP46-0AA0 | | | 3VA2063-8KP46-0AA0 | |
| 100 | | 3VA2010-6KP46-0AA0 | | | 3VA2010-7KP46-0AA0 | | | 3VA2010-8KP46-0AA0 | |
| 25 | | 3VA2125-6KP46-0AA0 | | | 3VA2125-7KP46-0AA0 | | | 3VA2125-8KP46-0AA0 | |
| 40 | | 3VA2140-6KP46-0AA0 | | | 3VA2140-7KP46-0AA0 | | | 3VA2140-8KP46-0AA0 | |
| 63 | | 3VA2163-6KP46-0AA0 | | | 3VA2163-7KP46-0AA0 | | | 3VA2163-8KP46-0AA0 | |
| 100 | | 3VA2110-6KP46-0AA0 | | | 3VA2110-7KP46-0AA0 | | | 3VA2110-8KP46-0AA0 | |
| 160 | | 3VA2116-6KP46-0AA0 | | | 3VA2116-7KP46-0AA0 | | | 3VA2116-8KP46-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6KP42-0AA0 | | | 3VA2025-7KP42-0AA0 | | | 3VA2025-8KP42-0AA0 | |
| 40 | | 3VA2040-6KP42-0AA0 | | | 3VA2040-7KP42-0AA0 | | | 3VA2040-8KP42-0AA0 | |
| 63 | | 3VA2063-6KP42-0AA0 | | | 3VA2063-7KP42-0AA0 | | | 3VA2063-8KP42-0AA0 | |
| 100 | | 3VA2010-6KP42-0AA0 | | | 3VA2010-7KP42-0AA0 | | | 3VA2010-8KP42-0AA0 | |
| 25 | | 3VA2125-6KP42-0AA0 | | | 3VA2125-7KP42-0AA0 | | | 3VA2125-8KP42-0AA0 | |
| 40 | | 3VA2140-6KP42-0AA0 | | | 3VA2140-7KP42-0AA0 | | | 3VA2140-8KP42-0AA0 | |
| 63 | | 3VA2163-6KP42-0AA0 | | | 3VA2163-7KP42-0AA0 | | | 3VA2163-8KP42-0AA0 | |
| 100 | | 3VA2110-6KP42-0AA0 | | | 3VA2110-7KP42-0AA0 | | | 3VA2110-8KP42-0AA0 | |
| 160 | | 3VA2116-6KP42-0AA0 | | | 3VA2116-7KP42-0AA0 | | | 3VA2116-8KP42-0AA0 | |
| 160 | | 3VA2216-6KP42-0AA0 | | | 3VA2216-7KP42-0AA0 | | | 3VA2216-8KP42-0AA0 | |
| 250 | | 3VA2225-6KP42-0AA0 | | | 3VA2225-7KP42-0AA0 | | | 3VA2225-8KP42-0AA0 | |
| 250 | | 3VA2325-6KP42-0AA0 | | | 3VA2325-7KP42-0AA0 | | | 3VA2325-8KP42-0AA0 | |
| 400 | | 3VA2340-6KP42-0AA0 | | | 3VA2340-7KP42-0AA0 | | | 3VA2340-8KP42-0AA0 | |
| 400 | | 3VA2440-6KP42-0AA0 | | | 3VA2440-7KP42-0AA0 | | | 3VA2440-8KP42-0AA0 | |
| 500 | | 3VA2450-6KP42-0AA0 | | | 3VA2450-7KP42-0AA0 | | | -- | |
| 630 | | 3VA2463-6KP42-0AA0 | | | 3VA2463-7KP42-0AA0 | | | 3VA2463-8KP42-0AA0 | |
| ***Line and generator protection, with display, with metering function, ETU860 LSIG*** With adjustable overload protection $I_r$, adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % and adjustable ground-fault protection $I_g$ | | | | | | | | | |
| | | **Connection with box terminal** | | | | | | | |
| 25 | | 3VA2025-6KQ46-0AA0 | | | 3VA2025-7KQ46-0AA0 | | | 3VA2025-8KQ46-0AA0 | |
| 40 | | 3VA2040-6KQ46-0AA0 | | | 3VA2040-7KQ46-0AA0 | | | 3VA2040-8KQ46-0AA0 | |
| 63 | | 3VA2063-6KQ46-0AA0 | | | 3VA2063-7KQ46-0AA0 | | | 3VA2063-8KQ46-0AA0 | |
| 100 | | 3VA2010-6KQ46-0AA0 | | | 3VA2010-7KQ46-0AA0 | | | 3VA2010-8KQ46-0AA0 | |
| 25 | | 3VA2125-6KQ46-0AA0 | | | 3VA2125-7KQ46-0AA0 | | | 3VA2125-8KQ46-0AA0 | |
| 40 | | 3VA2140-6KQ46-0AA0 | | | 3VA2140-7KQ46-0AA0 | | | 3VA2140-8KQ46-0AA0 | |
| 63 | | 3VA2163-6KQ46-0AA0 | | | 3VA2163-7KQ46-0AA0 | | | 3VA2163-8KQ46-0AA0 | |
| 100 | | 3VA2110-6KQ46-0AA0 | | | 3VA2110-7KQ46-0AA0 | | | 3VA2110-8KQ46-0AA0 | |
| 160 | | 3VA2116-6KQ46-0AA0 | | | 3VA2116-7KQ46-0AA0 | | | 3VA2116-8KQ46-0AA0 | |
| | | **Connection with lug terminal** | | | | | | | |
| 25 | | 3VA2025-6KQ42-0AA0 | | | 3VA2025-7KQ42-0AA0 | | | 3VA2025-8KQ42-0AA0 | |
| 40 | | 3VA2040-6KQ42-0AA0 | | | 3VA2040-7KQ42-0AA0 | | | 3VA2040-8KQ42-0AA0 | |
| 63 | | 3VA2063-6KQ42-0AA0 | | | 3VA2063-7KQ42-0AA0 | | | 3VA2063-8KQ42-0AA0 | |
| 100 | | 3VA2010-6KQ42-0AA0 | | | 3VA2010-7KQ42-0AA0 | | | 3VA2010-8KQ42-0AA0 | |
| 25 | | 3VA2125-6KQ42-0AA0 | | | 3VA2125-7KQ42-0AA0 | | | 3VA2125-8KQ42-0AA0 | |
| 40 | | 3VA2140-6KQ42-0AA0 | | | 3VA2140-7KQ42-0AA0 | | | 3VA2140-8KQ42-0AA0 | |
| 63 | | 3VA2163-6KQ42-0AA0 | | | 3VA2163-7KQ42-0AA0 | | | 3VA2163-8KQ42-0AA0 | |
| 100 | | 3VA2110-6KQ42-0AA0 | | | 3VA2110-7KQ42-0AA0 | | | 3VA2110-8KQ42-0AA0 | |
| 160 | | 3VA2116-6KQ42-0AA0 | | | 3VA2116-7KQ42-0AA0 | | | 3VA2116-8KQ42-0AA0 | |
| 160 | | 3VA2216-6KQ42-0AA0 | | | 3VA2216-7KQ42-0AA0 | | | 3VA2216-8KQ42-0AA0 | |
| 250 | | 3VA2225-6KQ42-0AA0 | | | 3VA2225-7KQ42-0AA0 | | | 3VA2225-8KQ42-0AA0 | |
| 250 | | 3VA2325-6KQ42-0AA0 | | | 3VA2325-7KQ42-0AA0 | | | 3VA2325-8KQ42-0AA0 | |
| 400 | | 3VA2340-6KQ42-0AA0 | | | 3VA2340-7KQ42-0AA0 | | | 3VA2340-8KQ42-0AA0 | |
| 400 | | 3VA2440-6KQ42-0AA0 | | | 3VA2440-7KQ42-0AA0 | | | 3VA2440-8KQ42-0AA0 | |
| 500 | | 3VA2450-6KQ42-0AA0 | | | 3VA2450-7KQ42-0AA0 | | | -- | |
| 630 | | 3VA2463-6KQ42-0AA0 | | | 3VA2463-7KQ42-0AA0 | | | 3VA2463-8KQ42-0AA0 | |

3

* You can order this quantity or a multiple thereof.

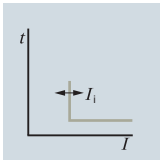
## Motor and starter protection

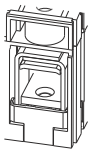
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Connection technology | Type | Rated current $I_n$ | Current setting of the inverse-time delayed overload protection "L" $I_r$ | S function (short-time delayed short-circuit protection "S") $I_{sd}$ | Operating current of the instanta-neous short-circuit protection "I" $I_i$ | DT | $I_{cu}$ up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/4 and 1/5 Article No. www.siemens.com/product?Article No. | Basic price per PU |
|---|---|---|---|---|---|---|---|---|
| | | A | A | A | A | | | |

### 3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
### Electronic trip unit

I201_18428



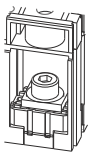



#### *Starter protection, ETU310M I*

With adjustable short-circuit protection $I_i$

**Connection with box terminal**

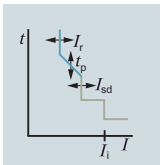
| | | | | | |
|---|---|---|---|---|---|
| 3VA21 | 25 | -- | -- | 75 ... 375 | -- |
| | 40 | -- | -- | 120 ... 600 | -- |
| | 63 | -- | -- | 189 ... 945 | -- |
| | 100 | -- | -- | 300 ... 1500 | -- |

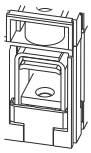


**Connection with lug terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA21 | 25 | -- | -- | 75 ... 375 | -- |
| | 40 | -- | -- | 120 ... 600 | -- |
| | 63 | -- | -- | 189 ... 945 | -- |
| | 100 | -- | -- | 300 ... 1500 | -- |
| 3VA22 | 160 | -- | -- | 480 ... 2400 | -- |
| | 200 | -- | -- | 600 ... 3000 | -- |
| 3VA23 | 250 | -- | -- | 750 ... 3750 | -- |
| 3VA24 | 400 | -- | -- | 1200 ... 6000 | -- |
| | 500 | -- | -- | 1500 ... 7500 | -- |

I201_18429



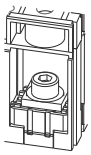
#### *Motor protection, ETU350M LSI*

With adjustable overload protection $I_r$, (delay adjustable via trip class $T_C$ (10A, 10/10E, 20/20E), adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$

$I_r$ x ...

**Connection with box terminal**

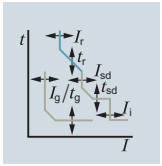
| | | | | | |
|---|---|---|---|---|---|
| 3VA21 | 25 | 10 ... 25 | 3 ... 15 | 375 | 3VA2125-5MN36-0AA0 |
| | 40 | 16 ... 40 | 3 ... 15 | 600 | 3VA2140-5MN36-0AA0 |
| | 63 | 25 ... 63 | 3 ... 15 | 945 | 3VA2163-5MN36-0AA0 |
| | 100 | 40 ... 100 | 3 ... 15 | 1500 | 3VA2110-5MN36-0AA0 |

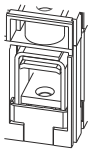


**Connection with screw terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA21 | 25 | 10 ... 25 | 3 ... 15 | 375 | 3VA2125-5MN32-0AA0 |
| | 40 | 16 ... 40 | 3 ... 15 | 600 | 3VA2140-5MN32-0AA0 |
| | 63 | 25 ... 63 | 3 ... 15 | 945 | 3VA2163-5MN32-0AA0 |
| | 100 | 40 ... 100 | 3 ... 15 | 1500 | 3VA2110-5MN32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 3 ... 15 | 2400 | 3VA2216-5MN32-0AA0 |
| | 200 | 80 ... 200 | 3 ... 15 | 3000 | 3VA2220-5MN32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 3 ... 15 | 3750 | 3VA2325-5MN32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 3 ... 15 | 6000 | 3VA2440-5MN32-0AA0 |
| | 500 | 200 ... 500 | 3 ... 15 | 7500 | 3VA2450-5MN32-0AA0 |

I201_18484



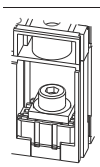



#### *Motor protection, with display, with metering function, ETU860M LSIG*

With adjustable overload protection $I_r$ (delay adjustable either via trip class $T_C$ (10A, 10/10E, 20/20E, 30/30E) or directly via $T_P$ in the range of 3 ... 30 s at 7.2 x $I$ (depending on size)), adjustable delayed short-circuit protection $I_{sd}$, and adjustable instantaneous short-circuit protection $I_i$, and fixed ground-fault protection $I_g$

**Connection with box terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA21 | 25 | 10 ... 25 | 38 ... 375 | 75 ... 375 | 3VA2125-5MQ36-0AA0 |
| | 40 | 16 ... 40 | 60 ... 600 | 120 ... 600 | 3VA2140-5MQ36-0AA0 |
| | 63 | 25 ... 63 | 95 ... 945 | 189 ... 945 | 3VA2163-5MQ36-0AA0 |
| | 100 | 40 ... 100 | 150 ... 1500 | 300 ... 1500 | 3VA2110-5MQ36-0AA0 |



**Connection with screw terminal**

| | | | | | |
|---|---|---|---|---|---|
| 3VA21 | 25 | 10 ... 25 | 30 ... 375 | 75 ... 375 | 3VA2125-5MQ32-0AA0 |
| | 40 | 16 ... 40 | 48 ... 600 | 120 ... 600 | 3VA2140-5MQ32-0AA0 |
| | 63 | 25 ... 63 | 76 ... 945 | 189 ... 945 | 3VA2163-5MQ32-0AA0 |
| | 100 | 40 ... 100 | 120 ... 1500 | 300 ... 1500 | 3VA2110-5MQ32-0AA0 |
| 3VA22 | 160 | 63 ... 160 | 192 ... 2400 | 480 ... 2400 | 3VA2216-5MQ32-0AA0 |
| | 200 | 80 ... 200 | 240 ... 3000 | 600 ... 3000 | 3VA2220-5MQ32-0AA0 |
| 3VA23 | 250 | 100 ... 250 | 300 ... 3750 | 750 ... 3750 | 3VA2325-5MQ32-0AA0 |
| 3VA24 | 400 | 160 ... 400 | 480 ... 6000 | 1200 ... 6000 | 3VA2440-5MQ32-0AA0 |
| | 500 | 200 ... 500 | 600 ... 7500 | 1500 ... 7500 | 3VA2450-5MQ32-0AA0 |



* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 unit PG = 1CB

| Rated current $I_n$ | DT | $I_{cu}$ up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/4 and 1/5 | | DT | $I_{cu}$ up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/4 and 1/5 | |
|---|---|---|---|---|---|---|
| | | Article No. www.siemens.com/product?Article No. | Basic price per PU | | Article No. www.siemens.com/product?Article No. | Basic price per PU |
| A | | | | | | |
| ***Starter protection, ETU310M I*** With adjustable short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | **Connection with box terminal** | |
| 25 | | -- | | | 3VA2125-7MS36-0AA0 | |
| 40 | | -- | | | 3VA2140-7MS36-0AA0 | |
| 63 | | -- | | | 3VA2163-7MS36-0AA0 | |
| 100 | | -- | | | 3VA2110-7MS36-0AA0 | |
| | | **Connection with lug terminal** | | | **Connection with lug terminal** | |
| 25 | | -- | | | 3VA2125-7MS32-0AA0 | |
| 40 | | -- | | | 3VA2140-7MS32-0AA0 | |
| 63 | | -- | | | 3VA2163-7MS32-0AA0 | |
| 100 | | -- | | | 3VA2110-7MS32-0AA0 | |
| 160 | | -- | | | 3VA2216-7MS32-0AA0 | |
| 200 | | -- | | | 3VA22 20-7MS32-0AA0 | |
| 250 | | -- | | | 3VA2325-7MS32-0AA0 | |
| 400 | | -- | | | 3VA2440-7MS32-0AA0 | |
| 500 | | -- | | | 3VA2450-7MS32-0AA0 | |
| ***Motor protection, ETU350M LSI*** With adjustable overload protection $I_r$, (delay adjustable via trip class $T_C$ (10A, 10/10E, 20/20E), adjustable delayed short-circuit protection $I_{sd}$ and fixed instantaneous short-circuit protection $I_i$ | | | | | | |
| | | **Connection with box terminal** | | | **Connection with box terminal** | |
| 25 | | -- | | | 3VA2125-7MN36-0AA0 | |
| 40 | | -- | | | 3VA2140-7MN36-0AA0 | |
| 63 | | -- | | | 3VA2163-7MN36-0AA0 | |
| 100 | | -- | | | 3VA2110-7MN36-0AA0 | |
| | | **Connection with lug terminal** | | | **Connection with lug terminal** | |
| 25 | | -- | | | 3VA2125-7MN32-0AA0 | |
| 40 | | -- | | | 3VA2140-7MN32-0AA0 | |
| 63 | | -- | | | 3VA2163-7MN32-0AA0 | |
| 100 | | -- | | | 3VA2110-7MN32-0AA0 | |
| 160 | | -- | | | 3VA2216-7MN32-0AA0 | |
| 200 | | -- | | | 3VA2220-7MN32-0AA0 | |
| 250 | | -- | | | 3VA2325-7MN32-0AA0 | |
| 400 | | -- | | | 3VA2440-7MN32-0AA0 | |
| 500 | | -- | | | 3VA2450-7MN32-0AA0 | |
| ***Motor protection, with display, with metering function, ETU860M LSIG*** With adjustable overload protection $I_r$ (delay adjustable either via trip class $T_C$ (10A, 10/10E, 20/20E, 30/30E) or directly via $T_P$ in the range of 3 ... 30 s at 7.2 x $I$ (depending on size)), adjustable delayed short-circuit protection $I_{sd}$, and adjustable instantaneous short-circuit protection $I_i$, and fixed ground-fault protection $I_g$ | | | | | | |
| | | **Connection with box terminal** | | | **Connection with box terminal** | |
| 25 | | -- | | | 3VA2125-7MQ36-0AA0 | |
| 40 | | -- | | | 3VA2140-7MQ36-0AA0 | |
| 63 | | -- | | | 3VA2163-7MQ36-0AA0 | |
| 100 | | -- | | | 3VA2110-7MQ36-0AA0 | |
| | | **Connection with lug terminal** | | | **Connection with lug terminal** | |
| 25 | | -- | | | 3VA2125-7MQ32-0AA0 | |
| 40 | | -- | | | 3VA2140-7MQ32-0AA0 | |
| 63 | | -- | | | 3VA2163-7MQ32-0AA0 | |
| 100 | | -- | | | 3VA2110-7MQ32-0AA0 | |
| 160 | | -- | | | 3VA2216-7MQ32-0AA0 | |
| 200 | | -- | | | 3VA2220-7MQ32-0AA0 | |
| 250 | | -- | | | 3VA2325-7MQ32-0AA0 | |
| 400 | | -- | | | 3VA2440-7MQ32-0AA0 | |
| 500 | | -- | | | 3VA2450-7MQ32-0AA0 | |

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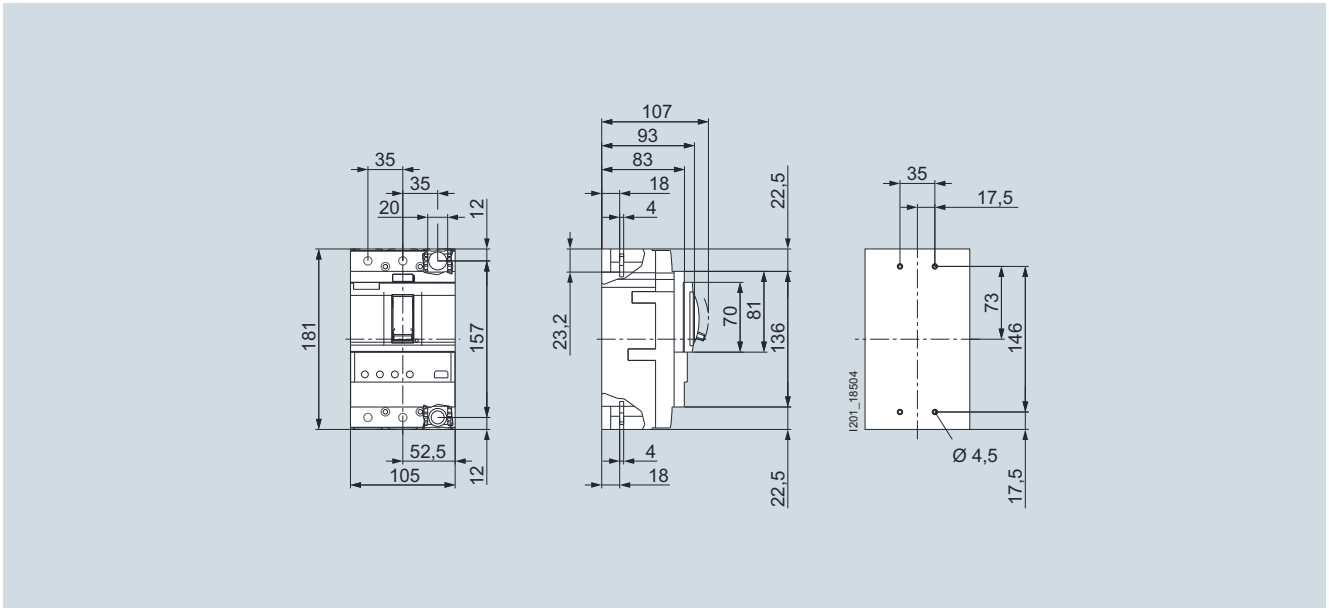
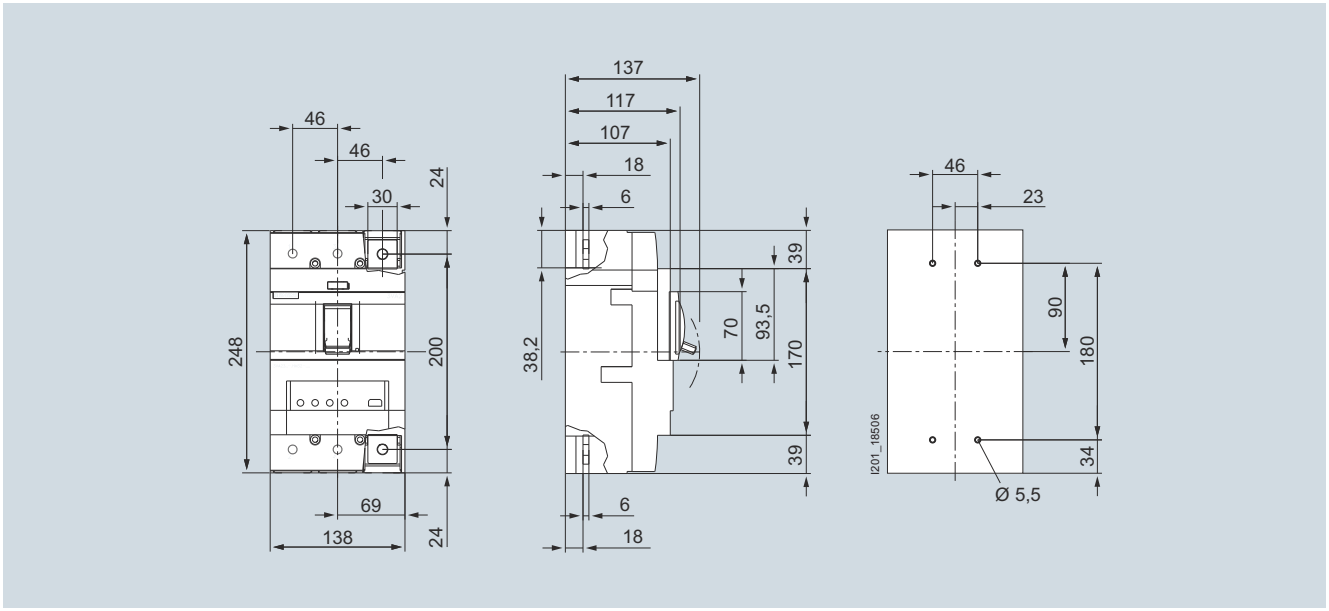
*** You can order this quantity or a multiple thereof.**

## Dimensional drawings

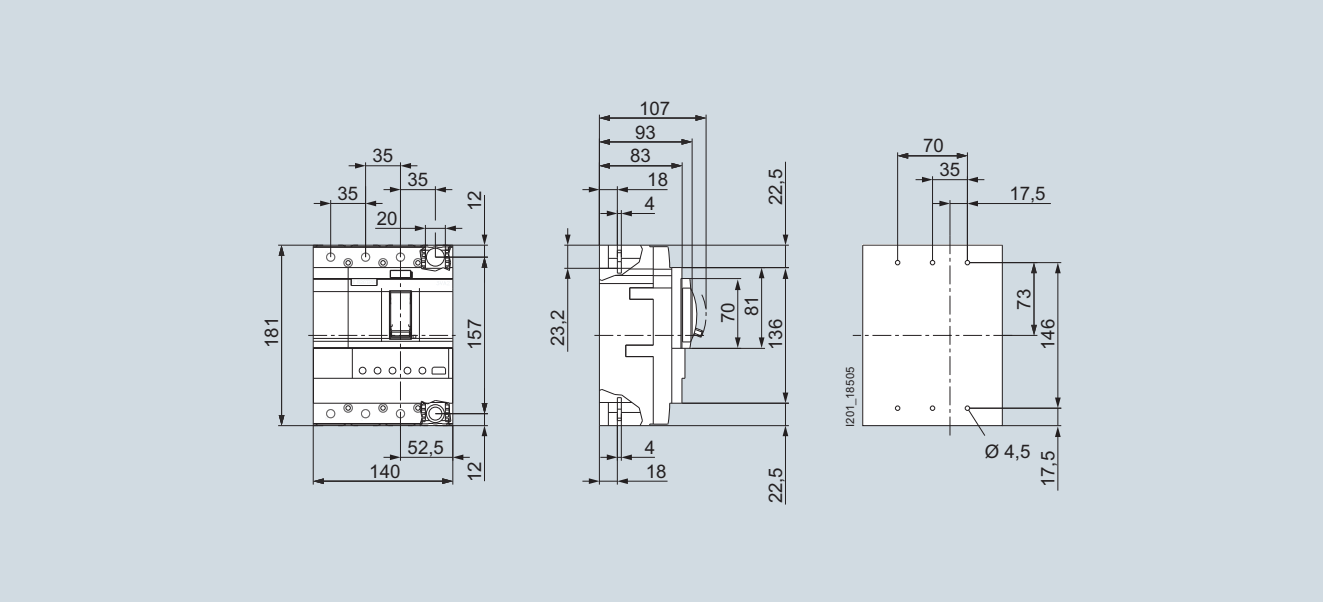
### Overview



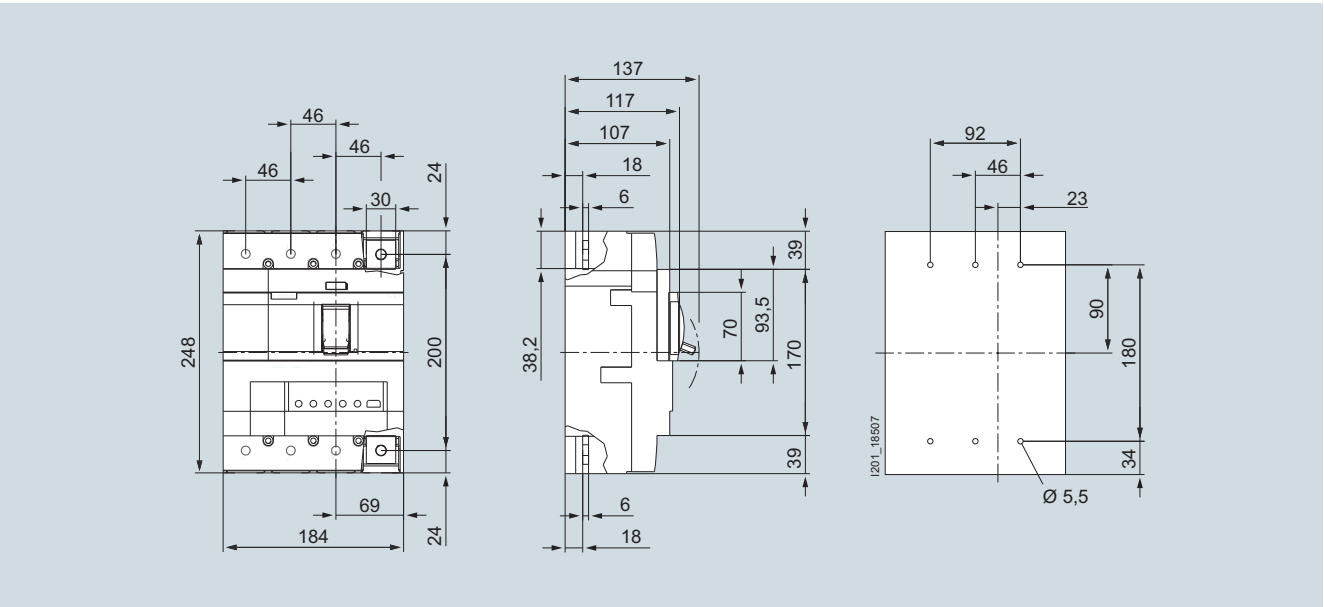

3VA20, 3VA21 and 3VA22, 3-pole




3VA23 and 3VA24, 3-pole




3VA20, 3VA21 and 3VA22, 4-pole




3VA23 and 3VA24, 4-pole

Further dimensional drawings can be found in the image database at: www.siemens.com/lowvoltage/picturedb

## Notes






**NEW**

Direct reference to the products in the Industry Mall from the selection and ordering data tables:

Article No.
www.siemens.com/product?Article No.
3KD2832-0NE10-0

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## Overview

### *Auxiliary switches*

All auxiliary and alarm switches for the 3VA molded case circuit breakers and switch disconnectors belong to an integrated range of accessories. The auxiliary switches can be simply snapped into place and connected up in the accessories compartment provided on the front face of the unit to the left and right of the handle.

The purpose of the auxiliary switches AUX is to signal the position of the main contacts of the molded case circuit breaker. The contacts of the auxiliary switches open and close simultaneously with the main contacts of the molded case circuit breaker.

Leading changeover switches LCS signal the opening of the main contacts with a lead time of 20 ms in advance of the circuit breaker trips and are used for load shedding, for example.

Trip alarm switches TAS signal every circuit breaker tripping operation, regardless of the cause of the trip. The trip alarm switches are actuated whenever the molded case circuit breaker switches to the TRIP position.

Electrical alarm switches EAS are actuated as soon as the main contacts of the molded case circuit breaker open in the event that the breaker is tripped by the ETU.

Special electronic-compatible variants are available for applications which require the auxiliary switch signals to be linked to automation systems.

### *Auxiliary releases*

Auxiliary releases allow remote electrical tripping of the circuit breaker. They can be used to monitor control or main circuits in order to implement a protective system against accidental restart following a power failure, for example.

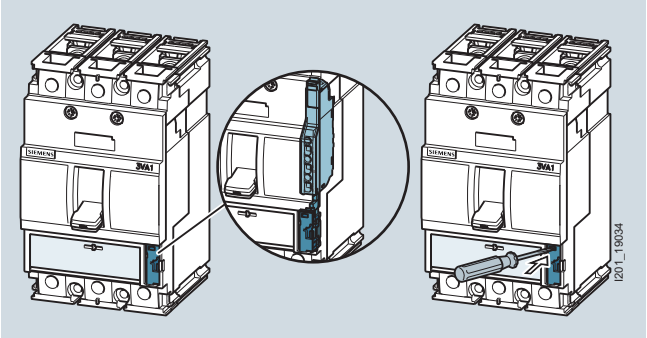
Undervoltage releases trip the 3VA molded case circuit breaker in the event that the rated voltage of a monitored circuit drops below a minimum permissible limit or fails altogether. The UVR (LNO) with its integrated leading NO contacts permits the control circuit to be safely isolated. It is therefore especially suitable for integration in the EMERGENCY-STOP circuit of a 3VA molded case circuit breaker. Safe disconnection of the main current paths and safe isolation of the EMERGENCY-STOP circuit requires the molded case circuit breaker to be switched OFF.

Shunt trips can be used to trip the 3VA molded case circuit breaker remotely. The STF variant can be mounted in either the left-hand or the right-hand accessories compartment. The STL and STL (EI) types are specifically designed for mounting in the left-hand compartment and are very low-consumption devices. The STL (EI) variant can be used to implement electrical interlocks between molded case circuit breakers.

A universal release is a single, 21 mm wide component in which a shunt trip and an undervoltage release are combined. These are subject to the same tripping conditions as the individual devices.

### *Short circuit alarm switches SAS*

Short circuit alarm switches signal tripping operations only if they have been initiated by a short circuit. Tripping due to a short circuit is also indicated on the molded case circuit breaker.




The tripping operation must be reset by deliberate acknowledgement of the fault before the molded case circuit breaker can be switched to ON again.

Note

Short circuit alarm switches are only compatible with 3VA1 molded case circuit breakers. On breakers equipped with electronic trip units, the short circuit alarm function is performed by the electronic trip unit (ETU) and the EFB external function box.

## Benefits

- The internal accessories are extremely easy to install. No tools are required because they are simply snapped into place in the accessories compartments to the left and right of the handle.
- The accessories are connected by screw terminals for auxiliary conductors with a cross-section of up to 2.5 $mm^2$. The terminals are mounted on the front of the unit for easy access.
- All auxiliary and alarm switches are designed as changeover contacts and therefore provide a high degree of flexibility for planning and installation purposes.
- Slimline auxiliary and alarm switches HQ and double-width auxiliary and alarm switches HP are suitable for use in applications involving diverse types of signaling contact and with high continuous currents.
- With two conductors per contact point for the auxiliary and alarm switches HP, looping through is extremely easy.
- Symbols engraved in the lid of the accessories compartment indicate the possible mounting positions of the internal accessories.

### *3VA with internal accessories pre-assembled at the factory*

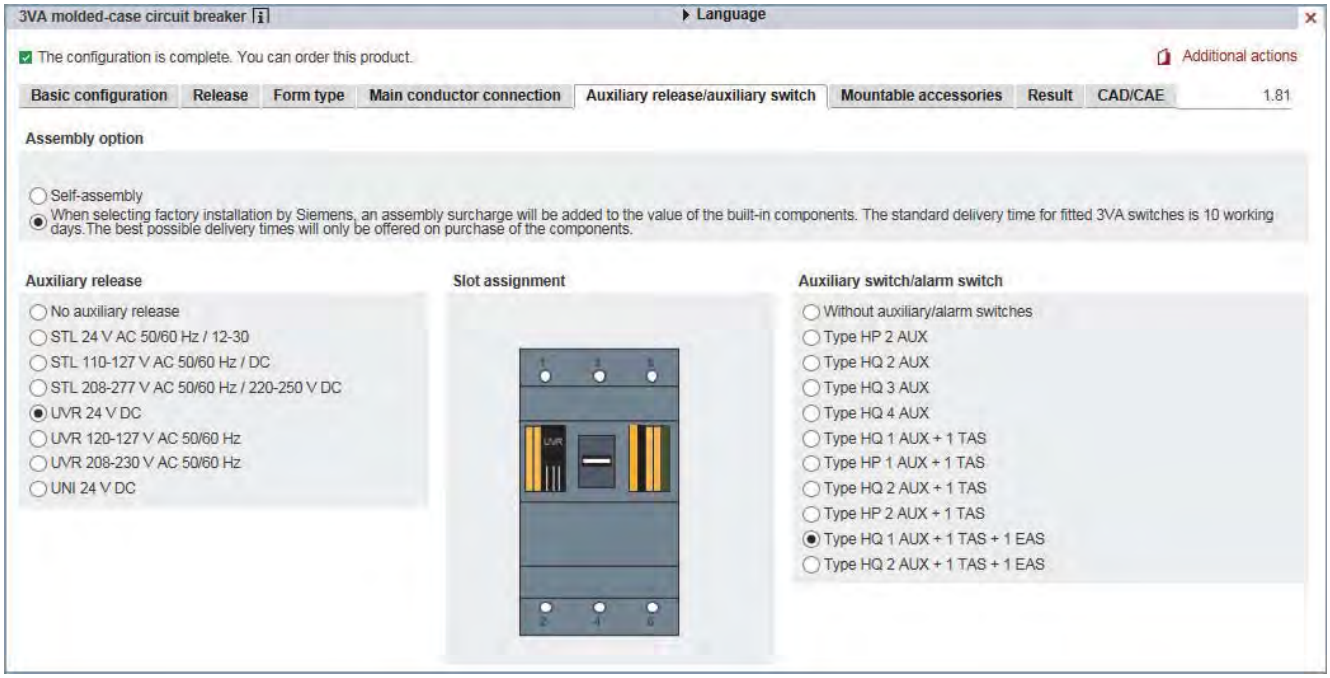
The basic circuit breakers with -0AA0 at the end of the article number are supplied without installed internal accessories.

Due to the high number of different internal accessory components available and the associated flexibility of use, it is not possible to represent all options with an article number for circuit breakers and installed internal accessories.

However, it is possible to order a basic circuit breaker with predefined combinations of internal accessories that are installed at the factory. This concerns a selection of different auxiliary releases and auxiliary/alarm switch combinations especially for each basic circuit breaker type.

In the case of factory installation, an installation surcharge is levied for the installed internal accessories.

The normal delivery time for equipped 3VA breakers is 10 working days. The best possible delivery times are only achieved when the individual components are ordered.



## Design

| Internal accessories<br>Optional equipment | | 3VA1<br>160 A<br>2-pole | 3VA1<br>100 A<br>3- and 4-pole | 3VA1<br>160 A<br>3- and 4-pole | 3VA1<br>250 A<br>3- and 4-pole |
|---|---|---|---|---|---|
| **Slot No.:** | | 160 A<br>23 22 21 | 100 A<br>23 22 21 11 12 13 | 160 A<br>23 22 21 11 12 13 | 250 A<br>24 23 22 21 11 12 13 14 |
| **Auxiliary switch** | **Type** | | | | |
| Auxiliary switch | AUX_HQ | x x x | x x x x x x | x x x x x x | x x x x x x x x |
| | AUX_HQ_el | x x x | x x x x x x | x x x x x x | x x x x x x x x |
| | AUX_HP | x<br>x | x | x<br>x | x x<br>x |
| Leading changeover switch | LCS_HQ | | | x | x |
| | LCS_HQ_el | | | x | x |
| | LCS_HP | | | x | x |
| **Alarm switch** | **Type** | | | | |
| Trip alarm switch | TAS_HQ | x x | x x x x | x x x x | x x x x |
| | TAS_HQ_el | x x | x x x x | x x x x | x x x x |
| | TAS_HP | x | x | x<br>x | x<br>x |
| Short circuit alarm switch | SAS_HQ | | | x | x |
| | SAS_HQ_el | | | x | x |
| **Auxiliary release** | **Type** | | | | |
| Shunt trip flexible | STF | x | x | x | x |
| Shunt trip left | STL | x | x | x | x |
| | STL (EI) | x | x | x | x |
| Residual current release | RCR [1] | | x | x | x |
| Undervoltage release | UVR | x | x | x | x |
| Universal release | UNI | x | x | x | x |
| **Other** | | | | | |
| Cylinder lock (type Ronis) | | | x | x | x |

[1] Included in the scope of supply for side mounted residual current devices

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| Internal accessories<br>Optional equipment<br>Slot No.: | | 3VA2<br>100/160/250 A<br>3-pole<br>24 23 22 21 11 12 13 14 | 3VA2<br>100/160/250 A<br>4-pole<br>34 33 32 31 24 23 22 21 11 12 13 14 |
|---|---|---|---|
| **Auxiliary switch** | **Type** | | |
| Auxiliary switch | AUX_HQ | x x x x x x x x | x x x x x x x x x x x x |
| | AUX_HQ_el | x x x x x x x x | x x x x x x x x x x x x |
| | AUX_HP | x x x x | x x x x x x x x |
| | | x x | x x x x |
| Leading changeover switch | LCS_HQ | x | x |
| | LCS_HQ_el | x | x |
| | LCS_HP | x | x |
| **Alarm switch** | **Type** | | |
| Trip alarm switch | TAS_HQ | x x x x | x x x x |
| | TAS_HQ_el | x x x x | x x x x |
| | TAS_HP | x x | x x |
| Electrical alarm switch | EAS_HQ | x | x |
| | EAS_HQ_el | x | x |
| **Auxiliary release** | **Type** | | |
| Shunt trip flexible | STF | x x | x x |
| Shunt trip left | STL | x | x |
| | STL (EI) | x | x |
| Undervoltage release | UVR | x | x |
| Universal release | UNI | x | x |
| **ETU/communication** | **Type** | | |
| Breaker data server communication module | COM060 | x | x |
| 24 V module | | x | x |
| **Other** | | | |
| Cylinder lock (type Ronis) | | x | x |

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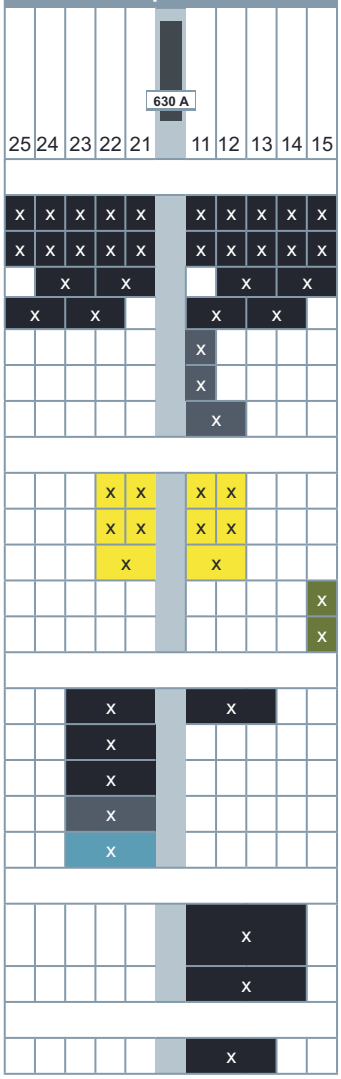
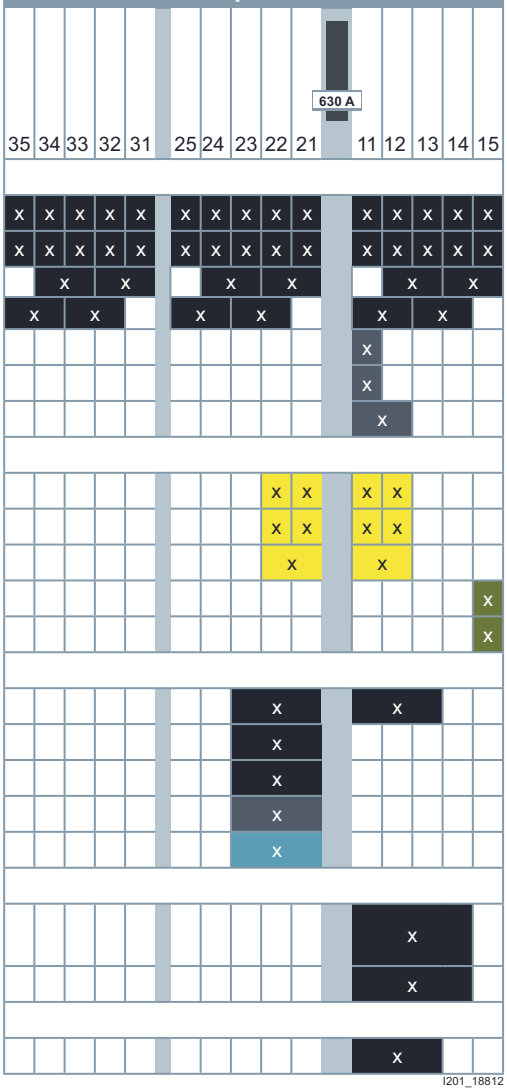
## Internal accessories

| Internal accessories<br>Optional equipment | Slot No.: | 3VA2<br>400/630 A<br>3-pole | 3VA2<br>400/630 A<br>4-pole |
|---|---|---|---|
| **Auxiliary switch** | **Type** | | |
| Auxiliary switch | AUX_HQ | | |
| | AUX_HQ_el | | |
| | AUX_HP | | |
| Leading changeover switch | LCS_HQ | | |
| | LCS_HQ_el | | |
| | LCS_HP | | |
| **Alarm switch** | **Type** | | |
| Trip alarm switch | TAS_HQ | | |
| | TAS_HQ_el | | |
| | TAS_HP | | |
| Electrical alarm switch | EAS_HQ | | |
| | EAS_HQ_el | | |
| **Auxiliary release** | **Type** | | |
| Shunt trip flexible | STF | | |
| Shunt trip left | STL | | |
| | STL (EI) | | |
| Undervoltage release | UVR | | |
| Universal release | UNI | | |
| **ETU/communication** | **Type** | | |
| Breaker data server communication module | COM060 | | |
| 24 V module | | | |
| **Other** | | | |
| Cylinder lock (type Ronis) | | | |

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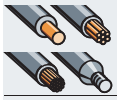
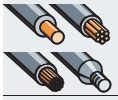
## Technical specifications

| | | | | Auxiliary switches and alarm switches HQ | Auxiliary switches and alarm switches HQ_electronic | Auxiliary switches and alarm switches HP |
|---|---|---|---|---|---|---|
| | | | |  |  |  |
| | | | | SAS AUX LCS TAS EAS | SAS AUX LCS TAS EAS | AUX LCS TAS |
| **Width** | | | mm | 7 | 7 | 14 |
| **Conductor cross-sections** | Solid, stranded and finely stranded, with end sleeve  | Screw connection (per contact) | | 1 x (0.5 - 1.5) | 1 x (0.5 - 1.5) | 2 x (0.75 - 2.5) |
| | | | | 1 x (AWG20 - AWG16) | 1 x (AWG20 - AWG16) | 2 x (AWG18 - AWG14) |
| | Finely stranded with insulated end sleeve  | Screw connection (per contact) | | 1 x (0.5 - 1.0) | 1 x (0.5 - 1.0) | 2 x (0.75 - 1.0) |
| | | | | 1 x (AWG20 - AWG16) | 1 x (AWG20 - AWG16) | 2 x (AWG18 - AWG16) |
| | Tightening torque (connection cables) | | Nm | 0.4 $^{+0.1}$ | 0.4 $^{+0.1}$ | 0.4 $^{+0.1}$ |
| | Stripped length   | | mm | 15 | 15 | 15 |
| **Rated operating voltage** | | $U_e$ | V AC 50 Hz | 240 | 24 | 600 |
| | | | V DC | 250 | 24 | 250 |
| **Conventional free-air thermal current** | | $I_{th} = I_e$ | A | 6 | 0.3 | 10 |
| **Rated operational current** | AC-12 | 12 V | A | 6 | 0.3 | 10 |
| | | 24 V | A | 6 | 0.3 | 10 |
| | | 48 V | A | 6 | -- | 10 |
| | | 125 V | A | 6 | -- | 10 |
| | | 220/240 V | A | 6 | -- | 10 |
| | | 380/440 V | A | -- | -- | 6 |
| | | 600 V | A | -- | -- | 2 |
| | AC-15 | 12 V | A | 3 | 0.3 | 6 |
| | | 24 V | A | 3 | 0.3 | 6 |
| | | 48 V | A | 3 | -- | 6 |
| | | 125 V | A | 3 | -- | 6 |
| | | 220/240 V | A | 3 | -- | 6 |
| | | 380/440 V | A | -- | -- | 2 |
| | | 600 V | A | -- | -- | 0.6 |
| | DC-12 | 12 V | A | 6 | 0.1 | 6 |
| | | 24 V | A | 4 | 0.1 | 6 |
| | | 48 V | A | 2 | -- | 2 |
| | | 110 V | A | 0.5 | -- | 0.6 |
| | | 250 V | A | 0.25 | -- | 0.3 |
| | DC-13 | 12 V | A | 1 | 0.07 | 3 |
| | | 24 V | A | 0.8 | 0.07 | 3 |
| | | 48 V | A | 0.4 | -- | 0.8 |
| | | 110 V | A | 0.2 | -- | 0.2 |
| | | 250 V | A | 0.1 | -- | 0.1 |
| **Minimum load** | | At 24 V DC | mA | 70 | 0.5 | 70 |
| | | At 5 V DC | mA | -- | 1 | -- |

## Internal accessories

| | | | | Shunt trip left STL | Shunt trip flexible STF | Undervoltage release UVR | Undervoltage release with leading NO contacts UVR (LNO) | Universal release UNI |
|---|---|---|---|---|---|---|---|---|
| | | | |  |  |  |  |  |
| **Width** | | | mm | 21 | | | | |
| **Conductor cross-sections** | Solid, stranded and finely stranded, with end sleeve  | Screw connection (per contact) | Number x $mm^2$ | 1 x (0.5 - 1.5) | | | | |
| | | | Number x AWG | 1 x (AWG20 - AWG16) | | | | |
| | Finely stranded with insulated end sleeve  | Screw connection (per contact) | Number x $mm^2$ | 1 x (0.5 - 1.0) | | | | |
| | | | Number x AWG | 1 x (AWG20 - AWG16) | | | | |
| | Tightening torque (connection cables) | | Nm | 0.4 $^{+0.1}$ | | | | |
| | Stripped length   | | mm | 10 | | | | |
| **Power consumption $U_e$** | 12 | V DC | W | 50 | -- | -- | -- | -- |
| | 24 | 50 V AC/60 Hz | VA | 50 | -- | -- | -- | -- |
| | 24 ... 30 | V DC | W | 7 ... 50 | -- | -- | -- | -- |
| | 48 ... 60 | 50 V AC/60 Hz | VA | 15 ... 20 | -- | -- | -- | -- |
| | 48 ... 60 | V DC | W | 20 ... 30 | -- | -- | -- | -- |
| | 110 ... 127 | 50 V AC/60 Hz | VA | 30 ... 40 | -- | -- | -- | -- |
| | 110 ... 127 | V DC | W | 30 ... 40 | -- | -- | -- | -- |
| | 208 ... 277 | 50 V AC/60 Hz | VA | 16 ... 35 | -- | -- | -- | -- |
| | 220 ... 250 | V DC | W | 28 ... 35 | -- | -- | -- | -- |
| | 380 ... 600 | 50 V AC/60 Hz | VA | 10 ... 30 | -- | -- | -- | -- |
| | 24 | 50 V AC/60 Hz | VA | -- | 300 | -- | -- | -- |
| | 48 ... 60 | 50 V AC/60 Hz | VA | -- | 340 ... 600 | -- | -- | -- |
| | 110 ... 127 | 50 V AC/60 Hz | VA | -- | 500 ... 650 | -- | -- | -- |
| | 208 ... 277 | 50 V AC/60 Hz | VA | -- | 360 ... 650 | -- | -- | -- |
| | 380 ... 500 | 50 V AC/60 Hz | VA | -- | 330 ... 600 | -- | -- | -- |
| | 600 | 50 V AC/60 Hz | VA | -- | 300 | -- | -- | -- |
| | 12 | V DC | W | -- | -- | < 2.5 | | -- |
| | 24 | V DC | W | -- | -- | < 2.5 | | -- |
| | 48 | V DC | W | -- | -- | < 2.5 | | -- |
| | 60 | V DC | W | -- | -- | < 2.5 | | -- |
| | 125 ... 127 | V DC | W | -- | -- | < 2.5 | | -- |
| | 220 ... 230 | V DC | W | -- | -- | < 2.5 | | -- |
| | 250 | V DC | W | -- | -- | < 2.5 | | -- |
| | 24 | 50 V AC/60 Hz | VA | -- | -- | < 2 | | -- |
| | 48 | 50 V AC/60 Hz | VA | -- | -- | < 2 | | -- |
| | 60 | 50 V AC/60 Hz | VA | -- | -- | < 2 | | -- |
| | 110 | 50 V AC/60 Hz | VA | -- | -- | < 2 | | -- |
| | 120 ... 127 | 50 V AC/60 Hz | VA | -- | -- | < 2 | | -- |
| | 208 ... 230 | 50 V AC/60 Hz | VA | -- | -- | < 2 | | -- |
| | 380 ... 400 | 50 V AC/60 Hz | VA | -- | -- | < 2.5 | | -- |
| | 440 ... 480 | 50 V AC/60 Hz | VA | -- | -- | < 2.5 | | -- |

| | | | | Shunt trip left STL | Shunt trip flexible STF | Undervoltage release UVR | Undervoltage release with leading auxiliary switches UVR (LNO) | Universal release UNI |
|---|---|---|---|---|---|---|---|---|
| | | | |  |  |  |  |  |
| **Power consumption $U_e$** | 12 | V DC (Cat II; PELV/SELV) | W | -- | -- | -- | -- | UVR: < 2.5<br>SHT: 20 |
| | 24 | V DC (Cat II; PELV/SELV) | W | -- | -- | -- | -- | UVR: < 2.5<br>SHT: 20 |
| | 48 | V DC (Cat II; PELV/SELV) | W | -- | -- | -- | -- | UVR: < 2.5<br>SHT: 20 |
| **Rated impulse withstand voltage** | | $V_{Imp}$ | kV | 6 | | 4 | | 0.5 |
| **Making current** | | $I_{max}$ | at V | 1.5 A/24 V AC | 18 A/24 V AC | 5 mA/480 V | 5 mA/480 V | 1.5 A/24 V |
| **Maximum tripping time** | | | ms | < 10 | | | | |
| **Service life** | Electrical trips | | | 8500 | | | | |
| | Mechanical switching cycles of the circuit breaker | | | 25000 | | | | |
| **Priority over other control signals** | | | | Given | | | | |
| **Type of protection** | Lid of the accessories compartment closed | | | IP40 | | | | |
| | Lid of the accessories compartment open | | | IP20 | | | | |
| **Minimum signal duration** | | | ms | 40 | 40 | -- | -- | 40 |
| **Response voltage shunt trip** | Pick-up (circuit breaker trips) | Us/V | % | 70 ... 110 | | -- | -- | 70 ... 110 |
| **Response voltage undervoltage release** | Pick-up (circuit breaker can be switched on) | Us/V | % | -- | -- | 85 ... 110 | | |
| | Pick-up (circuit breaker trips) | Us/V | % | -- | -- | 35 ... 70 | | |
| **Tripping frequency** | Trips per hour | | | Unlimited | 120 | Unlimited | | |
| **Can be used for electrical interlocking of molded case circuit breakers** | | | | No | No | Yes | | |

## Selection and ordering data

| Version | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|
| **Auxiliary Switches and Alarm Switches** | | | | | | |
|  3VA9988-0AA11 3VA9988-0AA12 | | | | | | |
| **Auxiliary switch AUX** | | | | | | |
| Type/switching capacity/size / Electronic-compatible | | | | | | |
| HP/high switching capacity/2 slots / -- | | 3VA9988-0AA11 | | 1 | 1 unit | 1CB |
| HQ/compact size/1 slot / -- | | 3VA9988-0AA12 | | 1 | 1 unit | 1CB |
| HQ_el/compact size/1 slot / ✓ | | 3VA9988-0AA13 | | 1 | 1 unit | 1CB |
|  3VA9988-0AA21 3VA9988-0AA22 | | | | | | |
| **Leading changeover switch LCS** | | | | | | |
| Type/switching capacity/size / Electronic-compatible | | | | | | |
| HP/high switching capacity/2 slots / -- | | 3VA9988-0AA21 | | 1 | 1 unit | 1CB |
| HQ/compact size/1 slot / -- | | 3VA9988-0AA22 | | 1 | 1 unit | 1CB |
| HQ_el/compact size/1 slot / ✓ | | 3VA9988-0AA23 | | 1 | 1 unit | 1CB |
|  3VA9988-0AB11 3VA9988-0AB12 | | | | | | |
| **Trip alarm switch TAS** | | | | | | |
| Type/switching capacity/size / Electronic-compatible | | | | | | |
| HP/high switching capacity/2 slots / -- | | 3VA9988-0AB11 | | 1 | 1 unit | 1CB |
| HQ/compact size/1 slot / -- | | 3VA9988-0AB12 | | 1 | 1 unit | 1CB |
| HQ_el/compact size/1 slot / ✓ | | 3VA9988-0AB13 | | 1 | 1 unit | 1CB |
|  3VA9988-0AB32 | | | | | | |
| **Short-circuit alarm switches SAS (3VA1 only)** | | | | | | |
| For molded case circuit breakers, frame size / Electronic-compatible | | | | | | |
| For 3VA1 100 A/160 A | | | | | | |
| • HQ/compact size/1 slot / -- | | 3VA9988-0AB32 | | 1 | 1 unit | 1CB |
| • HQ_el/compact size/1 slot / ✓ | | 3VA9988-0AB33 | | 1 | 1 unit | 1CB |
| For 3VA1 250 A | | | | | | |
| • HQ/compact size/1 slot / -- | | 3VA9988-0AB34 | | 1 | 1 unit | 1CB |
| • HQ_el/compact size/1 slot / ✓ | | 3VA9988-0AB35 | | 1 | 1 unit | 1CB |
|  3VA9988-0AB22 | | | | | | |
| **Electrical alarm switches EAS (3VA2 only)** | | | | | | |
| Type/switching capacity/size / Electronic-compatible | | | | | | |
| HQ/compact size/1 slot / -- | | 3VA9988-0AB22 | | 1 | 1 unit | 1CB |
| HQ_el/compact size/1 slot / ✓ | | 3VA9988-0AB23 | | 1 | 1 unit | 1CB |
| **Undervoltage releases** | | | | | | |
|  3VA9908-0BB15 | | | | | | |
| **Undervoltage release UVR** | | | | | | |
| 50/60 Hz V AC / V DC | | | | | | |
| -- / 12 | | 3VA9908-0BB10 | | 1 | 1 unit | 1CB |
| -- / 24 | | 3VA9908-0BB11 | | 1 | 1 unit | 1CB |
| -- / 48 | | 3VA9908-0BB12 | | 1 | 1 unit | 1CB |
| -- / 60 | | 3VA9908-0BB13 | | 1 | 1 unit | 1CB |
| -- / 125 ... 127 | | 3VA9908-0BB14 | | 1 | 1 unit | 1CB |
| -- / 220 ... 230 | | 3VA9908-0BB15 | | 1 | 1 unit | 1CB |
| -- / 250 | | 3VA9908-0BB16 | | 1 | 1 unit | 1CB |
| 24 / -- | | 3VA9908-0BB20 | | 1 | 1 unit | 1CB |
| 48 / -- | | 3VA9908-0BB21 | | 1 | 1 unit | 1CB |
| 60 / -- | | 3VA9908-0BB22 | | 1 | 1 unit | 1CB |
| 110 / -- | | 3VA9908-0BB23 | | 1 | 1 unit | 1CB |
| 120 ... 127 / -- | | 3VA9908-0BB24 | | 1 | 1 unit | 1CB |
| 208 ... 230 / -- | | 3VA9908-0BB25 | | 1 | 1 unit | 1CB |
| 380 ... 400 / -- | | 3VA9908-0BB26 | | 1 | 1 unit | 1CB |
| 440 ... 480 / -- | | 3VA9908-0BB27 | | 1 | 1 unit | 1CB |



* You can order this quantity or a multiple thereof.

## Shunt trip left

3VA9988-0BL33

**Shunt trip left STL**

| Version 50/60 Hz V AC | V DC | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|
| -- | 12 | | 3VA9988-0BL10 | | 1 | 1 unit | 1CB |
| 24 | 24 ... 30 | | 3VA9988-0BL30 | | 1 | 1 unit | 1CB |
| 110 ... 127 | 110 ... 127 | | 3VA9988-0BL32 | | 1 | 1 unit | 1CB |
| 208 ... 277 | 220 ... 250 | | 3VA9988-0BL33 | | 1 | 1 unit | 1CB |
| -- | 12 | | 3VA9988-0BL10 | | 1 | 1 unit | 1CB |
| 380 ... 600 | -- | | 3VA9988-0BL20 | | 1 | 1 unit | 1CB |

**Shunt trip left STL (EI)**

| 50/60 Hz V AC | V DC | | | | | | |
|---|---|---|---|---|---|---|---|
| -- | 24 | | 3VA9988-0BM10 | | 1 | 1 unit | 1CB |

## Shunt trip flexible STF

3VA9988-0BA23

**Shunt trip flexible**

| 50/60 Hz V AC | V DC | | | | | | |
|---|---|---|---|---|---|---|---|
| 24 | -- | | 3VA9988-0BA20 | | 1 | 1 unit | 1CB |
| 48 ... 60 | -- | | 3VA9988-0BA21 | | 1 | 1 unit | 1CB |
| 110 ... 127 | -- | | 3VA9988-0BA22 | | 1 | 1 unit | 1CB |
| 208 ... 277 | -- | | 3VA9988-0BA23 | | 1 | 1 unit | 1CB |
| 380 ... 500 | -- | | 3VA9988-0BA24 | | 1 | 1 unit | 1CB |
| 600 | -- | | 3VA9988-0BA25 | | 1 | 1 unit | 1CB |

## Universal release UNI

3VA9908-0BD13

**Universal release**

| 50/60 Hz V AC | V DC | | | | | | |
|---|---|---|---|---|---|---|---|
| -- | 12 | | 3VA9908-0BD11 | | 1 | 1 unit | 1CB |
| -- | 24 | | 3VA9908-0BD12 | | 1 | 1 unit | 1CB |
| -- | 48 | | 3VA9908-0BD13 | | 1 | 1 unit | 1CB |

## Time-delay device for undervoltage releases


3VA9988-0BF22

**Time-delay device**

| V AC | V DC | Delay time | | | | | |
|---|---|---|---|---|---|---|---|
| 110 | 110 | Fixed | 3VA9988-0BF21 | | 1 | 1 unit | 1CB |
| 230 | 230 | Fixed | 3VA9988-0BF22 | | 1 | 1 unit | 1CB |
| -- | 24 | Fixed | 3VA9988-0BF23 | | 1 | 1 unit | 1CB |

4

* You can order this quantity or a multiple thereof.

## Overview

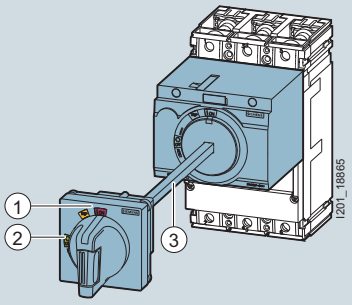
Manual operators are provided to facilitate manual operation of the 3VA molded case circuit breakers, either directly at the circuit breaker or through the door or side wall of the cubicle.

### *Front mounted rotary operator*

The front mounted rotary operator is mounted directly on the molded case circuit breaker and is available with or without a door interlocking system. It meets the requirements for degree of protection IP30. The door interlock locks the cubicle door when the molded case circuit breaker is closed, but can be deliberately overridden if necessary.

### *Door mounted rotary operator*

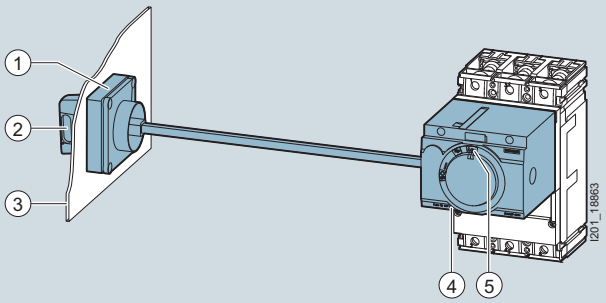
The door mounted rotary operator enables operation of the molded case circuit breaker from the cubicle door. The door element meets the requirements for degree of protection IP65 and features a door interlocking system and tolerance compensation. A variable depth adapter can be deployed to allow use of the door mounted rotary operator in conjunction with draw-out units. A supplementary handle can be attached directly to the shaft shoulder to allow convenient operation of the molded case circuit breaker when the cubicle door is open (i.e. when the control element is decoupled).




1 Door element
2 Switching position indicator ON, TRIP, OFF, RESET
3 Shaft

### *Side wall mounted rotary operator*

The side wall mounted rotary operator is designed for installation in the cubicle side wall. It is available optionally with short shaft and mounting plate for mounting directly adjacent to the cubicle wall. The wall element meets the requirements for degree of protection IP65.



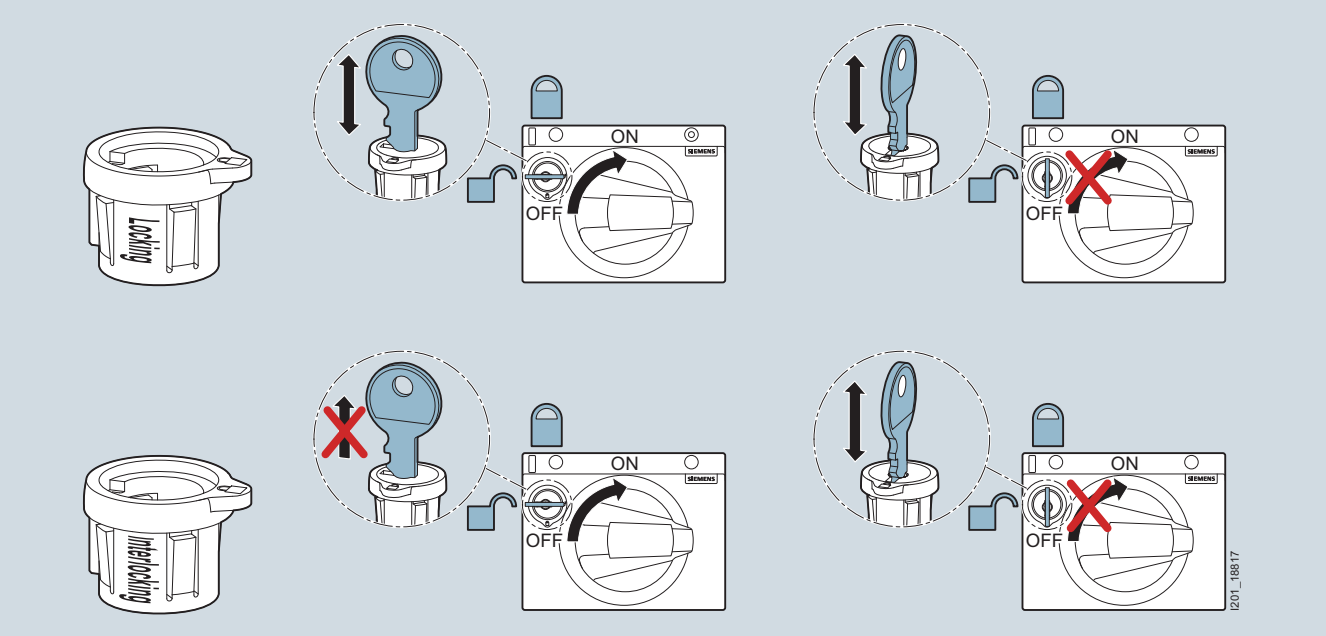

1 Side wall mounted rotary operator
2 Padlock device
3 Side wall of cubicle
4 PUSH-to-TRIP button
5 Switching position indicator ON, TRIP, OFF, RESET

All manual operators as well as the supplementary handle for the door mounted rotary operator are also available in a version for use in EMERGENCY-STOP applications. These are colored a conspicuous yellow/red for easier identification.

### *Interlocking methods*

All manual operators are designed to allow locking of the operator at the handle and at the rotary operator with up to three padlocks in each case. It is also possible to fit a cylinder lock which can be used either to lock or to interlock molded case circuit breakers depending on the application.

If the cylinder lock is applied as a lock, it can be used to prevent the molded case circuit breaker from closing. The key can be removed at any time. If the lock is used to create an interlock, the key can be removed only when it is in the OFF position, allowing the creation of an interlock by the use of a single key for several breakers.




Using the cylinder lock (type Ronis) and the cylinder lock adapter for rotary operators, it is not only possible to lock a molded case circuit breaker, but also to create an interlock between an optional number of molded case circuit breakers of different sizes.

Interlock positions

- If the molded case circuit breaker with rotary operator is merely to be locked, then the cylinder lock adapter labeled "Locking" must be used. If the rotary operator is in the "Unlocked" position (key is horizontal), the molded case circuit breaker can be closed or opened by means of the rotary operator.
- If the key is turned to the vertical position, the position of the rotary operator is "Locked". With the rotary operator in this position, the molded case circuit breaker cannot be closed.

The key can be removed from the lock in both cases.

In order to implement an interlocking application using cylinder locks, the cylinder lock adapter for rotary operators labeled "Interlocking" must be fitted in each of the molded case circuit breakers to be included in the interlock arrangement and all breakers must be locked in the "OFF" position (key in vertical position). In order to ensure reliable functioning of the interlock, only one key must be used for the entire interlock application. All other keys must be kept or locked away in a safe place, because this one key will be used as the release instrument for only one molded case circuit breaker at a time!

In order to release or operate a molded case circuit breaker, the cylinder lock must be turned to the "Unlocked" (horizontal) position with this one particular key. Only then can the rotary operator of the circuit breaker be moved to the "ON" position. The cylinder lock key cannot be removed with the lock in the "Unlocked" position, thereby ensuring that only one molded case circuit breaker at a time can be closed.

In order to implement a locking or an interlocking application involving multiple molded case circuit breakers, the following two components must be ordered for each circuit breaker:

- Cylinder lock (type Ronis)
- Cylinder lock adapter for rotary operators

Another means of implementing an interlock is to use

a Bowden cable. This allows up to three molded case circuit breakers to be mutually interlocked via the rotary operators. There is an additional option of locking the door coupling or side wall mounted rotary operator on the masking plate using a cylinder lock (type: Kaba). This cylinder lock (type: Kaba) is not suitable for the interlocking application.

Active illumination

The manual operators are also available in illuminated variants in which the handle is illuminated red, yellow or green via LEDs (24 V DC) depending on the position of the breaker. This means that the switching position of the molded case circuit breaker can be immediately identified, even when light conditions are poor. This option can also be retrofitted.

## Benefits

- Convenient circuit breaker operation inside and outside the cubicle
- Locking and interlocking for all manual operators prevents unauthorized breaker operation
- Conspicuously colored variant for EMERGENCY-STOP circuits
- Illumination for clear indication of switching position even when light conditions are poor
- All manual operators meet the standards for isolating characteristics defined by IEC / EN 60947-1

## Selection and ordering data

### Front mounted rotary operators


3VA9267-0EK11

**Front mounted rotary operators**
- Rotary operating mechanisms
- Handle
- For IEC
- Degree of protection IP30

| Version | | For molded case circuit breakers/ frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A, 160 A | 3VA1 250 A | 3VA2 100 A, 160 A, 250 A | 3VA2 400 A, 630 A | | | | | | |
| Type | Color | | | | | | | | | | |
| • Standard, without illumination kit | Gray | ✓ | -- | -- | -- | | 3VA9157-0EK11 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0EK11 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0EK11 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0EK11 | | 1 | 1 unit | 1CB |
| • Standard, with illumination kit | Gray | ✓ | -- | -- | -- | | 3VA9157-0EK13 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0EK13 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0EK13 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0EK13 | | 1 | 1 unit | 1CB |
| • EMERGENCY-STOP, without illumination kit | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0EK15 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0EK15 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0EK15 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0EK15 | | 1 | 1 unit | 1CB |
| • EMERGENCY-STOP, with illumination kit | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0EK17 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0EK17 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0EK17 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0EK17 | | 1 | 1 unit | 1CB |
| • Standard, with door interlock | Gray | ✓ | -- | -- | -- | | 3VA9157-0EK21 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0EK21 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0EK21 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0EK21 | | 1 | 1 unit | 1CB |
| • Standard, with door interlock, with illumination kit | Gray | ✓ | -- | -- | -- | | 3VA9157-0EK23 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0EK23 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0EK23 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0EK23 | | 1 | 1 unit | 1CB |
| • EMERGENCY-STOP, with door interlock | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0EK25 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0EK25 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0EK25 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0EK25 | | 1 | 1 unit | 1CB |
| • EMERGENCY-STOP, with door interlock, with illumination kit | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0EK27 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0EK27 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0EK27 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0EK27 | | 1 | 1 unit | 1CB |
|  3VA9267-0GK00 | | | | | | | | | | | |
| • Without handle, with shaft stub, without door interlock<br>• For retrofitting with 3VL handle | Gray | ✓ | -- | -- | -- | | 3VA9157-0GK00 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0GK00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0GK00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0GK00 | | 1 | 1 unit | 1CB |

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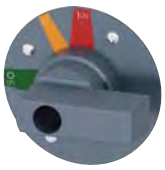
* You can order this quantity or a multiple thereof.

| | Version | | For molded case circuit breakers/ frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 3VA1 100 A, 160 A | 3VA1 250 A | 3VA2 100 A, 160 A, 250 A | 3VA2 400 A, 630 A | | | | | | |
| **Door mounted rotary operator** | | | | | | | | | | | | |
|  3VA9267-0FK21 | **Door mounted rotary operator**<br>• Rotary operating mechanisms<br>• Shaft 300 mm<br>• Mounting tolerance compensation<br>• Handle with masking plate 75 × 75 mm<br>• Degree of protection IP65 | | | | | | | | | | | |
| | Type | Color | | | | | | | | | | |
| | • Standard | Gray | ✓ | -- | -- | -- | | 3VA9157-0FK21 | | 1 | 1 unit | 1CB |
| | | | -- | ✓ | -- | -- | | 3VA9257-0FK21 | | 1 | 1 unit | 1CB |
| | | | -- | -- | ✓ | -- | | 3VA9267-0FK21 | | 1 | 1 unit | 1CB |
| | | | -- | -- | -- | ✓ | | 3VA9467-0FK21 | | 1 | 1 unit | 1CB |
| | • Standard, with illumination kit | Gray | ✓ | -- | -- | -- | | 3VA9157-0FK23 | | 1 | 1 unit | 1CB |
| | | | -- | ✓ | -- | -- | | 3VA9257-0FK23 | | 1 | 1 unit | 1CB |
| | | | -- | -- | ✓ | -- | | 3VA9267-0FK23 | | 1 | 1 unit | 1CB |
| | | | -- | -- | -- | ✓ | | 3VA9467-0FK23 | | 1 | 1 unit | 1CB |
| | • EMERGENCY-STOP | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0FK25 | | 1 | 1 unit | 1CB |
| | | | -- | ✓ | -- | -- | | 3VA9257-0FK25 | | 1 | 1 unit | 1CB |
| | | | -- | -- | ✓ | -- | | 3VA9267-0FK25 | | 1 | 1 unit | 1CB |
| | | | -- | -- | -- | ✓ | | 3VA9467-0FK25 | | 1 | 1 unit | 1CB |
| | • EMERGENCY-STOP, with illumination kit | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0FK27 | | 1 | 1 unit | 1CB |
| | | | -- | ✓ | -- | -- | | 3VA9257-0FK27 | | 1 | 1 unit | 1CB |
| | | | -- | -- | ✓ | -- | | 3VA9267-0FK27 | | 1 | 1 unit | 1CB |
| | | | -- | -- | -- | ✓ | | 3VA9467-0FK27 | | 1 | 1 unit | 1CB |
|  3VA9487-0GC01 | **Supplementary handle for door mounted rotary operator** | | | | | | | | | | | |
| | Type | Color | | | | | | | | | | |
| | • Standard | Gray | ✓ | ✓ | -- | -- | | 3VA9287-0GC01 | | 1 | 1 unit | 1CB |
| | | | -- | -- | ✓ | -- | | 3VA9487-0GC01 | | 1 | 1 unit | 1CB |
| | | | -- | -- | -- | ✓ | | 3VA9487-0GC11 | | 1 | 1 unit | 1CB |
| | • EMERGENCY-STOP | Yellow-red | ✓ | ✓ | -- | -- | | 3VA9287-0GC05 | | 1 | 1 unit | 1CB |
| | | | -- | -- | ✓ | -- | | 3VA9487-0GC05 | | 1 | 1 unit | 1CB |
| | | | -- | -- | -- | ✓ | | 3VA9487-0GC15 | | 1 | 1 unit | 1CB |
|  8UD1900-2WB00 | **Shaft**<br>8 mm | | | | | | | | | | | |
| | Versions | | | | | | | | | | | |
| | • 300 mm long | | | | | | | 8UD1900-2WA00 | | 1 | 1 unit | 1CB |
| | • 600 mm long | | | | | | | 8UD1900-2WB00 | | 1 | 1 unit | 1CB |
|  8UD1900-2DA00 | **Adapter for shaft 8 mm x 8 mm**<br>With door mounted rotary operator and side wall mounted rotary operator | | | | | | | 8UD1900-2DA00 | | 1 | 1 unit | 1CB |
|  8UD1900-2HA00 | **Door coupling**<br>8 × 8 mm | | | | | | | 8UD1900-2HA00 | | 1 | 1 unit | 1CB |
|  3VA9487-0GA80 | **Fixing bracket for shaft** | | ✓ | ✓ | -- | -- | | 3VA9287-0GA80 | | 1 | 1 unit | 1CB |
| | | | -- | -- | ✓ | ✓ | | 3VA9487-0GA80 | | 1 | 1 unit | 1CB |
|  3VA9487-0GB10 | **Variable depth adapter**<br>8 × 8 mm | | | | | | | 3VA9487-0GB10 | | 1 | 1 unit | 1CB |
|  8UD1900-2GA00 | **Mounting tolerance compensation**<br>8 × 8 mm | | | | | | | 8UD1900-2GA00 | | 1 | 1 unit | 1CB |

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* You can order this quantity or a multiple thereof.

## Manual operators

### Side wall mounted rotary operators


3VA9267-0PK11

**Side wall mounted rotary operators**
- Without mounting plate
  - Rotary operator with shaft 300 mm
  - Handle with masking plate 75 x 75 mm
  - Degree of protection IP65

| Version | | For molded case circuit breakers/ frame size 3VA1 100 A, 160 A | 3VA1 250 A | 3VA2 100 A 160 A, 250 A | 3VA2 400 A, 630 A | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • Standard | Gray | ✓ | -- | -- | -- | | 3VA9157-0PK11 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0PK11 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0PK11 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0PK11 | | 1 | 1 unit | 1CB |
| • Standard, with illumination kit | Gray | ✓ | -- | -- | -- | | 3VA9157-0PK13 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0PK13 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0PK13 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0PK13 | | 1 | 1 unit | 1CB |
| • EMERGENCY-STOP | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0PK15 | | 1 | 1 unit | 1CB |
| | | | ✓ | -- | -- | | 3VA9257-0PK15 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0PK15 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0PK15 | | 1 | 1 unit | 1CB |
| • EMERGENCY-STOP, with illumination kit | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0PK17 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0PK17 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0PK17 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0PK17 | | 1 | 1 unit | 1CB |

- With mounting plate
  - Rotary operator with short shaft
  - Handle with masking plate 75 x 75 mm
  - Degree of protection IP65


3VA9267-0PK51

| Type | Color | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • Standard | Gray | ✓ | -- | -- | -- | | 3VA9157-0PK51 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0PK51 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0PK51 | | 1 | 1 unit | 1CB |
| • Standard, with illumination kit | Gray | ✓ | -- | -- | -- | | 3VA9157-0PK53 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0PK53 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0PK53 | | 1 | 1 unit | 1CB |
| • EMERGENCY-STOP | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0PK55 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0PK55 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0PK55 | | 1 | 1 unit | 1CB |
| • EMERGENCY-STOP, with illumination kit | Yellow-red | ✓ | -- | -- | -- | | 3VA9157-0PK57 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0PK57 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0PK57 | | 1 | 1 unit | 1CB |


3VA9987-0GL30

**Extended DIN rail for N/PE terminal**
- For mounting plate
- Up to 250 A

3VA9987-0GL30 | | | | | | | | 1 | 1 unit | 1CB

### Handles


8UD1731-0AB11

**Handles**
- With masking plate

| Type | Color | Tolerance compensation | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • Standard | Gray | None | ✓ | ✓ | ✓ | -- | | 8UD1721-0AB11 | | 1 unit | 1CB |
| | | With | ✓ | ✓ | ✓ | -- | | 8UD1721-0AB21 | | 1 unit | 1CB |
| | | None | -- | -- | -- | ✓ | | 8UD1731-0AB11 | | 1 unit | 1CB |
| | | With | -- | -- | -- | ✓ | | 8UD1731-0AB21 | | 1 unit | 1CB |
| • EMERGENCY-STOP | Yellow-red | None | ✓ | ✓ | ✓ | -- | | 8UD1721-0AB15 | | 1 unit | 1CB |
| | | With | ✓ | ✓ | ✓ | -- | | 8UD1721-0AB25 | | 1 unit | 1CB |
| | | None | -- | -- | -- | ✓ | | 8UD1731-0AB15 | | 1 unit | 1CB |
| | | With | -- | -- | -- | ✓ | | 8UD1731-0AB25 | | 1 unit | 1CB |



* You can order this quantity or a multiple thereof.

| | Version | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|
| **General accessories for manual operators** | | | | | | | | |
|  3VA9087-0SX10 | **Labeling plate for manual operators** | | | 3VA9087-0SX10 | | 1 | 10 units | 1CB |
|  8UD1900-0KA20 | **Illumination kit for manual operators** 24 V DC voltage | For molded case circuit breakers | | | | | | |
| | | 3VA1, 100 ... 250 A Front mounted rotary operators | | 8UD1900-0KA10 | | 1 | 1 unit | 1CB |
| | | 3VA2, 100 ... 630 A Front mounted rotary operators | | 8UD1900-0KA20 | | 1 | 1 unit | 1CB |
| | | 3VA1, 3VA2, 100 … 630 A Door mounted rotary operator and side wall mounted rotary operator | | 8UD1900-0KA20 | | 1 | 1 unit | 1CB |
|  8UD1900-0MB01 | **Cylinder lock (type Kaba)** • For door mounted rotary operator and side wall mounted rotary operator (in the masking plate) • Standard masking plate | Key 1 | | 8UD1900-0MB01 | | 1 | 1 unit | 1CB |
| | | Key 2 | | 8UD1900-0NB01 | | 1 | 1 unit | 1CB |
| | | Key 3 | | 8UD1900-0PB01 | | 1 | 1 unit | 1CB |
| | | Key 4 | | 8UD1900-0QB01 | | 1 | 1 unit | 1CB |
|  8UD1900-0MB05 | **Cylinder lock (type Kaba)** • For door mounted rotary operator and side wall mounted rotary operator (in the masking plate) • EMERGENCY-STOP masking plate | Key 1 | | 8UD1900-0MB05 | | 1 | 1 unit | 1CB |
| | | Key 2 | | 8UD1900-0NB05 | | 1 | 1 unit | 1CB |
| | | Key 3 | | 8UD1900-0PB05 | | 1 | 1 unit | 1CB |
| | | Key 4 | | 8UD1900-0QB05 | | 1 | 1 unit | 1CB |
|  3VA9488-0VF20 | **Rotary operator interlock**[1] • Contains 1 unit • For interlocking up to 3 operators (with 3 modules) • Interlocking via Bowden cable (not included in scope of delivery), see page 4/57 | For molded case circuit breakers | | | | | | |
| | | 3VA1, 160 A | | 3VA9158-0VF20 | | | | |
| | | 3VA1, 250 A | | 3VA9258-0VF20 | | | | |
| | | 3VA2, 250 A | | 3VA9268-0VF20 | | | | |
| | | 3VA2, 630 A | | 3VA9468-0VF20 | | | | |
|  3VA9980-0VL10 | **Cylinder lock (type Ronis)** • Includes a lock with 2 keys • For locking or interlocking • For installation in all rotary operators with shaft stub • For mounting in the adapter kit for the accessories compartment | | | | | | | |
| | | Key 1 | | 3VA9980-0VL10 | | 1 | 1 unit | 1CB |
| | | Key 2 | | 3VA9980-0VL20 | | 1 | 1 unit | 1CB |
| | | Key 3 | | 3VA9980-0VL30 | | 1 | 1 unit | 1CB |
| | | Key 4 | | 3VA9980-0VL40 | | 1 | 1 unit | 1CB |
| | Note | | | | | | | |
| | The cylinder lock adapter for rotary operators is also needed for locking or interlocking circuit breakers via rotary operators. | | | | | | | |
|  3VA9980-0LF20 | **Cylinder lock adapter for rotary operators** To mount the cylinder lock in the rotary operator (also possible with door mounted rotary operator and side wall mounted rotary operator) | | | 3VA9980-0LF20 | | 1 | 1 unit | 1CB |

[1] Start of delivery scheduled for 1st quarter 2016

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## Motor operators

### Overview

***Lateral motorized operator MO310***

The lateral motor operator MO310 is optimized for use in in the area of electrical installation. It is mounted on the side of the 3VA1 molded-case circuit breaker and, thanks to the cover size of 45 mm, is suitable for side-by-side arrangement with miniature circuit breakers.

The motor operator MO310 can also be locked with several padlocks.

***MO320 front motor operator***

The MO320 motor operator is mounted on the front of the 3VA molded-case circuit breaker and opens and closes the molded case circuit breaker by means of control cable commands (e.g. from pushbuttons or a PLC). It can also be operated manually, however, and a handle is provided on the unit for this purpose.

The motor operator also features a clear switching position indicator which indicates ON and OFF and, via LED, whether the circuit breaker has tripped (TRIP). The motor operator therefore meets the standards for isolating characteristics defined by IEC / EN 60947-1. It is thus possible to identify the switching position of the molded case circuit breaker at any time.

Two different reset modes can be selected, i.e. in one mode, the operator resets the molded case circuit breaker automatically and in the other, it waits for confirmation by an OFF signal before it resets the breaker.

Furthermore, the motor operator can be locked in the OFF position by means of several padlocks.

### Benefits

- Remote operation of the molded case circuit breaker by means of control cable commands
- Clear switching position indication including TRIP provides a quick visual overview and prevents operating errors
- Locking capability prevents unauthorized operations
- Meets the standards for isolating characteristics defined by IEC / EN 60947-1

### Design

- The MO320 motor operator is simply snapped into position on a mounting frame which is installed instead of the accessories lid of the molded case circuit breaker.

### Technical specifications

| **MO310 motor operator** | **3VA1** 160 A |
|---|---|
| Degree of protection | IP20, with escutcheon IP30 |
| Rated control supply voltage (operating range of control supply voltage) | 42 V ... 60 V AC/ 24 V ... 60 V DC (0.85 ... 1.26)<br>110 V ... 230 V AC/ 110 V ... 250 V DC (0.85 ... 1.1) |
| Rating | 250 W, max. 500 W (60 ms) |
| Make time, typically | < 300 ms |
| Break time, typically | < 300 ms |

| **MO320 motor operator** | **3VA1** | | **3VA2** | |
|---|---|---|---|---|
| | 160 A | 250 A | 250 A | 630 A |
| Degree of protection | IP20, with escutcheon IP30 | | | |
| Rated control supply voltage (operating range of control supply voltage) | 24 V ... 60 V DC (0,85 ... 1.26)<br>110 V ... 230 V AC/ 110 V ... 250 V DC (0.85 ... 1.1) | | | |
| Rating | 250 W, max. 500 W (60 ms) | | | |
| Make time, typically | < 800 ms | < 800 ms | < 1000 ms | < 1700 ms |
| Break time, typically | < 800 ms | < 800 ms | < 1000 ms | < 1400 ms |

### Selection and ordering data

| | Version | For molded case circuit breakers/ frame size 3VA1 160 A | 3VA1 250 A | 3VA2 100 A, 160 A, 250 A | 3VA2 400 A, 630 A | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Motorized operating mechanisms** | | | | | | | | | | | |
|  3VA9267-0HB10 | **Lateral motor operator (MO310)** | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • 24 ... 60 V DC 42 ... 60 V AC | ✓ | -- | -- | -- | | 3VA9117-0HB10 | | 1 | 1 unit | 1CB |
| | • 110 ... 230 V AC, 110 ... 250 V DC | ✓ | -- | -- | -- | | 3VA9117-0HB20 | | 1 | 1 unit | 1CB |
|  3VA9267-0HA10 | **Motor operators without stored energy feature (MO320)** | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • 24 ... 60 V DC | ✓ | -- | -- | -- | | 3VA9157-0HA10 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0HA10 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0HA10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0HA10 | | 1 | 1 unit | 1CB |
| | • 110 ... 230 V AC, 110 ... 250 V DC | ✓ | -- | -- | -- | | 3VA9157-0HA20 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0HA20 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9267-0HA20 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9467-0HA20 | | 1 | 1 unit | 1CB |



* You can order this quantity or a multiple thereof.

## Overview

The proper functioning and in particular the safety of electrical installations does not just depend on the quality and design of the components, but also on the method of installation.

The following aspects of electrical installations are of crucial importance for the implementation of a safe, properly functioning connection to the 3VA molded case circuit breakers:

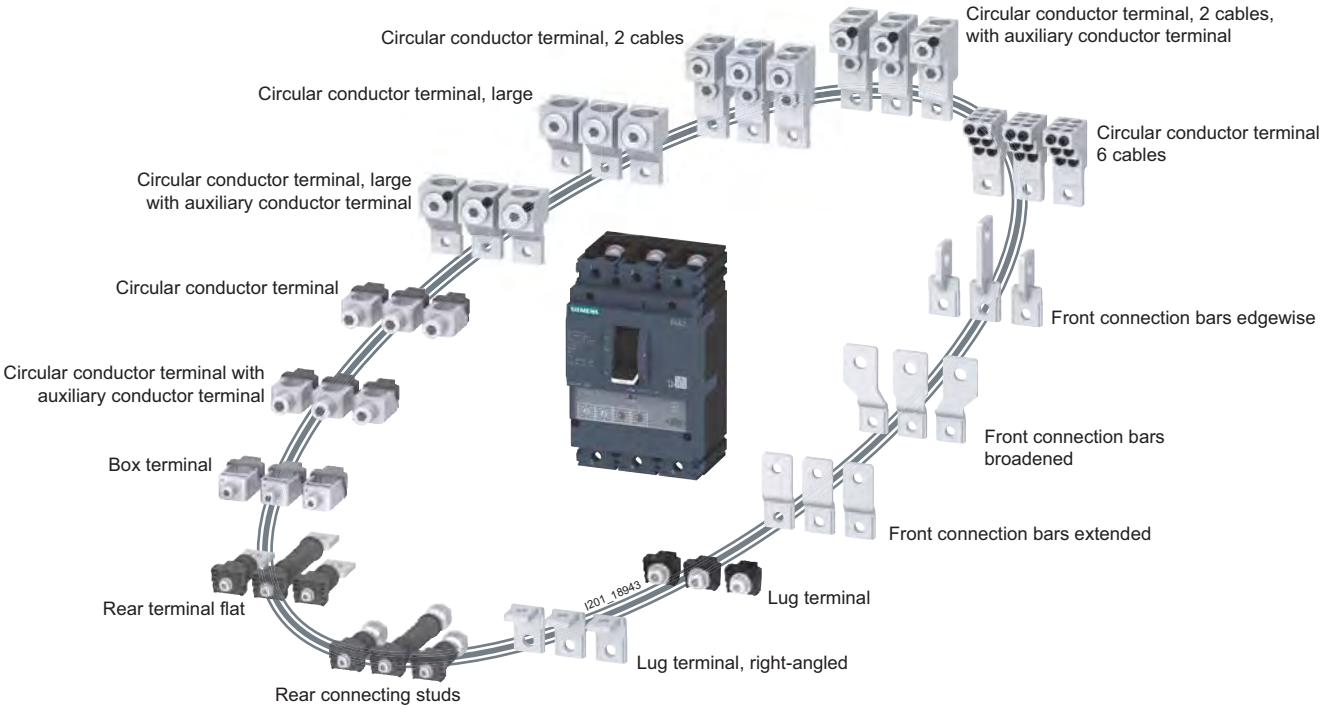
- Installation, e.g. connection to cables or busbars
- Dimensioning of the cables and busbars
- Installation medium, e.g. rigid or flexible

The following catalog pages provide all the information needed to ensure that a 3VA molded case circuit breaker is safely connected.

***Connection technology for the 3VA molded case circuit breaker***

The connection technology of the 3VA molded case circuit breakers is designed to support uncomplicated and convenient commissioning of the 3VA molded case circuit breakers and to meet all installation requirements.

To meet this objective, an extensive portfolio of connection components is available.



## Connection technology

### *Front terminals*

The portfolio of connection components for the molded case circuit breakers includes a large selection of front cable and busbar terminals.

Connection technology available from/installed at the factory

All 3VA molded case circuit breakers are available as standard with a lug terminal (clip-in nut and clamping screw) at the infeed and load ends.

For units up to size 160 A, a box terminal for direct cable connection can be optionally selected instead of the lug terminal. The box terminal is preassembled and installed at the factory.

The connection technology available from/installed at the factory can be selected in the 12th position of the circuit breaker MLFB.

| Connection technology | Illustration | 3VA1 | | | 3VA2 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 100 | 160 | 250 | 100 | 160 | 250 | 400 | 630 |
| Lug terminal |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Box terminal |  | ✓ | ✓ | -- | ✓ | ✓ | -- | -- | -- |

✓ Available

Insulated busbars and cables with cable lugs can be connected directly to the lug terminal. Furthermore, all connection bar extensions are assembled at the molded case circuit breaker using the lug terminal:

- Front connection bars extended (phase barriers included in scope of supply)
- Front connection bars broadened (phase barriers included in scope of supply)
- Front connection bars edgewise (phase barriers included in scope of supply)
- Lug terminal, right-angled (phase barriers included in scope of supply)

The implementation of insulation measures (phase barriers or terminal covers) is recommended. With some accessory components, insulation measures are essential (and these are included in the scope of supply of the relevant component).

In addition to the factory-mounted connection technology included in the scope of the supply of the breaker, the following front connection components are available as accessories:

| | | Cable medium | | | |
|---|---|---|---|---|---|
| | |  |  |  |  |
| **Front terminals** | **Illustration** | **Solid, stranded and finely stranded cables** | **Cable lugs** | **Busbars** | **Flexible busbars** |
| Box terminal |  | ✓ Cu cable | -- | -- | ✓ |
| Circular conductor terminal of aluminum |  | ✓ Cu/Al cable | -- | -- | -- |
| Circular conductor terminal of aluminum with auxiliary conductor terminal |  | ✓ Cu/Al cable | -- | -- | -- |
| Circular conductor terminal of aluminum, large (extended terminal cover included in scope of supply) |  | ✓ Cu/Al cable | -- | -- | -- |
| Circular conductor terminal of aluminum, large with auxiliary conductor terminal (extended terminal cover included in scope of supply) |  | ✓ Cu/Al cable | -- | -- | -- |
| Circular conductor terminal of aluminum, 2 cables (extended terminal cover included in scope of supply) |  | ✓ Cu/Al cable | -- | -- | -- |
| Circular conductor terminal of aluminum, 2 cables with auxiliary conductor terminal (extended terminal cover included in scope of supply) |  | ✓ Cu/Al cable | -- | -- | -- |
| Circular conductor terminal 6 cables (extended terminal cover included in scope of supply) |  | ✓ Cu/Al cable | -- | -- | -- |
| Lug terminal |  | -- | ✓ | ✓ | ✓ |
| Front connection bars extended (phase barriers included in scope of supply) |  | -- | ✓ | ✓ | ✓ |
| Front connection bars broadened (phase barriers included in scope of supply) |  | -- | ✓ | ✓ | ✓ |
| Front connection bars edgewise (phase barriers included in scope of supply) |  | -- | ✓ | ✓ | ✓ |

✓ Available -- Not available

The circular conductor terminals (large, 2 cables, and 6 cables) are supplied as standard with extended terminal covers.

## Connection technology

### *Rear terminals*

The following connection components are available for implementing a rear terminal:

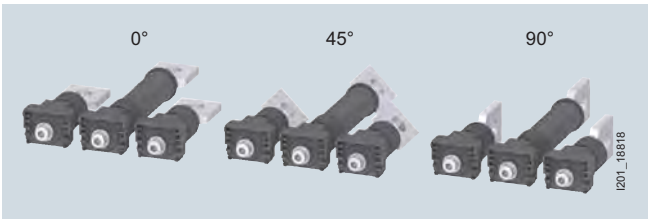
| | | Cable medium | | | |
|---|---|---|---|---|---|
| | |  |  |  |  |
| **Rear terminals** | **Illustration** | **Solid, stranded and finely stranded cables** | **Cable lugs** | **Busbars** | **Flexible busbars** |
| Rear terminal flat |  | -- | ✓ | ✓ | ✓ |
| Rear connecting stud |  | -- | ✓ | ✓ | ✓ |
| Lug terminal, right-angled (phase barriers in scope of supply)[1] |  | ✓[2] | ✓ | ✓ | ✓ |

✓ Available -- Not available

[1] Can only be connected to breaker side N,1,3,5

[2] In conjunction with a box terminal

The rear terminal flat can be mounted at an angle in increments of 45°:




Insulated busbars and cables with cable lugs can be connected to the right-angled lug terminal. A box terminal can be mounted to allow direct connection of a cable to the right-angled lug terminal.

### *General note about connection technology*

All connection components are available in the following sets:

- Set with 3 units
- Set with 4 units

The rear terminals are an exception as these can also be ordered individually (1 unit).

The termination areas for plug-in design (plug-in socket) and draw-out design (socket for draw-out unit) are designed in the same way as those of the molded case circuit breaker, i.e. the connection technology which is available for 3VA molded case circuit breakers can be used in the same way for the plug-in and draw-out sockets.

### *Conductor cross-sections*

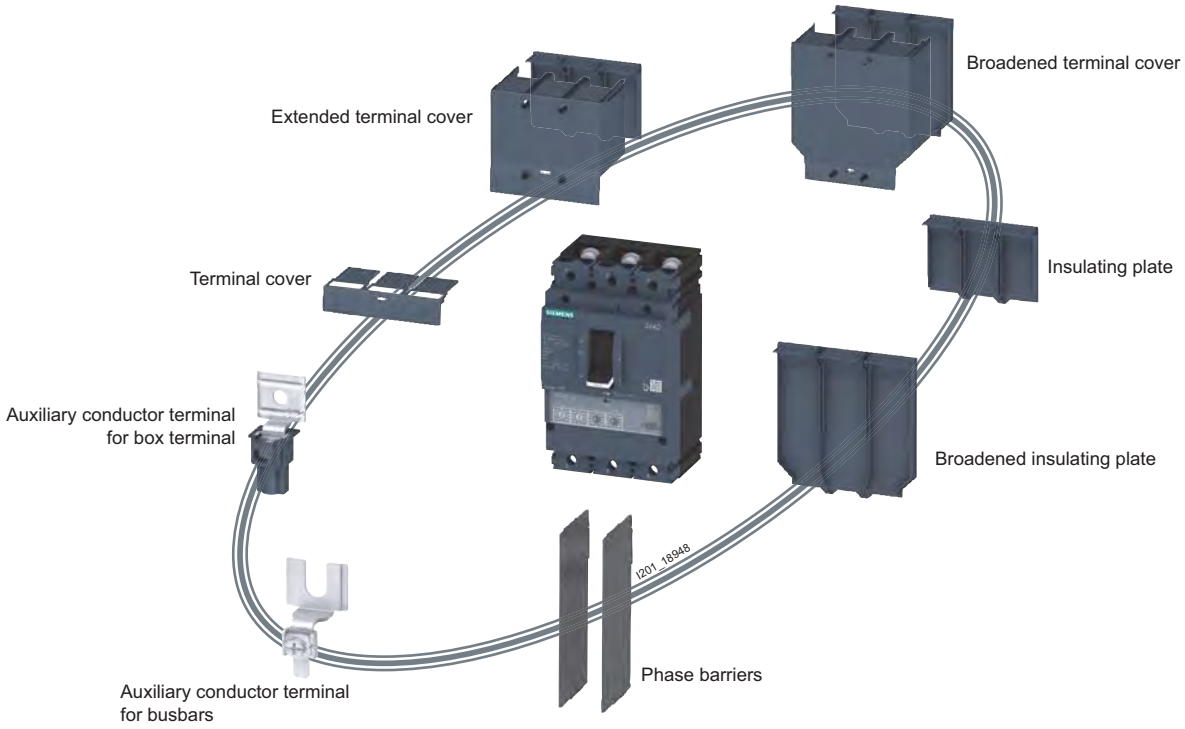
| Connection technology | Cable medium | Cables and busbars | Dimensions | 3VA1 | | 3VA2 | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 100 A/160 A | 250 A | 100 A/160 A/250 A | 400 A | 630 A |
| Box terminal  | Solid cable | Cu cable | $mm^2$ | 1.5 ... 16 | 6 ... 16 | 6 ... 16 | -- | -- |
| | Stranded cable | Cu cable | $mm^2$ | 1.5 ... 70 | 6 ... 120<br>50 ... 185 | 6 ... 120<br>25 ... 185 | 35 ... 300 | 35 ... 300 |
| | Finely stranded cable | Cu cable | $mm^2$ | 1.5 ... 50 | 10 ... 95<br>95 ... 150 | 10 ... 95<br>35 ... 150 | 25 ... 240 | 25 ... 240 |
| | Finely stranded with insulated end sleeve | Cu cable | $mm^2$ | 1.5 ... 50 | 6 ... 95<br>50 ... 150 | 6 ... 95<br>25 ... 150 | 25 ... 240 | 25 ... 240 |
| | Flexible copper busbar | Flexible busbar | mm x mm | 2x ..6x [13 x 0.5] ...<br>2x ..9x [9 x 0.8] | 2x ..6x [13 x 0.5] ...<br>2x ..6x [15.5 x 0.8] ...<br>2x ..6x [20 x 1] | 2x ..6x [13 x 0.5] ...<br>2x ..6x [15.5 x 0.8] ...<br>2x ..6x [20 x 1] | 2x ..10x [20 x 1] ...<br>2x ..10x [24 x 1] | 2x ..10x [20 x 1] ...<br>2x ..10x [24 x 1] |
| Circular conductor terminals  | Solid cable | Cu/Al cable | $mm^2$ | 2.5/4 ... 16 | -- | 1.5/4 ... 16 | -- | -- |
| | Stranded cable | Cu/Al cable | $mm^2$ | 1.5/4 ... 50 | 35 ... 185 | 1.5/4 ... 50<br>16 ... 185 | 50 ... 300 | -- |
| | Finely stranded cable | Cu cable | $mm^2$ | 1.5 ... 35 | 35 ... 150 | 1.5 ... 35<br>25 ... 150 | 50 ... 240 | -- |
| | Finely stranded with insulated end sleeve | Cu cable | $mm^2$ | 1.5 ... 35 | 35 ... 150 | 1.5 ... 35<br>16 ... 120 | 50 ... 240 | -- |
| Circular conductor terminal, large  | Solid cable | | | -- | -- | -- | -- | -- |
| | Stranded cable | Cu/Al cable | $mm^2$ | 25 ... 150 | 50 ... 240 | 50 ... 240 | -- | -- |
| | Finely stranded cable | Cu cable | $mm^2$ | 25 ... 120 | 50 ... 185 | 50 ... 185 | -- | -- |
| | Finely stranded with insulated end sleeve | Cu cable | $mm^2$ | 25 ... 95 | 50 ... 185 | 50 ... 185 | -- | -- |
| Circular conductor terminal for 2 cables  | Solid cable | | | -- | -- | -- | -- | -- |
| | Stranded cable | Cu/Al cable | $mm^2$ | -- | 25 ... 150 | 25 ... 150 | 70 ... 300 | 70 ... 300 |
| | Finely stranded cable | Cu cable | $mm^2$ | -- | 25 ... 150 | 25 ... 150 | 70 ... 240 | 70 ... 240 |
| | Finely stranded with insulated end sleeve | Cu cable | $mm^2$ | -- | 25 ... 70 | 25 ... 70 | 70 ... 185 | 70 ... 185 |
| Circular conductor terminal for 6 cables  | Solid cable | Cu/Al cable | $mm^2$ | 1.5/4 ... 16 | 1.5/4 ... 16 | 1.5/4 ... 16 | 1.5/4 ... 16 | 1.5/4 ... 16 |
| | Stranded cable | Cu/Al cable | $mm^2$ | 1.5/4 ... 35 | 1.5/4 ... 35 | 1.5/4 ... 35 | 1.5/4 ... 35 | 1.5/4 ... 35 |
| | Finely stranded cable | Cu cable | $mm^2$ | 1.5 ... 25 | 1.5 ... 25 | 1.5 ... 25 | 1.5 ... 25 | 1.5 ... 25 |
| | Finely stranded with insulated end sleeve | Cu cable | $mm^2$ | 1.5 ... 25 | 1.5 ... 25 | 1.5 ... 25 | 1.5 ... 25 | 1.5 ... 25 |
| Busbar connection | Direct (width x height) | Busbar | mm x mm | 17 x 6.5 | 25 x 8 | 25 x 8 | 35 x 10 | 35 x 10 |
| | Front connection bars extended | Busbar | mm x mm | 22 x 8 | 32 x 10 | 32 x 10 | 40 x 12.5 | 40 x 12.5 |
| | Front connection bars broadened | Busbar | mm x mm | 30 x 8 | 35 x 10 | 35 x 10 | 60 x 12.5 | 60 x 12.5 |

## Connection technology

***Further connection accessories***

Insulation / auxiliary conductor connections

The connection accessories portfolio includes an extensive selection of insulating components (phase barriers, terminal covers, etc.). Auxiliary conductor connections for box terminals and busbars are also available.






Terminal covers

Terminal covers are insulating and sealable insulation accessories which protect against accidental contact with main current paths. When mounted on the circuit breaker, terminal covers at the front provide degree of protection IP4x and when correctly installed at the infeed and load ends of the breaker, degree of protection IP2x. All terminal covers have a recess on the inside face which can be drilled out if necessary so that safe isolation can be afforded by commercially available voltage detectors.

- Short terminal covers are normally installed for all types of front termination which do not exceed the geometric dimensions of the molded-case circuit breaker (the termination area) (e.g. box terminal, lug terminal, etc.).
- Extended terminal covers are required when bar extensions or external terminals (i.e. terminals which exceed the dimensions of the termination area of the molded case circuit breaker) are installed. The extended terminal cover consists of two parts, an insulating plate and the top half of the terminal cover. Both parts are attached by screws and thus afford the degrees of protection specified above.
- Broad terminal covers are required when broadened connection bars are installed. The extended terminal cover consists of two parts, a broadened insulating plate and the top half of the terminal cover. Both parts are attached by screws and thus afford the degrees of protection specified above.

Insulating plates

The purpose of insulating plates is to insulate the main terminals of the molded case circuit breaker from the mounting plate (cubicle).

- Insulating plate: in combination with bar extensions, for example
- Insulating plate broadened: in combination with broadened connection bars, for example

Auxiliary conductor terminals

All circular conductor terminals can be ordered with or without auxiliary conductor terminal (see page 2/10, Front terminals). The following accessories are available to allow the implementation of an auxiliary conductor terminal in combination with a box terminal or busbar connection:

- Auxiliary conductor terminal for box terminal: This terminal is fastened by screws in the box terminal with the cable.
- Auxiliary conductor terminal for busbars: This terminal is attached by screws directly to the busbar.

All auxiliary conductor terminals are rated for a maximum load of 6 A. Cables of up to 2.5 $mm^2$ can be connected.

### Benefits

- High degree of flexibility
- Cables and busbars can be connected quickly and easily to the 3VA molded case circuit breaker
- Extensive selection of connection accessories

## Connection parts – suitable for all installation types (fixed mounting, plug-in and draw-out versions)

### Selection and ordering data

| | Version | Minimum mm² for stranded cable | Maximum mm² for stranded cable | For molded case circuit breakers/frame size 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Box terminals suitable for all installation types (fixed mounting, plug-in and draw-out versions)** | | | | | | | | | | | | | |
|  3VA9163-0JA12 | **Box terminal** • Connection of Cu cable • Included in scope of supply: 3 single terminals | 1.5 mm² | 70 mm² | ✓ | -- | -- | -- | | 3VA9153-0JA11 | | 1 | 1 unit | 1CB |
| | | 6 mm² | 120 mm² | -- | ✓ | -- | -- | | 3VA9253-0JA11 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 185 mm² | -- | ✓ | -- | -- | | 3VA9253-0JA12 | | 1 | 1 unit | 1CB |
| | | 6 mm² | 120 mm² | -- | -- | ✓ | -- | | 3VA9163-0JA12 | | 1 | 1 unit | 1CB |
| | | 25 mm² | 185 mm² | -- | -- | ✓ | -- | | 3VA9263-0JA12 | | 1 | 1 unit | 1CB |
| | | 35 mm² | 300 mm² | -- | -- | -- | ✓ | | 3VA9483-0JA13 | | 1 | 1 unit | 1CB |
|  3VA9164-0JA12 | **Box terminal** • Connection of Cu cable • Included in scope of supply: 4 single terminals | 1.5 mm² | 70 mm² | ✓ | -- | -- | -- | | 3VA9154-0JA11 | | 1 | 1 unit | 1CB |
| | | 6 mm² | 120 mm² | -- | ✓ | -- | -- | | 3VA9254-0JA11 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 185 mm² | -- | ✓ | -- | -- | | 3VA9254-0JA12 | | 1 | 1 unit | 1CB |
| | | 6 mm² | 120 mm² | -- | -- | ✓ | -- | | 3VA9164-0JA12 | | 1 | 1 unit | 1CB |
| | | 25 mm² | 185 mm² | -- | -- | ✓ | -- | | 3VA9264-0JA12 | | 1 | 1 unit | 1CB |
| | | 35 mm² | 300 mm² | -- | -- | -- | ✓ | | 3VA9484-0JA13 | | 1 | 1 unit | 1CB |
| **Circular conductor terminals suitable for all installation types (fixed mounting, plug-in and draw-out versions)** | | | | | | | | | | | | | |
|  3VA9103-0JB11 | **Circular conductor terminals** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals | 1.5 mm² | 50 mm² | ✓ | -- | -- | -- | | 3VA9113-0JB11 | | 1 | 1 unit | 1CB |
| | | 35 mm² | 185 mm² | -- | ✓ | -- | -- | | 3VA9253-0JB12 | | 1 | 1 unit | 1CB |
| | | 1.5 mm² | 50 mm² | -- | -- | ✓ | -- | | 3VA9103-0JB11 | | 1 | 1 unit | 1CB |
| | | 16 mm² | 185 mm² | -- | -- | ✓ | -- | | 3VA9263-0JB12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 300 mm² | -- | -- | -- | ✓ | | 3VA9383-0JB13 | | 1 | 1 unit | 1CB |
|  3VA9104-0JB11 | **Circular conductor terminals** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals | 1.5 mm² | 50 mm² | ✓ | -- | -- | -- | | 3VA9114-0JB11 | | 1 | 1 unit | 1CB |
| | | 35 mm² | 185 mm² | -- | ✓ | -- | -- | | 3VA9254-0JB12 | | 1 | 1 unit | 1CB |
| | | 1.5 mm² | 50 mm² | -- | -- | ✓ | -- | | 3VA9104-0JB11 | | 1 | 1 unit | 1CB |
| | | 16 mm² | 185 mm² | -- | -- | ✓ | -- | | 3VA9264-0JB12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 300 mm² | -- | -- | -- | ✓ | | 3VA9384-0JB13 | | 1 | 1 unit | 1CB |
|  3VA9103-0JG11 | **Circular conductor terminal with auxiliary conductor terminal** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals | 16 mm² | 50 mm² | ✓ | -- | -- | -- | | 3VA9113-0JG11 | | 1 | 1 unit | 1CB |
| | | 35 mm² | 185 mm² | -- | ✓ | -- | -- | | 3VA9253-0JG12 | | 1 | 1 unit | 1CB |
| | | 1.5 mm² | 50 mm² | -- | -- | ✓ | -- | | 3VA9103-0JG11 | | 1 | 1 unit | 1CB |
| | | 16 mm² | 185 mm² | -- | -- | ✓ | -- | | 3VA9263-0JG12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 300 mm² | -- | -- | -- | ✓ | | 3VA9383-0JG13 | | 1 | 1 unit | 1CB |
|  3VA9104-0JG11 | **Circular conductor terminal with auxiliary conductor terminal** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals | 16 mm² | 50 mm² | ✓ | -- | -- | -- | | 3VA9114-0JG11 | | 1 | 1 unit | 1CB |
| | | 35 mm² | 185 mm² | -- | ✓ | -- | -- | | 3VA9254-0JG12 | | 1 | 1 unit | 1CB |
| | | 1.5 mm² | 50 mm² | -- | -- | ✓ | -- | | 3VA9104-0JG11 | | 1 | 1 unit | 1CB |
| | | 16 mm² | 185 mm² | -- | -- | ✓ | -- | | 3VA9264-0JG12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 300 mm² | -- | -- | -- | ✓ | | 3VA9384-0JG13 | | 1 | 1 unit | 1CB |
| **Lug terminals suitable for all installation types (fixed mounting, plug-in and draw-out versions)** | | | | | | | | | | | | | |
|  3VA9203-0QA00 | **Lug terminal** Included in scope of supply: • 3 single terminals | 17 mm | 6.5 mm | ✓ | -- | -- | -- | | 3VA9113-0QA00 | | 1 | 1 unit | 1CB |
| | | 25 mm | 8 mm | -- | ✓ | -- | -- | | 3VA9213-0QA00 | | 1 | 1 unit | 1CB |
| | | 25 mm | 8 mm | -- | -- | ✓ | -- | | 3VA9203-0QA00 | | 1 | 1 unit | 1CB |
| | | 35 mm | 10 mm | -- | -- | -- | ✓ | | 3VA9403-0QA00 | | 1 | 1 unit | 1CB |
|  3VA9204-0QA00 | **Lug terminal** Included in scope of supply: • 4 single terminals | 17 mm | 6.5 mm | ✓ | -- | -- | -- | | 3VA9114-0QA00 | | 1 | 1 unit | 1CB |
| | | 25 mm | 8 mm | -- | ✓ | -- | -- | | 3VA9214-0QA00 | | 1 | 1 unit | 1CB |
| | | 25 mm | 8 mm | -- | -- | ✓ | -- | | 3VA9204-0QA00 | | 1 | 1 unit | 1CB |
| | | 35 mm | 10 mm | -- | -- | -- | ✓ | | 3VA9404-0QA00 | | 1 | 1 unit | 1CB |

4

* You can order this quantity or a multiple thereof.

## Connection parts – suitable for all installation types (fixed mounting, plug-in and draw-out versions)

| | Version | Minimum mm² for stranded cable | Maximum mm² for stranded cable | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Bar extensions suitable for all installation types (fixed mounting, plug-in and draw-out versions)** | | | | | | | | | | | | | |
|  3VA9263-0QB00 | **Front connection bars extended** Included in scope of supply: • 3 single terminals • 2 phase barriers | 22 mm | 8 mm | ✓ | -- | -- | -- | | **3VA9153-0QB00** | | 1 | 1 unit | 1CB |
| | | 32 mm | 10 mm | -- | ✓ | -- | -- | | **3VA9253-0QB00** | | 1 | 1 unit | 1CB |
| | | 32 mm | 10 mm | -- | -- | ✓ | -- | | **3VA9263-0QB00** | | 1 | 1 unit | 1CB |
| | | 40 mm | 12.5 mm | -- | -- | -- | ✓ | | **3VA9483-0QB00** | | 1 | 1 unit | 1CB |
|  3VA9264-0QB00 | **Front connection bars extended** Included in scope of supply: • 4 single terminals • 3 phase barriers | 22 mm | 8 mm | ✓ | -- | -- | -- | | **3VA9154-0QB00** | | 1 | 1 unit | 1CB |
| | | 32 mm | 10 mm | -- | ✓ | -- | -- | | **3VA9254-0QB00** | | 1 | 1 unit | 1CB |
| | | 32 mm | 10 mm | -- | -- | ✓ | -- | | **3VA9264-0QB00** | | 1 | 1 unit | 1CB |
| | | 40 mm | 12.5 mm | -- | -- | -- | ✓ | | **3VA9484-0QB00** | | 1 | 1 unit | 1CB |
|  3VA9263-0QC00 | **Front connection bars broadened** Included in scope of supply: • 3 single terminals • 2 phase barriers Distance between pole centers: 100/160 A = 35 mm 250 A = 45 mm 400/630 A = 70 mm | 30 mm | 8 mm | ✓ | -- | -- | -- | | **3VA9153-0QC00** | | 1 | 1 unit | 1CB |
| | | 35 mm | 10 mm | -- | ✓ | -- | -- | | **3VA9253-0QC00** | | 1 | 1 unit | 1CB |
| | | 35 mm | 10 mm | -- | -- | ✓ | -- | | **3VA9263-0QC00** | | 1 | 1 unit | 1CB |
| | | 60 mm | 12.5 mm | -- | -- | -- | ✓ | | **3VA9483-0QC00** | | 1 | 1 unit | 1CB |
|  3VA9264-0QC00 | **Front connection bars broadened** Included in scope of supply: • 4 single terminals • 3 phase barriers Distance between pole centers: 100/160 A = 35 mm 250 A = 45 mm 400/630 A = 70 mm | 30 mm | 8 mm | ✓ | -- | -- | -- | | **3VA9154-0QC00** | | 1 | 1 unit | 1CB |
| | | 35 mm | 10 mm | -- | ✓ | -- | -- | | **3VA9254-0QC00** | | 1 | 1 unit | 1CB |
| | | 35 mm | 10 mm | -- | -- | ✓ | -- | | **3VA9264-0QC00** | | 1 | 1 unit | 1CB |
| | | 60 mm | 12.5 mm | -- | -- | -- | ✓ | | **3VA9484-0QC00** | | 1 | 1 unit | 1CB |
|  3VA9263-0QD00 | **Front connection bars edgewise** Included in scope of supply: • 3 single terminals • 2 phase barriers | 20 mm | 6 mm | ✓ | -- | -- | -- | | **3VA9153-0QD00** | | 1 | 1 unit | 1CB |
| | | 25 mm | 7 mm | -- | ✓ | -- | -- | | **3VA9253-0QD00** | | 1 | 1 unit | 1CB |
| | | 25 mm | 7 mm | -- | -- | ✓ | -- | | **3VA9263-0QD00** | | 1 | 1 unit | 1CB |
| | | 40 mm | 8 mm | -- | -- | -- | ✓ | | **3VA9483-0QD00** | | 1 | 1 unit | 1CB |
|  3VA9264-0QD00 | **Front connection bars edgewise** Included in scope of supply: • 4 single terminals • 3 phase barriers | 20 mm | 6 mm | ✓ | -- | -- | -- | | **3VA9154-0QD00** | | 1 | 1 unit | 1CB |
| | | 25 mm | 7 mm | -- | ✓ | -- | -- | | **3VA9254-0QD00** | | 1 | 1 unit | 1CB |
| | | 25 mm | 7 mm | -- | -- | ✓ | -- | | **3VA9264-0QD00** | | 1 | 1 unit | 1CB |
| | | 40 mm | 8 mm | -- | -- | -- | ✓ | | **3VA9484-0QD00** | | 1 | 1 unit | 1CB |





* You can order this quantity or a multiple thereof.

## Connection parts – suitable for all installation types (fixed mounting, plug-in and draw-out versions)

| | Version | Max. terminal width | Max. busbar thickness | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
|  3VA9223-0QG00 | **Lug terminal, right-angled**[1] Included in scope of supply: • 3 single terminals • 2 phase barriers | 22 mm | 8 mm | ✓ | -- | -- | -- | | 3VA9113-0QG00 | | 1 | 1 unit | 1CB |
| | | 32 mm | 10 mm | -- | ✓ | -- | -- | | 3VA9213-0QG00 | | 1 | 1 unit | 1CB |
| | | 32 mm | 10 mm | -- | -- | ✓ | -- | | 3VA9223-0QG00 | | 1 | 1 unit | 1CB |
| | | 40 mm | 12.5 mm | -- | -- | -- | ✓ | | 3VA9403-0QG00 | | 1 | 1 unit | 1CB |
|  3VA9224-0QG00 | **Lug terminal, right-angled**[1] Included in scope of supply: • 4 single terminals • 3 phase barriers | 22 mm | 8 mm | ✓ | -- | -- | -- | | 3VA9114-0QG00 | | 1 | 1 unit | 1CB |
| | | 32 mm | 10 mm | -- | ✓ | -- | -- | | 3VA9214-0QG00 | | 1 | 1 unit | 1CB |
| | | 32 mm | 10 mm | -- | -- | ✓ | -- | | 3VA9224-0QG00 | | 1 | 1 unit | 1CB |
| | | 40 mm | 12.5 mm | -- | -- | -- | ✓ | | 3VA9404-0QG00 | | 1 | 1 unit | 1CB |

[1] Can only be connected to breaker side N,1,3,5

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Rear flat terminals suitable for all installation types (fixed mounting, plug-in and draw-out versions)** | | | | | | | | | | | |
|  3VA9203-0QE00 | **Rear terminal flat** Included in scope of supply: • 2 short terminals flat • 1 long terminal flat | ✓ | -- | -- | -- | | 3VA9113-0QE00 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9213-0QE00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9203-0QE00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9403-0QE00 | | 1 | 1 unit | 1CB |
|  3VA9204-0QE00 | **Rear terminal flat** Included in scope of supply: • 2 short terminals flat • 2 long terminals flat | ✓ | -- | -- | -- | | 3VA9114-0QE00 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9214-0QE00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9204-0QE00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9404-0QE00 | | 1 | 1 unit | 1CB |
|  3VA9201-0QE10 | **Rear terminal flat** Included in scope of supply: • 1 short terminal flat | ✓ | -- | -- | -- | | 3VA9111-0QE10 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9211-0QE10 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9201-0QE10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9401-0QE10 | | 1 | 1 unit | 1CB |
|  3VA9201-0QE20 | **Rear terminal flat** Included in scope of supply: • 1 long terminal flat | ✓ | -- | -- | -- | | 3VA9111-0QE20 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9211-0QE20 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9201-0QE20 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9401-0QE20 | | 1 | 1 unit | 1CB |



* You can order this quantity or a multiple thereof.

## Connection parts – suitable for all installation types (fixed mounting, plug-in and draw-out versions)

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Rear connecting stud terminals suitable for all installation types (fixed mounting, plug-in and draw-out versions)** | | | | | | | | | | | |
|  3VA9203-0QF00 | **Rear connecting stud**<br>Included in scope of supply:<br>• 1 long connecting stud<br>• 2 short connecting studs | ✓ | -- | -- | -- | | 3VA9113-0QF00 | | 1 | 1 unit | 1CB |
| | | | ✓ | -- | -- | | 3VA9213-0QF00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9203-0QF00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9403-0QF00 | | 1 | 1 unit | 1CB |
|  3VA9204-0QF00 | **Rear connecting stud**<br>Included in scope of supply:<br>• 2 long connecting studs<br>• 2 short connecting studs | ✓ | -- | -- | -- | | 3VA9114-0QF00 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9214-0QF00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9204-0QF00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9404-0QF00 | | 1 | 1 unit | 1CB |
|  3VA9201-0QF10 | **Rear connecting stud**<br>Included in scope of supply:<br>• 1 short connecting stud | ✓ | -- | -- | -- | | 3VA9111-0QF10 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9211-0QF10 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9201-0QF10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9401-0QF10 | | 1 | 1 unit | 1CB |
|  3VA9111-0QF20 | **Rear connecting stud**<br>Included in scope of supply:<br>• 1 long connecting stud | ✓ | -- | -- | -- | | 3VA9111-0QF20 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9211-0QF20 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9201-0QF20 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9401-0QF20 | | 1 | 1 unit | 1CB |
| **Phase barriers suitable for all installation types (fixed mounting, plug-in and draw-out versions)** | | | | | | | | | | | |
|  3VA9262-0WA00 | **Phase barriers**<br>Included in scope of supply:<br>• 2 phase barriers | ✓ | -- | -- | -- | | 3VA9152-0WA00 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9252-0WA00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9262-0WA00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9482-0WA00 | | 1 | 1 unit | 1CB |





* You can order this quantity or a multiple thereof.

| | Version | Minimum mm² for stranded cable | Maximum mm² for stranded cable | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Front connection bars specially for fixed mounting** | | | | | | | | | | | | | |
|  3VA9151-0QB00 | **Front connection bars extended**<br>Included in scope of supply:<br>• 1 busbar connection piece | 32 mm | 10 mm | ✓ | -- | -- | -- | | 3VA9151-0QB00 | | 1 | 1 unit | 1CB |
|  3VA9152-0QC00 | **Front connection bars broadened**<br>Included in scope of supply:<br>• 2 individual busbar connection pieces<br>• 1 phase barriers<br>Note<br>Distance between pole centers 44.6 mm | 35 mm | 10 mm | ✓ | -- | -- | -- | | 3VA9152-0QC00 | | 1 | 1 unit | 1CB |
| **Circular conductor terminals specially for fixed mounting** | | | | | | | | | | | | | |
|  3VA9112-0JJ12 | **Circular conductor terminal, large**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>2 single terminals and<br>1 extended terminal cover | 25 mm² | 150 mm² | ✓ | -- | -- | -- | | 3VA9112-0JJ12 | | 1 | 1 unit | 1CB |
|  3VA9113-0JJ12 | **Circular conductor terminal, large**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>3 single terminals and<br>1 extended terminal cover | 25 mm² | 150 mm² | ✓ | -- | -- | -- | | 3VA9113-0JJ12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | ✓ | -- | -- | | 3VA9213-0JJ13 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | -- | ✓ | -- | | 3VA9223-0JJ13 | | 1 | 1 unit | 1CB |
|  3VA9114-0JJ12 | **Circular conductor terminal, large**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>4 single terminals and<br>1 extended terminal cover | 25 mm² | 150 mm² | ✓ | -- | -- | -- | | 3VA9114-0JJ12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | ✓ | -- | -- | | 3VA9214-0JJ13 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | -- | ✓ | -- | | 3VA9224-0JJ13 | | 1 | 1 unit | 1CB |
|  3VA9112-0JC12 | **Circular conductor terminal, large, with auxiliary conductor terminal**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>2 single terminals and<br>1 extended terminal cover | 25 mm² | 150 mm² | ✓ | -- | -- | -- | | 3VA9112-0JC12 | | 1 | 1 unit | 1CB |

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## Connection parts – specially for fixed mounting

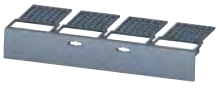
| | Version | Minimum mm² for stranded cable | Maximum mm² for stranded cable | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
|  3VA9223-0JC13 | **Circular conductor terminal, large, with auxiliary conductor terminal**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>3 single terminals and<br>1 extended terminal cover | 25 mm² | 150 mm² | ✓ | -- | -- | -- | | 3VA9113-0JC12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | ✓ | -- | -- | | 3VA9213-0JC13 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | -- | ✓ | -- | | 3VA9223-0JC13 | | 1 | 1 unit | 1CB |
|  3VA9114-0JC12 | **Circular conductor terminal, large, with auxiliary conductor terminal**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>4 single terminals and<br>1 extended terminal cover | 25 mm² | 150 mm² | ✓ | -- | -- | -- | | 3VA9114-0JC12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | ✓ | -- | -- | | 3VA9214-0JC13 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | -- | ✓ | -- | | 3VA9224-0JC13 | | 1 | 1 unit | 1CB |
|  3VA9223-0JJ22 | **Circular conductor terminal, 2 cables**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>3 single terminals and<br>1 extended terminal cover | 2 x 25 mm² | 2 x 150 mm² | -- | ✓ | -- | -- | | 3VA9213-0JJ22 | | 1 | 1 unit | 1CB |
| | | 2 x 25 mm² | 2 x 150 mm² | -- | -- | ✓ | -- | | 3VA9223-0JJ22 | | 1 | 1 unit | 1CB |
| | | 2 x 70 mm² | 2 x 300 mm² | -- | -- | -- | ✓ | | 3VA9403-0JJ23 | | 1 | 1 unit | 1CB |
|  3VA9224-0JJ22 | **Circular conductor terminal, 2 cables**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>4 single terminals and<br>1 extended terminal cover | 2 x 25 mm² | 2 x 150 mm² | -- | ✓ | -- | -- | | 3VA9214-0JJ22 | | 1 | 1 unit | 1CB |
| | | 2 x 25 mm² | 2 x 150 mm² | -- | -- | ✓ | -- | | 3VA9224-0JJ22 | | 1 | 1 unit | 1CB |
| | | 2 x 70 mm² | 2 x 300 mm² | -- | -- | -- | ✓ | | 3VA9404-0JJ23 | | 1 | 1 unit | 1CB |
|  3VA9223-0JC22 | **Circular conductor terminal, 2 cables, with auxiliary conductor terminal**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>3 single terminals and<br>1 extended terminal cover | 2 x 25 mm² | 2 x 150 mm² | -- | ✓ | -- | -- | | 3VA9213-0JC22 | | 1 | 1 unit | 1CB |
| | | 2 x 25 mm² | 2 x 150 mm² | -- | -- | ✓ | -- | | 3VA9223-0JC22 | | 1 | 1 unit | 1CB |
| | | 2 x 70 mm² | 2 x 300 mm² | -- | -- | -- | ✓ | | 3VA9403-0JC23 | | 1 | 1 unit | 1CB |
|  3VA9224-0JC22 | **Circular conductor terminal, 2 cables, with auxiliary conductor terminal**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>4 single terminals and<br>1 extended terminal cover | 2 x 25 mm² | 2 x 150 mm² | -- | ✓ | -- | -- | | 3VA9214-0JC22 | | 1 | 1 unit | 1CB |
| | | 2 x 25 mm² | 2 x 150 mm² | -- | -- | ✓ | -- | | 3VA9224-0JC22 | | 1 | 1 unit | 1CB |
| | | 2 x 70 mm² | 2 x 300 mm² | -- | -- | -- | ✓ | | 3VA9404-0JC23 | | 1 | 1 unit | 1CB |
|  3VA9112-0JF60 | **Circular conductor terminal, 6 cables**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>2 single terminals and<br>1 extended terminal cover | 6 x 1.5 mm² | 6 x 35 mm² | ✓ | -- | -- | -- | | 3VA9112-0JF60 | | 1 | 1 unit | 1CB |



* You can order this quantity or a multiple thereof.

## Connection parts – specially for fixed mounting

| | Version | Minimum mm² for stranded cable | Maximum mm² for stranded cable | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
|  3VA9223-0JF60 | **Circular conductor terminal, 6 cables**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>3 single terminals and<br>1 extended terminal cover | 6 x 1.5 mm² | 6 x 35 mm² | ✓ | -- | -- | -- | | 3VA9113-0JF60 | | 1 | 1 unit | 1CB |
| | | | | -- | ✓ | -- | -- | | 3VA9213-0JF60 | | 1 | 1 unit | 1CB |
| | | | | -- | -- | ✓ | -- | | 3VA9223-0JF60 | | 1 | 1 unit | 1CB |
| | | | | -- | -- | -- | ✓ | | 3VA9303-0JF60 | | 1 | 1 unit | 1CB |
|  3VA9224-0JF60 | **Circular conductor terminal, 6 cables**<br>• Connection of Cu/Al cable<br>• Included in scope of supply:<br>4 single terminals and<br>1 extended terminal cover | 6 x 1.5 mm² | 6 x 35 mm² | ✓ | -- | -- | -- | | 3VA9114-0JF60 | | 1 | 1 unit | 1CB |
| | | | | -- | ✓ | -- | -- | | 3VA9214-0JF60 | | 1 | 1 unit | 1CB |
| | | | | -- | -- | ✓ | -- | | 3VA9224-0JF60 | | 1 | 1 unit | 1CB |
| | | | | -- | -- | -- | ✓ | | 3VA9304-0JF60 | | 1 | 1 unit | 1CB |

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Terminal covers specially for fixed mounting** | | | | | | | | | | | |
|  3VA9111-0WD10 | **Terminal cover for 1-pole breakers** | ✓ | -- | -- | -- | | 3VA9111-0WD10 | | 1 | 1 unit | 1CB |
|  3VA9111-0WD20 | **Terminal cover for 2-pole breakers** | ✓ | -- | -- | -- | | 3VA9111-0WD20 | | 1 | 1 unit | 1CB |
|  3VA9221-0WD30 | **Terminal cover for 3-pole breakers** | ✓ | -- | -- | -- | | 3VA9111-0WD30 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9211-0WD30 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9221-0WD30 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9481-0WD30 | | 1 | 1 unit | 1CB |
|  3VA9221-0WD40 | **Terminal cover for 4-pole breakers** | ✓ | -- | -- | -- | | 3VA9111-0WD40 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9211-0WD40 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9221-0WD40 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9481-0WD40 | | 1 | 1 unit | 1CB |
|  3VA9111-0WF20 | **Extended terminal cover, 2-pole** | ✓ | -- | -- | -- | | 3VA9111-0WF20 | | 1 | 1 unit | 1CB |

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* You can order this quantity or a multiple thereof.

## Connection parts – specially for fixed mounting

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
|  3VA9221-0WF30 | **Extended terminal cover for 3-pole breakers** | ✓ | -- | -- | -- | | **3VA9111-0WF30** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | **3VA9211-0WF30** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9221-0WF30** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9481-0WF30** | | 1 | 1 unit | 1CB |
|  3VA9221-0WF40 | **Extended terminal cover for 4-pole breakers** | ✓ | -- | -- | -- | | **3VA9111-0WF40** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | **3VA9211-0WF40** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9221-0WF40** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9481-0WF40** | | 1 | 1 unit | 1CB |
|  3VA9221-0WG30 | **Broadened terminal cover for 3-pole breakers** | ✓ | -- | -- | -- | | **3VA9111-0WG30** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | **3VA9211-0WG30** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9221-0WG30** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9401-0WG30** | | 1 | 1 unit | 1CB |
|  3VA9221-0WG40 | **Broadened terminal cover for 4-pole breakers** | ✓ | -- | -- | -- | | **3VA9111-0WG40** | | 1 | 1 unit | 1CB |
| | | | ✓ | -- | -- | | **3VA9211-0WG40** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9221-0WG40** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9401-0WG40** | | 1 | 1 unit | 1CB |
| **Insulating plates specially for fixed mounting** | | | | | | | | | | | |
|  3VA9111-0WJ20 | **Insulating plate, 2-pole** | ✓ | -- | -- | -- | | **3VA9111-0WJ20** | | 1 | 1 unit | 1CB |
|  3VA9221-0WJ30 | **Insulating plate, 3-pole** | ✓ | -- | -- | -- | | **3VA9111-0WJ30** | | 1 | 1 unit | 1CB |
| | | | ✓ | | | | **3VA9211-0WJ30** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9221-0WJ30** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9481-0WJ30** | | 1 | 1 unit | 1CB |
|  3VA9221-0WJ40 | **Insulating plate, 4-pole** | ✓ | -- | -- | -- | | **3VA9111-0WJ40** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | **3VA9211-0WJ40** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9221-0WJ40** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9481-0WJ40** | | 1 | 1 unit | 1CB |

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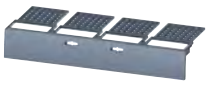
* You can order this quantity or a multiple thereof.

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
|  3VA9221-0WK30 | **Insulating plate broadened, 3-pole** | ✓ | -- | -- | -- | | **3VA9111-0WK30** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | **3VA9211-0WK30** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9221-0WK30** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9481-0WK30** | | 1 | 1 unit | 1CB |
|  3VA9221-0WK40 | **Insulating plate broadened, 4-pole** | ✓ | -- | -- | -- | | **3VA9111-0WK40** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | **3VA9211-0WK40** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9221-0WK40** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9481-0WK40** | | 1 | 1 unit | 1CB |
| **Auxiliary conductor terminals specially for fixed mounting** | | | | | | | | | | | |
|  3VA9200-0WB00 | **Auxiliary conductor terminal for box terminal** | ✓ | -- | -- | -- | | **3VA9110-0WB00** | | 1 | 10 units | 1CB |
| | | -- | ✓ | ✓ | -- | | **3VA9200-0WB00** | | 1 | 10 units | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9480-0WB00** | | 1 | 10 units | 1CB |
|  3VA9200-0WC00 | **Auxiliary conductor terminal for busbar** | ✓ | -- | -- | -- | | **3VA9110-0WC00** | | 1 | 10 units | 1CB |
| | | -- | ✓ | ✓ | -- | | **3VA9200-0WC00** | | 1 | 10 units | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9480-0WC00** | | 1 | 10 units | 1CB |
| **DC Insulating plate specially for fixed mounting** | | | | | | | | | | | |
|  3VA9113-0SG10 | **DC insulating plate for 3VA1** | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • For fixed-mounted molded case circuit breakers | | | | | | | | | | |
| | - 3-pole | ✓ | -- | -- | -- | | **3VA9113-0SG10** | | 1 | 10 units | 1CB |
| | - 4-pole | ✓ | -- | -- | -- | | **3VA9114-0SG10** | | 1 | 10 units | 1CB |
| **Side plate specially for fixed mounting** | | | | | | | | | | | |
|  3VA9112-0SG20 | **Side plate for 3VA1** | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • For fixed-mounted molded case circuit breakers | | | | | | | | | | |
| | - 2-pole | ✓ | -- | -- | -- | | **3VA9112-0SG20** | | 1 | 5 units | 1CB |

4

* You can order this quantity or a multiple thereof.

## Connection methods – specially for plug-in and draw-out units

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Terminal covers specially for plug-in and draw-out units** | | | | | | | | | | | |
| | **Terminal cover for plug-in/draw-out unit (spare part)**<br>• To provide circuit breaker touch protection<br>• For mounting on the molded case circuit breaker | | | | | | | | | | |
| | Versions | | | | | | | | | | |
|  | • 3-pole | ✓ | -- | -- | -- | | 3VA9113-0KB01 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9213-0KB01 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9123-0KB01 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9353-0KB01 | | 1 | 1 unit | 1CB |
|  <br>3VA9123-0KB01 | • 4-pole | ✓ | | -- | -- | | 3VA9114-0KB01 | | 1 | 1 unit | 1CB |
|  | | -- | ✓ | -- | -- | | 3VA9214-0KB01 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9124-0KB01 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9354-0KB01 | | 1 | 1 unit | 1CB |
|  <br>3VA9124-0KB01 | | | | | | | | | | | |
| | **Terminal cover for plug-in or draw-out socket**<br>• For touch protection in the termination area of the plug-in or draw-out socket<br>• For mounting on the plug-in or draw-out socket | | | | | | | | | | |
| | Versions | | | | | | | | | | |
|  | • 3-pole | ✓ | -- | -- | -- | | 3VA9153-0KB03 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9253-0KB03 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9163-0KB03 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9353-0KB03 | | 1 | 1 unit | 1CB |
|  <br>3VA9154-0KB03 | • 4-pole | ✓ | -- | -- | -- | | 3VA9154-0KB03 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9254-0KB03 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9164-0KB03 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9354-0KB03 | | 1 | 1 unit | 1CB |
| | **Terminal cover, extended for plug-in or draw-out socket**<br>• For touch protection in the termination area of the plug-in or draw-out socket<br>• For mounting on the plug-in or draw-out socket | | | | | | | | | | |
| | Versions | | | | | | | | | | |
|  | • 3-pole | ✓ | -- | -- | -- | | 3VA9153-0KB04 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9253-0KB04 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9163-0KB04 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9353-0KB04 | | 1 | 1 unit | 1CB |
|  <br>3VA9154-0KB04 | • 4-pole | ✓ | -- | -- | -- | | 3VA9154-0KB04 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9254-0KB04 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9164-0KB04 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9354-0KB04 | | 1 | 1 unit | 1CB |

## Connection methods – specially for plug-in and draw-out units

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| | **Terminal cover, broadened, for plug-in or draw-out socket**<br>• For touch protection in the termination area of the plug-in or draw-out socket<br>• For mounting on the plug-in or draw-out socket | | | | | | | | | | |
| | Versions | | | | | | | | | | |
|  3VA9153-0KB05 | • 3-pole | ✓ | -- | -- | -- | | 3VA9153-0KB05 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9253-0KB05 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9163-0KB05 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9353-0KB05 | | 1 | 1 unit | 1CB |
|  3VA9154-0KB05 | • 4-pole | ✓ | -- | -- | -- | | 3VA9154-0KB05 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9254-0KB05 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9164-0KB05 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9354-0KB05 | | 1 | 1 unit | 1CB |

| | Version | Minimum mm² for stranded cable | Maximum mm² for stranded cable | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 3VA1 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Circular conductor terminals specially for plug-in and draw-out units** | | | | | | | | | | | | | |
|  3VA9153-0JC12 | **Circular conductor terminal, large, with auxiliary conductor terminal**<br>Included in scope of supply:<br>3 single terminals and<br>1 extended terminal cover | 25 mm² | 150 mm² | ✓ | -- | -- | -- | | 3VA9153-0JC12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | ✓ | -- | -- | | 3VA9253-0JC13 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | -- | ✓ | -- | | 3VA9263-0JC13 | | 1 | 1 unit | 1CB |
|  3VA9154-0JC12 | **Circular conductor terminal, large, with auxiliary conductor terminal**<br>Included in scope of supply:<br>4 single terminals and<br>1 extended terminal cover | 25 mm² | 150 mm² | ✓ | -- | -- | -- | | 3VA9154-0JC12 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | ✓ | -- | -- | | 3VA9254-0JC13 | | 1 | 1 unit | 1CB |
| | | 50 mm² | 240 mm² | -- | -- | ✓ | -- | | 3VA9264-0JC13 | | 1 | 1 unit | 1CB |

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*** You can order this quantity or a multiple thereof.**

## Connection methods – specially for plug-in and draw-out units

| | Version | Minimum mm² for stranded cable | Maximum mm² for stranded cable | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 3VA1 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
|  3VA9263-0JC22 | **Circular conductor terminal, 2 cables, with auxiliary conductor terminal** Included in scope of supply: 3 single terminals and 1 extended terminal cover | 2 x 25 mm² | 2 x 150 mm² | -- | ✓ | -- | -- | | 3VA9253-0JC22 | | 1 | 1 unit | 1CB |
| | | 2 x 25 mm² | 2 x 150 mm² | -- | -- | ✓ | -- | | 3VA9263-0JC22 | | 1 | 1 unit | 1CB |
| | | 2 x 70 mm² | 2 x 300 mm² | -- | -- | -- | ✓ | | 3VA9483-0JC23 | | 1 | 1 unit | 1CB |
|  3VA9264-0JC22 | **Circular conductor terminal, 2 cables, with auxiliary conductor terminal** Included in scope of supply: 4 single terminals and 1 extended terminal cover | 2 x 25 mm² | 2 x 150 mm² | -- | ✓ | -- | -- | | 3VA9254-0JC22 | | 1 | 1 unit | 1CB |
| | | 2 x 25 mm² | 2 x 150 mm² | -- | -- | ✓ | -- | | 3VA9264-0JC22 | | 1 | 1 unit | 1CB |
| | | 2 x 70 mm² | 2 x 300 mm² | -- | -- | -- | ✓ | | 3VA9484-0JC23 | | 1 | 1 unit | 1CB |
|  3VA9153-0JF60 | **Circular conductor terminal, 6 cables** Included in scope of supply: 3 single terminals and 1 extended terminal cover | 6 x 1.5 mm² | 6 x 35 mm² | ✓ | -- | -- | -- | | 3VA9153-0JF60 | | 1 | 1 unit | 1CB |
| | | 6 x 1.5 mm² | 6 x 35 mm² | -- | ✓ | -- | -- | | 3VA9253-0JF60 | | 1 | 1 unit | 1CB |
| | | 6 x 1.5 mm² | 6 x 35 mm² | -- | -- | ✓ | -- | | 3VA9263-0JF60 | | 1 | 1 unit | 1CB |
| | | 6 x 1.5 mm² | 6 x 35 mm² | -- | -- | -- | ✓ | | 3VA9383-0JF60 | | 1 | 1 unit | 1CB |
|  3VA9154-0JF60 | **Circular conductor terminal, 6 cables** Included in scope of supply: 4 single terminals and 1 extended terminal cover | 6 x 1.5 mm² | 6 x 35 mm² | ✓ | -- | -- | -- | | 3VA9154-0JF60 | | 1 | 1 unit | 1CB |
| | | 6 x 1.5 mm² | 6 x 35 mm² | -- | ✓ | -- | -- | | 3VA9254-0JF60 | | 1 | 1 unit | 1CB |
| | | 6 x 1.5 mm² | 6 x 35 mm² | -- | -- | ✓ | -- | | 3VA9264-0JF60 | | 1 | 1 unit | 1CB |
| | | 6 x 1.5 mm² | 6 x 35 mm² | -- | -- | -- | ✓ | | 3VA9384-0JF60 | | 1 | 1 unit | 1CB |
| **Auxiliary conductor terminals specially for plug-in and draw-out units** | | | | | | | | | | | | | |
|  3VA9280-0WB00 | **Auxiliary conductor terminal for box terminal** | | | ✓ | -- | -- | -- | | 3VA9150-0WB00 | | 1 | 10 units | 1CB |
| | | | | -- | ✓ | ✓ | -- | | 3VA9280-0WB00 | | 1 | 10 units | 1CB |
| | | | | -- | -- | -- | ✓ | | 3VA9480-0WB00 | | 1 | 10 units | 1CB |
|  3VA9280-0WC00 | **Auxiliary conductor terminal for busbar** | | | ✓ | -- | -- | -- | | 3VA9150-0WC00 | | 1 | 10 units | 1CB |
| | | | | -- | ✓ | ✓ | -- | | 3VA9280-0WC00 | | 1 | 10 units | 1CB |
| | | | | -- | -- | -- | ✓ | | 3VA9480-0WC00 | | 1 | 10 units | 1CB |

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* You can order this quantity or a multiple thereof.

## Overview

Using plug-in and draw-out technology the 3VA molded case circuit breakers can be installed/removed or replaced quickly and safely. In this case, the cables or busbars of the main current paths are connected to the connectors of the plug-in socket or the draw-out socket.

The termination areas of the sockets for these versions are designed in the same way as those of the molded case circuit breakers but, due to the different requirements for creepages and clearances, have slightly different dimensions.

This means that all connections without insulating measures (e.g. box terminals) from the range of breakers can also be used with the socket for plug-in or draw-out units.

Connections with insulating measures have their own article numbers and are listed below.

A 3VA molded case circuit breaker in the plug-in or draw-out version has plug-in contacts on the input and load side of the main terminals. When the circuit breaker is plugged or moved into the socket, the plug-in contacts slide into the socket-side tulip contacts and connect the main current paths with the circuit breaker. In addition, auxiliary circuit connectors can be used to connect the auxiliary and control signals from the internal accessories of the molded case circuit breaker to the outside.

The main differences between plug-in units and draw-out units are convenience of operation and the potential for functional expansion.

### *Plug-in technology*

Plug-in technology is the less expensive and more space-saving of the two solutions. The plug-in version of the molded case circuit breaker is equipped with plug-in contacts on the back of the 3VA molded case circuit breaker. These make a friction-locked and keyed connection with the corresponding mating connectors in the plug-in socket. The plug-in unit can be supplied as a complete kit or as a conversion kit for breakers including screw-fastened terminal covers.

### *Draw-out technology*

Draw-out versions of the molded case circuit breaker are also equipped with plug-in contacts at the main current paths. In addition, side walls including guide and support bolts are bolted to the sides of the molded case circuit breaker. With this version, the mating component is the draw-out socket. It is also equipped with a guide mechanism via which the molded case circuit breaker is moved into the draw-out socket by means of a handle in order to connect the breaker to the main circuits. The operator can clearly read from a position indicator whether the breaker is properly connected to the main circuits or safely isolated from them (so that it can be withdrawn).

Position signaling switches which transmit the position information CONNECT, TEST, and DISCONNECT can be integrated in the right-hand side wall of the draw-out unit. A special set of position signaling switches transfers the position data to the COM060 communication module via a preassembled wires.

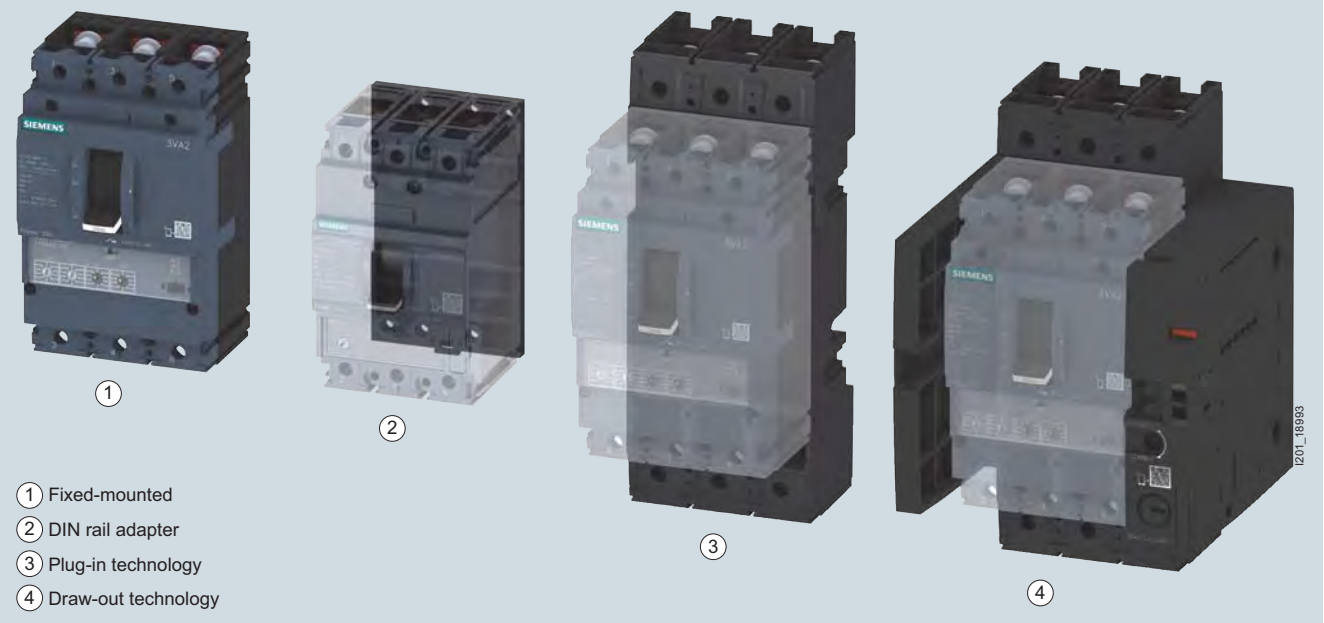
The draw-out complete kit as well as the draw-out conversion kit for one breaker are available. Both kits include screw-fastened terminal covers for the breaker. The crank handle for the draw-out unit must be ordered separately.

## Benefits

- Molded case circuit breakers can be replaced quickly and easily for the purpose of overhaul or servicing
- Electrical isolation and clearly visible isolating distance
- Socket can be interlocked to prevent the 3VA molded case circuit breaker from being plugged in or moved in
- Identical connection technology for all molded case circuit breakers, whether they are plug-in, draw-out or fixed-mounted units
- Test of the auxiliary and control circuit connections in the test position of the draw-out unit possible without contacted main current paths

Installation variants

3VA molded case circuit breakers are available in the following installation variants:




1 Fixed-mounted
2 DIN rail adapter
3 Plug-in technology
4 Draw-out technology

4

## Selection and ordering data

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 160 A | 3VA1 250 A | 3VA2 100 A, 160 A, 250 A | 3VA2 400 A, 630 A | | | | | | |
| **Plug-in socket** | | | | | | | | | | | |
| | **Plug-in unit, complete kit**<br>Comprising:<br>• Plug-in socket<br>• Conversion sets<br>• Mounting screw kit | | | | | | | | | | |
| | Versions | | | | | | | | | | |
|  <br>3VA9123-0KP00 | • 3-pole | ✓ | -- | -- | -- | | 3VA9113-0KP00 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9213-0KP00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9123-0KP00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9323-0KP00 | | 1 | 1 unit | 1CB |
|  <br>3VA9124-0KP00 | • 4-pole | ✓ | -- | -- | -- | | 3VA9114-0KP00 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9214-0KP00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9124-0KP00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9324-0KP00 | | 1 | 1 unit | 1CB |
| | **Plug-in unit, conversion kit**<br>Comprising:<br>• Screw-fastened terminal covers for molded case circuit breakers<br>• Plug-in contacts<br>• Cable cage<br>• Autotrip plunger | | | | | | | | | | |
| | Versions | | | | | | | | | | |
|  <br>3VA9123-0KP10 | • 3-pole | ✓ | -- | -- | -- | | 3VA9113-0KP10 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9213-0KP10 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9123-0KP10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9323-0KP10 | | 1 | 1 unit | 1CB |
|  <br>3VA9124-0KP10 | • 4-pole | ✓ | -- | -- | -- | | 3VA9114-0KP10 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9214-0KP10 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9124-0KP10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9324-0KP10 | | 1 | 1 unit | 1CB |

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* You can order this quantity or a multiple thereof.

## Draw-out units

| | Version | For molded case circuit breakers/frame size 3VA1 160 A | 3VA1 250 A | 3VA2 100 A, 160 A, 250 A | 3VA2 400 A, 630 A | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Draw-out unit, complete kit**<br>Comprising:<br>• Draw-out socket<br>• Conversion sets<br>• Mounting screw kit | | | | | | | | | | |
| | Versions | | | | | | | | | | |
|  <br>3VA9123-0KD00 | • 3-pole | -- | ✓ | -- | -- | | 3VA9213-0KD00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9123-0KD00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9323-0KD00 | | 1 | 1 unit | 1CB |
|  <br>3VA9124-0KD00 | • 4-pole | -- | ✓ | -- | -- | | 3VA9214-0KD00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9124-0KD00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9324-0KD00 | | 1 | 1 unit | 1CB |
| | **Draw-out unit, conversion kit**<br>Conversion kit comprising:<br>• Screw-fastened terminal covers for molded case circuit breakers<br>• Side wall<br>• Plug-in contacts<br>• Cable cage<br>• Autotrip plunger | | | | | | | | | | |
| | Versions | | | | | | | | | | |
|  <br>3VA9123-0KD10 | • 3-pole | -- | ✓ | -- | -- | | 3VA9213-0KD10 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9123-0KD10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9323-0KD10 | | 1 | 1 unit | 1CB |
|  <br>3VA9124-0KD10 | • 4-pole | -- | ✓ | -- | -- | | 3VA9214-0KD10 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9124-0KD10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9324-0KD10 | | 1 | 1 unit | 1CB |

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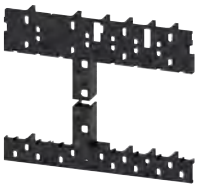
## Plug-in and draw-out technology

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 160 A | 3VA1 250 A | 3VA2 100 A 160 A, 250 A | 3VA2 400 A, 630 A | | | | | | |
| **Cable cage** | | | | | | | | | | | |
|  3VA9167-0KB02 | **Cable cage for plug-in/draw-out unit 3-/4-pole (spare part)** Cable duct for routing of the required cables from the internal accessories on the back of the circuit breaker | ✓ | -- | -- | -- | | 3VA9157-0KB02 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9257-0KB02 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9167-0KB02 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9367-0KB02 | | 1 | 1 unit | 1CB |
| **Door feedthrough** | | | | | | | | | | | |
|  3VA9167-0KT00 | **Door feedthrough** | -- | ✓ | -- | -- | | 3VA9257-0KT00 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9167-0KT00 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9367-0KT00 | | 1 | 1 unit | 1CB |

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* You can order this quantity or a multiple thereof.

## Other accessories

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
|  3VA9987-0KC00 | **Communication link for draw-out unit**<br>Comprising:<br>• Cable kit with 3 special position signaling switches<br>• Connecting cable 3VA9987-0KC10 | | | | | | **3VA9987-0KC00** | | 1 | 1 unit | 1CB |
|  3VA9987-0KB00 | **Position signaling switches**<br>For draw-out unit | | | | | | **3VA9987-0KB00** | | 1 | 1 unit | 1CB |
|  3VA9987-0KC10 | **Spare connecting cable**<br>To connect the position signaling switches for communication with the COM060 | | | | | | **3VA9987-0KC10** | | 1 | 1 unit | 1CB |
|  3VA9987-0KD81 | **Crank handle for draw-out unit**<br>Insulated, incl. crank holder | | | | | | **3VA9987-0KD81** | | 1 | 1 unit | 1CB |
|  3VA9987-0KD80 | **Auxiliary circuit connector** | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • For all draw-out units | | | | | | **3VA9987-0KD80** | | 1 | 1 unit | 1CB |
| | • For all plug-in units | | | | | | **3VA9987-0KP80** | | 1 | 1 unit | 1CB |
| | Note | | | | | | | | | | |
| | All auxiliary circuit connectors are designed to connect 4 cables. | | | | | | **3VA9987-0KD80** | | 1 | 1 unit | 1CB |

| | Version | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|
|  3VA9980-0VL10 | **Cylinder lock (type Ronis)**<br>• Includes a lock with 2 keys<br>• For locking<br>• For installation in all rotary operators with shaft stub<br>• For mounting in the adapter kit for the accessories compartment | Key 1 | | **3VA9980-0VL10** | | 1 | 1 unit | 1CB |
| | | Key 2 | | **3VA9980-0VL20** | | 1 | 1 unit | 1CB |
| | | Key 3 | | **3VA9980-0VL30** | | 1 | 1 unit | 1CB |
| | | Key 4 | | **3VA9980-0VL40** | | 1 | 1 unit | 1CB |
|  3VA9980-0LF40 | **Cylinder lock adapter for draw-out unit**<br>• For fitting a cylinder lock in the right-hand side wall of the draw-out unit<br>• To prevent unauthorized withdrawal or insertion of the circuit breaker into the draw-out unit<br>• Circuit breaker can be locked in the CONNECT, TEST and DISCONNECT positions | | | **3VA9980-0LF40** | | 1 | 1 unit | 1CB |

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* You can order this quantity or a multiple thereof.

## Overview

Residual current devices can be used to prevent or reduce hazardous residual currents that could cause injury to personnel and livestock, and damage to property. These are available as accessory components for the 3VA series up to the largest circuit breaker size. The new portfolio of residual current devices of the 3VA series includes three different RCD designs so that an optimum solution is available for every conceivable type of application: mounted below, mounted on the side, and modular. All residual current devices detect both purely sinusoidal AC residual currents as well as pulsating DC residual currents (type A), and the combination of molded case circuit breakers or switch disconnectors with mounted residual current devices complies with IEC 60947-2 Annex B, while the combination with modular residual current devices complies with IEC 60947-2 Annex M.

### *Residual current devices "Basic" type*

The residual current devices of the "Basic" type can be combined with the 3VA1 molded case circuit breakers or switch disconnectors. The following features characterize these devices:

- Compact design
- 45 mm cover size
- LEDs for signaling "ready" state and pre-alarms
- Tripped signal at device and via electrical contacts
- Deliberate acknowledgment following a trip via a reset push-button on the residual current device

RCD310 and RCD510 are suitable for side mounting on the thermal-magnetic trip unit, and versions RCD320 and RCD520 are mounted below the breaker. On the residual current devices of the 5-series (RCD5..), tripping can be delayed by up to three seconds so that in the event of a fault, only the branch containing the fault is switched off by means of appropriate selective grading of the series-switched residual current devices. The device types of the 3-series (RCD3..) are instantaneous versions, in other words, they trip immediately for the 3VA1 160 A molded case circuit breaker. They can be supplied as 4-pole versions.

RCD310 and RCD510

The RCD310 or RCD510 units are specially designed for the infrastructure market. This is reflected in the design: they have a compact L-shaped design, the operator controls and displays are in a 45 mm cover size, DIN rail mounting is possible, and the combination of breaker and residual current device has a depth of 70 mm and thus fits optimally into a distribution board.

The RCD310/RCD510 can be combined with the 3VA1 molded case circuit breaker and the switch disconnector. They are mounted on the left side of the breaker. Through-hole technology enables direct connection of the cable to the box terminal. There is no need for time-consuming wiring of the breaker-residual current device combination. In the event of a residual current, the breaker is tripped by an RCR (residual current release) built into the left accessories compartment of the breaker and is included in the scope of delivery. However, this RCR can also be used by means of a floating contact as a shunt trip independently of the residual current device.

RCD510

RCD320 and RCD520

The RCD320 or RCD520 can be installed below the trip unit of the 3VA1 molded case circuit breaker. Equipping the molded case circuit breaker fully with internal accessories is easy because with these residual current devices, the molded case circuit breaker is tripped by a tappet that is already integrated into the residual current device and the circuit breaker. Following a trip, the molded case circuit breaker cannot be closed again until the residual current device has been reset via its reset button. Since the outgoing feeder end of the residual current device has exactly the same connection contours as the molded case circuit breaker, all connection accessories such as phase barriers, terminal covers, etc. can also be mounted on the residual current device.

RCD520

### *Residual current devices "Advanced" type*

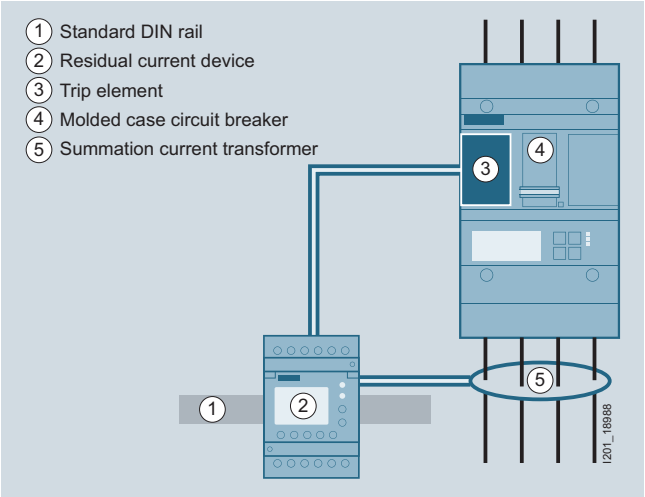
RCD820

The "Advanced" residual current devices of the type RCD820 are accessory components for the 3 and 4-pole 3VA2 molded case circuit breakers with electronic trip unit, and they can detect residual currents of type A to 10 A, and type AC to 30 A. Here, the range of functions has been significantly increased in comparison to the residual current devices of the Basic type. Thus, the RCD820 can be integrated into a communication system via which important status, diagnostics, maintenance and identification data can be queried, and commands issued. And not only that. This data can also be forwarded to a PLC or LED via the host of auxiliary contacts on the device. LEDs for signaling the "ready" state of the residual current device, the communication connection, and the two pre-alarms on the residual current device provide information on the current status on-site. Thanks to an innovative tripping concept, it is also possible to use the RCD820 purely as a display unit, so that residual currents do not result in shutdown, but instead are only indicated.

RCD820

### *Modular residual current device*

As well as a residual current device mounted direct on the breaker, an external solution is also available. The modular solution, comprising a residual current device 5SV8101-6KK, a separate summation current transformer (5SV8702-0KK, 5SV8703-0KK, 5SV8704-0KK, 5SV8705-0KK, 5SV8706-0KK), and a trip element, has been tested in accordance with IEC 60947-2 Annex M, and can be combined with all 3VA1 and 3VA2 molded case circuit breakers. You can find out the suitable combinations on request. The residual current device is supplied with an external auxiliary voltage of 230 V~. Appropriate summation current transformers with varying diameters are offered for the different rated breaker currents. Depending on the application, it is possible to use an undervoltage release or a shunt trip as the trip element. If the trip element is omitted, the combination of residual current device and summation current transformer works purely as a display unit.




Modular residual current device

## Benefits

### *RCD310 and RCD510*

- Increased packaging density in the cubicle thanks to the compact L-shaped design
- Through-hole technology saves inconvenient wiring of the breaker and the residual current device
- Mounting of a DIN rail adapter enables attachment to a DIN rail
- Side-by-side arrangement with miniature circuit breakers possible thanks to 45 mm cover size
- Function of a shunt trip automatically integrated by RCR dual functionality
- Deliberate acknowledgment of a residual current prevents unintentional restart
- Can be used purely as a display unit

### *RCD320 and RCD520*

- Compact design saves space in the cubicle
- Deliberate acknowledgment of a residual current prevents unintentional restart

### *RCD820*

- Communication connection or alternatively electrical contacts ensure fast status messages – even remotely
- Advanced RCD820 is also suitable for use as a display unit
- Staggered pre-alarms prevent/avoid plant downtimes
- Local presence not required thanks to remote test, acknowledgment and commissioning of the RCD820 via electrical contacts or communication

### *Modular residual current device*

- Modular design allows mounting on different breaker designs (e.g. 1, 2, 3 and 4-pole breakers)
- Reuse in the event of a change of application ensures cost savings
- Time savings thanks to simple upgrading of the residual current functionality in an existing plant
- Especially suitable for use where installation space is restricted

## Selection and ordering data

| | Version | For molded case circuit breakers/ frame size 3VA1 160 A | 3VA1 250 A | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|
| **Side mounted residual current devices RCD for 3VA1** | | | | | | | | | |
| | **Type A** (pulse current sensitive)<br>• Mounted on the side (left)<br>• Trip element (RCR) included in the scope of delivery<br>• Can be mounted on molded case circuit breakers and switch disconnectors with box terminal<br>• $U_e$ = 127 - 480 V AC, 50/60 Hz | | | | | | | | |
| | Note<br>If the molded case circuit breaker has no box terminals as connections, a set of box terminals must be ordered additionally. | | | | | | | | |
|  3VA9114- 0RS10 | **RCD310**<br>• 4-pole<br>• Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 A; default: 30 mA<br>• Instantaneous (INS) | ✓ | -- | | **3VA9114- 0RS10** | | 1 | 1 unit | 1CB |
|  3VA9113-0RS20 | **RCD510**<br>• Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 A; default: 30 mA<br>• Delay time, adjustable: $t$ = instantaneous (INS) - 0.06 - 0.15 - 0.3 - 0.5 - 1 - 2 - 3 s; default: instantaneous (INS) | | | | | | | | |
| | Versions | | | | | | | | |
| | • 3-pole | ✓ | -- | | **3VA9113-0RS20** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | | **3VA9213-0RS20** | | 1 | 1 unit | 1CB |
| | • 4-pole | ✓ | -- | | **3VA9114-0RS20** | | 1 | 1 unit | 1CB |
|  3VA9114-0RS20 | | -- | ✓ | | **3VA9214-0RS20** | | 1 | 1 unit | 1CB |
| | **Type A** (pulse current sensitive)<br>• Mounted below (under trip unit)<br>• Can be mounted on molded case circuit breakers<br>• $U_e$ = 127 - 480 V AC, 50/60 Hz | | | | | | | | |
|  3VA9114-0RL10 | **RCD320**<br>• 4-pole<br>• Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0,1 - 0,3 - 0,5 - 1 - 3 - 5 A; default: 30 mA<br>• Instantaneous (INS) | ✓ | -- | | **3VA9114-0RL10** | | 1 | 1 unit | 1CB |
|  3VA9113-0RL20 | **RCD520**<br>• Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 A; default: 30 mA<br>• Delay time, adjustable: $t$ = instantaneous (INS) - 0.06 - 0.15 - 0.3 - 0.5 - 1 - 2 - 3 s; default: instantaneous (INS) | | | | | | | | |
| | Versions | | | | | | | | |
| | • 3-pole | ✓ | -- | | **3VA9113-0RL20** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | | **3VA9213-0RL20** | | 1 | 1 unit | 1CB |
| | • 4-pole | ✓ | -- | | **3VA9114-0RL20** | | 1 | 1 unit | 1CB |
|  3VA9114-0RL20 | | -- | ✓ | | **3VA9214-0RL20** | | 1 | 1 unit | 1CB |

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* You can order this quantity or a multiple thereof.

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA2 100 A 160 A | 3VA2 250 A | 3VA2 400 A | 3VA2 630 A | | | | | | |
| **Residual current devices RCD for 3VA2** | | | | | | | | | | | |
| | **Type A** (pulse current sensitive)<br>• Mounted below (under trip unit)<br>• With energy infeed from below, the required auxiliary switch (AUX) must be ordered separately.<br>• $U_e$ = 127 - 690 V AC, 50/60 Hz | | | | | | | | | | |
|  <br>3VA9123-0RL30 | **RCD820**<br>• Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 - 10 - 30 A; default: 30 mA<br>• Delay time, adjustable: $t$ = 0 - 0.06 - 0.15 - 0.3 - 0.5 - 1 - 2 - 3 - 5 - 10 s; default: instantaneous (INS)<br>• Note: 30 A setting range only for type AC applications | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • 3-pole | ✓ | -- | -- | -- | | **3VA9123-0RL30** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | **3VA9223-0RL30** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9323-0RL30** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9423-0RL30** | | 1 | 1 unit | 1CB |
|  <br>3VA9124-0RL30 | • 4-pole | ✓ | -- | -- | -- | | **3VA9124-0RL30** | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | **3VA9224-0RL30** | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | **3VA9324-0RL30** | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | **3VA9424-0RL30** | | 1 | 1 unit | 1CB |

4

*** You can order this quantity or a multiple thereof.**

## Overview

### *Metering function*

The Rogowski coils integrated in the 3VA2 molded case circuit breakers are capable of delivering particularly accurate current measurements. An additional voltage tap is integrated in molded case circuit breakers equipped with an 8-series ETU, which means that energy data can also be measured – the 3VA2 molded case circuit breaker therefore offers a range of metering functions similar to those available with the tried-and-tested 7KM PAC measuring device!

An external current transformer for N conductors is available to allow direct measurement of the neutral conductor current with 3-pole molded case circuit breakers. When the 3-pole circuit breaker is installed in the 4-pole network, it is advisable to deploy the voltage tap at the neutral conductor so that the neutral point of the voltage network can be fixed.

### *Communication via the COM800/COM100 breaker data server*

The 3VA2 molded case circuit breaker utilizes an innovative, modern communication concept. This concept is based on the COM800 breaker data server which can link up to eight molded case circuit breakers to different bus systems. For applications involving only one 3VA2 molded case circuit breaker, the COM100 is an ideal alternative to the COM800 breaker data server.

The COM060 communication module in the molded case circuit breaker is wired via a T-Connector to the COM800/COM100 breaker data server. Integrated as standard in the COM800/COM100 breaker data server is an Ethernet interface with the Modbus TCP protocol to allow communication with powerconfig and the powermanager. Optional communication modules can be installed to provide different communication protocols. An additional benefit of this structure is that the communication costs per molded case circuit breaker decrease with every further circuit breaker that is connected to the COM800 breaker data server.

The communication equipment for the molded case circuit breakers can be installed and connected extremely easily, reliably and efficiently thanks to the connector system used. The 24 V DC supply to the electronic trip units is also reliably provided by these connections. The breaker data server utilizes independent supplementary functions to deliver valuable information about the connected molded case circuit breakers and the power distribution system.

Flexible communication thanks to optional expansion modules

With COM800/COM100, the 3VA2 molded case circuit breakers can be integrated into the relevant communication networks via the following optional expansion modules:

- Switched Ethernet PROFINET IO
- PROFIBUS DPV1
- RS 485 / Modbus RTU

GSDML or GSD files are also available for PROFINET and PROFIBUS for integration into the engineering system, e.g. STEP 7.

### *DSP800 display*

The DSP800 display can be used to show breaker information (status, measured values, parameters) on the cubicle door. It communicates via the integral Ethernet interface with the COM800/COM100 and is thus able to display the data of up to 8 3VA2 molded case circuit breakers simultaneously.

### *EFB300 external function box*

The EFB300 external function box is linked directly to the ETU of the 3VA2 molded case circuit breaker by a cable. It provides four digital outputs and one digital input. The powerconfig software can be used to set which information is to be output from the ETU via the four digital outputs:

- All reasons for tripping, categorized according to LSING
- Overload alarms AL1 and AL2
- Pre-trip alarm from overload protection system
- Load shedding and load pick-up
- Temperature alarm
- Output of an energy pulse (S0 signal), in combination with an 8-series ETU only

A zone selective interlocking functionality (ZSI) can also be implemented via the module.

Note:

A TD500 or the COM060 and COM800/COM100 combination is needed to program a change in the output assignments with powerconfig.

### *TD300 and TD500 test devices*

The TD300 activation and trip box is a mobile, battery-operated local test device. One of its functions is to provide a temporary power supply to the Electronic Trip Units (ETUs) so that they can be operated and parameterized. It is also used to test the tripping function of the molded case circuit breaker.

The TD500 mobile test device allows the proper functioning and connections of all connected system components to be tested at the breaker commissioning stage because it is capable of simulating every conceivable cause of breaker tripping. The molded case circuit breaker responds as if the emergency were real – it trips in accordance with the set parameters and transmits all alarm and trip signals to the connected components.

The TD500 test device can be used as a hand-held tester or in conjunction with a PC. In the latter case, the TD500 test device is connected to the PC via a supplied USB cable and acts as a gateway to the 3VA2 molded case circuit breaker. Using the powerconfig software, it is possible to read out or modify the setting parameters of the molded case circuit breaker and monitor the measured values.

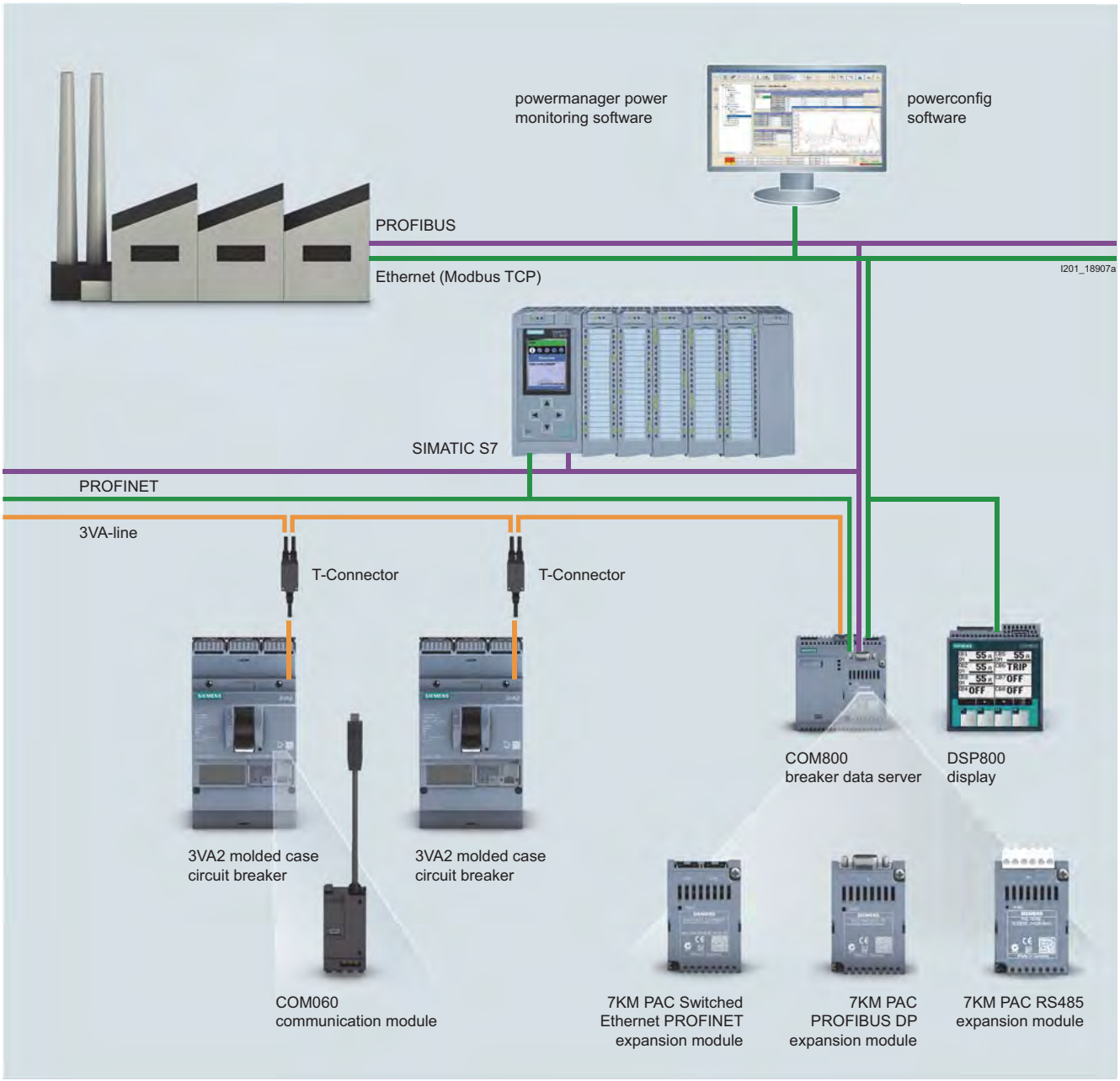
## Benefits

- The metering function integrated in 8-series ETUs can acquire energy data without requiring additional external transformers
- The COM800 breaker data server provides a cost-efficient communication interface for up to 8 3VA2 molded case circuit breakers
- Universal bus interfaces are available for the COM800/COM100 breaker data server
- Universal S0 interface for the output of energy pulses
- 100 test results can be stored with the TD500 test device
- Status and measured values of up to 8 molded case circuit breakers are displayed in the cubicle door using the DSP800



* You can order this quantity or a multiple thereof.

## Design


powermanager power monitoring software
powerconfig software
PROFIBUS
Ethernet (Modbus TCP)
I201_18907a
SIMATIC S7
PROFINET
3VA-line
T-Connector
T-Connector
COM800 breaker data server
DSP800 display
3VA2 molded case circuit breaker
3VA2 molded case circuit breaker
COM060 communication module
7KM PAC Switched Ethernet PROFINET expansion module
7KM PAC PROFIBUS DP expansion module
7KM PAC RS485 expansion module

## Communication and testing/commissioning devices

### Technical specifications

#### *Overview of the setting values*

| Setting values[1] | | | ETUs of the 5-series | ETUs of the 8-series | Display In ETU | Display DSP800 | Communication COM800 / COM100 |
|---|---|---|---|---|---|---|---|
| **Overload protection** | | | | | | | |
| Current | $I_r$ | A | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| Delay time | $t_r$ | s | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| Switch thermal memory on/off | ThM | | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| **Short-time delayed short-circuit protection** | | | | | | | |
| Current | $I_{sd}$ | A | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| Delay time | $t_{sd}$ | s | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| Characteristic curve in S range | $I^2t_{sd}$ | | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| Zone selective interlocking | ZSI | | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| **Instantaneous short-circuit protection** | | | | | | | |
| Current | $I_i$ | A | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| **Overload protection in the neutral conductor** | | | | | | | |
| Current | $I_N$ | A | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| **Ground-fault protection** | | | | | | | |
| Current | $I_g$ | A | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| Delay time | $t_g$ | s | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| Characteristic curve | $I^2t_g$ | | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |
| Alarm current | $I_{gA}$ | A | ✓ | ✓ | 👁 ✎ | 👁 | 👁 ✎ |

[1] Depending on ETU version

#### *Overview of the metering functions*

| Metering function[1] | | | ETUs of the 5-series | ETUs of the 8-series | Display In ETU | Display DSP800 | Communication COM800 / COM100 |
|---|---|---|---|---|---|---|---|
| **Current** | | | | | | | |
| Phase and neutral conductor currents | $I_1$,$I_2$,$I_3$,$I_N$ | A | ✓ | ✓ | 👁 | 👁 | 👁 |
| Residual current to ground | $I_g$ | A | ✓ | ✓ | 👁 | 👁 | 👁 |
| Phase with highest load | | A | ✓ | ✓ | 👁 | 👁 | 👁 |
| Mean value over the three phase currents | $I_{LAVG}= (I_1+I_2+I_3)/3$ | A | -- | ✓ | -- | 👁 | 👁 |
| Asymmetry of the phase currents | $I_{nba}$ | % | -- | ✓ | -- | 👁 | 👁 |
| THD of the 3 phases | $THDI_1$, $THDI_2$, $THDI_3$ | % | -- | ✓ | -- | 👁 | 👁 |
| **Voltage** | | | | | | | |
| Phase voltages incl. mean value | $U_{12}$, $U_{23}$, $U_{31}$, $U_{phavg}$ | V | -- | ✓ | 👁 | 👁 | 👁 |
| Voltages to N conductor incl. mean value | $U_{1N}$, $U_{2N}$, $U_{3N}$, $U_{Navg}$ | V | -- | ✓ | -- | 👁 | 👁 |
| Asymmetry of the voltages | | % | -- | ✓ | -- | 👁 | 👁 |
| THD phase/phase and phase/N | $THDI_1$, $THDI_2$, $THDI_3$ | % | -- | ✓ | -- | 👁 | 👁 |
| **Power** | | | | | | | |
| Active power, total and per phase | $P_1$, $P_2$, $P_3$, $P_{tot}$ | kW | -- | ✓ | 👁 ($P_{tot}$) | 👁 | 👁 |
| Apparent power, total and per phase | $S_1$, $S_2$, $S_3$, $S_{tot}$ | kVA | -- | ✓ | -- | 👁 | 👁 |
| Reactive power, total and per phase | $Q_1$, $Q_2$, $Q_3$, $Q_{tot}$ | kVAr | -- | ✓ | 👁 | 👁 | 👁 |
| Fundamental power factor | $PF_1$, $PF_2$, $PF_3$, $PF_{avg}$ | | -- | ✓ | 👁 ($PF_{avg}$) | 👁 | 👁 |
| **Energy** | | | | | | | |
| Active energy, infeed and feedback | $E_p$ | kWh | -- | ✓ | 👁 | 👁 | 👁 |
| Reactive energy, infeed and feedback | $E_q$ | kVArh | -- | ✓ | -- | 👁 | 👁 |
| Apparent energy | $E_s$ | kVAh | -- | ✓ | -- | 👁 | 👁 |
| **Frequency** | | | | | | | |
| Present frequency | f | Hz | -- | ✓ | 👁 | 👁 | 👁 |
| **Maximum pointer function** | | | | | | | |
| Min/max current, voltage, power | with time stamp | | -- | -- | -- | -- | 👁 |

[1] Depending on ETU version

✓ Available -- Not available

👁 Can be displayed ✎ Can be edited

### *Overview of status, diagnostics and maintenance*

| Status, diagnostics and maintenance[1] | | ETUs of the 5-series | ETUs of the 8-series | Display In ETU | Display DSP800 | Communication COM800 / COM100 |
|---|---|---|---|---|---|---|
| Breaker status | On, Off, TRIP | ✓ | ✓ | -- | 👁 | 👁 |
| Currently pending alarm messages | | ✓ | ✓ | 👁 | 👁 | 👁 |
| Reason for last trip | | ✓ | ✓ | 👁 | 👁 | 👁 |
| Event Log | • of the last 100 events | ✓ | ✓ | -- | 👁 | 👁 |
| | • of the last 10 trips | ✓ | ✓ | -- | 👁 | 👁 |
| | • of the last 100 switching operations | ✓ | ✓ | -- | 👁 | 👁 |
| Maintenance information | • Trip counter after LSIG trips | ✓ | ✓ | -- | 👁 | 👁 |
| | • Operating hours counter | ✓ | ✓ | -- | 👁 | 👁 |
| | • Switching cycle counter | ✓ | ✓ | -- | 👁 | 👁 |
| Position in the draw-out unit | | ✓ | ✓ | -- | 👁 | 👁 |
| Temperature | | ✓ | ✓ | -- | 👁 | 👁 |

[1] Depending on ETU version

### *Overview of identification*

| Identification | | ETUs of the 5-series | ETUs of the 8-series | Display In ETU | Display DSP800 | Communication COM800 / COM100 |
|---|---|---|---|---|---|---|
| Identification data of the breaker | • Article No. | ✓ | ✓ | -- | 👁 | 👁 |
| | • Rated operational current, number of poles, $I_{cu}$ | ✓ | ✓ | -- | 👁 | 👁 |
| HW/FW version | | ✓ | ✓ | -- | -- | 👁 |

### *Overview of power management functions*

| Power management functions | | | ETUs of the 5-series | ETUs of the 8-series | Display In ETU | Display DSP800 | Communication COM800 / COM100 |
|---|---|---|---|---|---|---|---|
| Power demand values of the last demand period | Active, reactive and apparent power in fixed block or rolling block | 5 ... 60 min | -- | ✓ | -- | 👁 | 👁 |
| Energy pulse output | S0 signal at EFB output | | -- | ✓ | -- | -- | -- |
| Load monitoring | Load shedding/load pick-up, output via EFB | | ✓ | ✓ | -- | 👁 | 👁 |
| Threshold value parameters | 10 freely adjustable monitoring parameters | | ✓ | ✓ | -- | 👁 | 👁 |

✓ Available -- Not available

👁 Can be displayed ✎ Can be edited

### *Accuracy specifications*

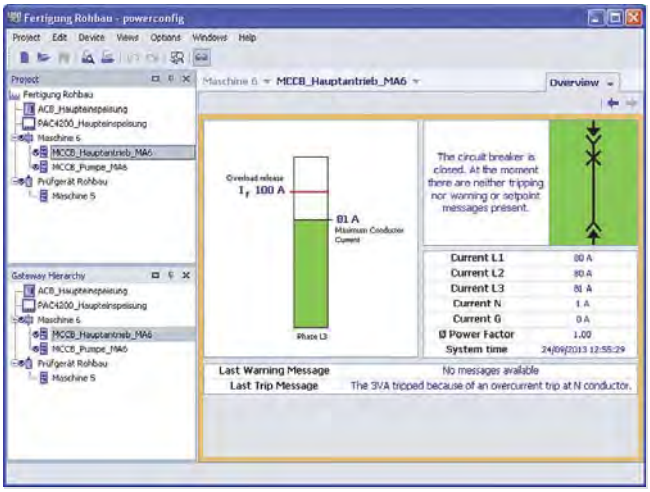
Accuracy levels of the specified measured values of the 8-series ETU, including the integrated current sensors:

| Measured value | Accuracy |
|---|---|
| Current | 1 % in the range from 0.2 ... 1.2 $I_n$ |
| Voltage | 1 % in the range from 80 ... 800 V |
| Active power, active energy | Class 2 acc. to IEC 61557-12 |

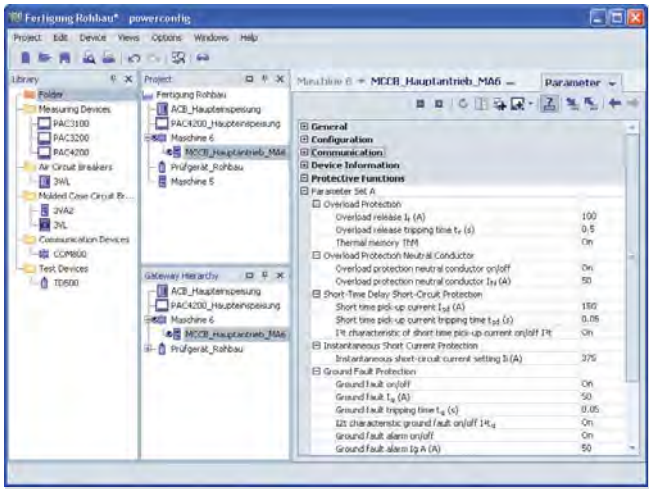
## Communication and testing/commissioning devices

### *powerconfig*

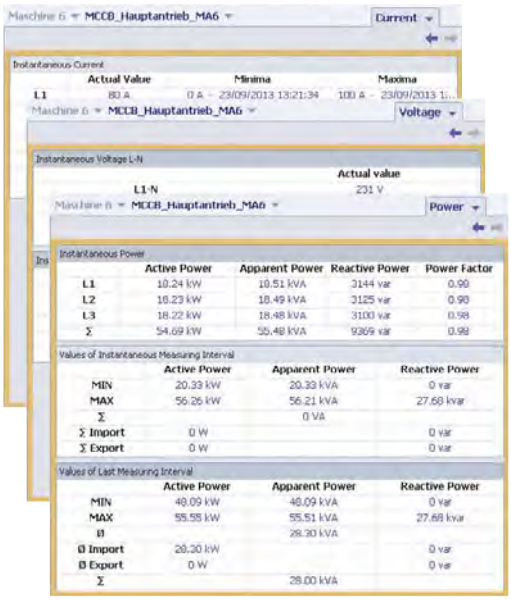
| The powerconfig software for commissioning | |
|---|---|
| | Software tool for the efficient commissioning and diagnosis of communication-capable components |
| License | Free use |
| Supported devices | 3VA2 molded case circuit breakers, 7KM PAC3100/3200/4200 measuring devices, incl. expansion modules, 3WL/3VL circuit breakers |
| General range of functions | The PC-based tool facilitates parameterization of the devices, resulting in substantial time savings, particularly when several devices have to be set up. The device settings can be stored in the PC and printed out. The tool enables monitoring of instantaneous measured quantities, which can be printed out if required. Execution of specific device functions, such as resetting of devices and setting of energy counters |
| Supported languages | German, English, Chinese, Portuguese, Spanish |
| Service functions | Firmware updates and switching of language packs for 7KM PAC measuring devices |
| Function range with 3VA2 | • Parameterization of all electronic 3VA2 components, e.g.:<br>- ETUs 5-series and 8-series<br>- COM800/COM100 breaker data servers<br>- EFB300 (External Function Box).<br>• Support of test functions using the TD500 test device for all ETUs<br>- Archiving of the tests<br>- Archiving of the parameter settings<br>• Read-out/setup/upload and download of the protection parameters<br>• Information about the current breaker status<br>• Read-out of diagnostics information<br>• Display of the current measured values of the 3VA2 |




powerconfig interface, here for representing the switching state and load of the 3VA2 molded case circuit breaker




Setting of parameter values




Display of actual measured quantities

## Selection and ordering data

| | Version | For molded case circuit breakers/ frame size 3VA2 100 A 160 A, 250 A | For molded case circuit breakers/ frame size 3VA2 400 A, 630 A | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|
| **24 V module** | | | | | | | | | |
|  3VA9187-0TB50 | **24 V module**<br>• 24 V DC<br>• For mounting in the right accessories compartment of the 3VA2<br>• Optional energy supply for the ETU, also includes continuous operation of the ETU display and the metering function of the ETU 8-series | ✓ | -- | | 3VA9187-0TB50 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | | 3VA9387-0TB50 | | 1 | 1 unit | 1CB |
| **Communication accessories in the molded case circuit breaker** | | | | | | | | | |
|  3VA9187-0TB10 | **COM060 communication module**<br>• For mounting in the right-hand accessories compartment of the 3VA2 molded case circuit breaker (including ETU power supply)<br>• Communication with the COM800/COM100 breaker data server via the 3VA-line<br>• Including a T-Connector | ✓ | -- | | 3VA9187-0TB10 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | | 3VA9387-0TB10 | | 1 | 1 unit | 1CB |
| **Breaker data server** | | | | | | | | | |
|  3VA9987-0TA10 | **COM800 breaker data server**<br>• 2 terminating resistors<br>• Central communication module for connecting up to eight 3VA2 molded case circuit breakers via the 3VA-line<br>• Ethernet 10/100 Mbit/s interface<br>• Module slot for plugging on an optional PROFIBUS DP or PROFINET module | | | | 3VA9987-0TA10 | | 1 | 1 unit | 1CB |
|  3VA9987-0TA20 | **COM100 breaker data server**<br>• 2 terminating resistors<br>• Optimized, central communication module for connecting a 3VA2 molded case circuit breaker via the 3VA-line<br>• Ethernet 10/100 Mbit/s interface<br>• Module slot for plugging on an optional PROFIBUS DP or PROFINET module | | | | 3VA9987-0TA20 | | 1 | 1 unit | 1CB |
|  7KM9300-0AB01-0AA0 | **7KM PAC PROFIBUS DP expansion module**<br>• The 7KM PAC PROFIBUS DP expansion module is used for connecting the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to PROFIBUS DPV1.<br>• The 7KM PAC PROFIBUS DP expansion module provides the status and measured quantities of the 3VA molded case circuit breaker for the PROFIBUS DP master. It receives information (e.g. commands) from the PROFIBUS DP master, and forwards this information to the 3VA molded case circuit breaker. | | | | 7KM9300-0AB01-0AA0 | | 1 | 1 unit | 1DD |
|  7KM9300-0AE01-0AA0 | **7KM PAC Switched Ethernet PROFINET expansion module**<br>• The 7KM PAC Switched Ethernet PROFINET expansion module is used to connect the COM800/COM100 breaker data server, and the connected 3VA molded cased circuit breaker, to PROFINET via two Ethernet interfaces.<br>• The 7KM PAC Switched Ethernet PROFINET expansion module provides the status and measured quantities of the 3VA molded case circuit breaker to PROFINET via the PROFINET IO, PROFIenergy and Modbus TCP protocols. | | | | 7KM9300-0AE01-0AA0 | | 1 | 1 unit | 1DD |
|  7KM9300-0AE01-0AA0 | **7KM PAC RS485 Modbus RTU expansion module**<br>• The 7KM PAC RS485 Modbus expansion module is used to connect the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to Modbus RTU.<br>• The 7KM PAC RS485 Modbus expansion module provides the status and measured quantities of the 3VA molded case circuit breaker for the Modbus RTU master. It receives information (e.g. commands) from the Modbus RTU master, and forwards this information to the 3VA molded case circuit breaker. | | | | 7KM9300-0AM00-0AA0 | | 1 | 1 unit | 1DD |

## Communication and testing/commissioning devices

| | Version | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|
| **Accessories for communication** | | | | | | | |
|  3VA9987-0TG10 | **T-Connector**<br>• Spare part<br>• Provides spur line feeder to COM060 and loops through to the next circuit breaker. | | 3VA9987-0TG10 | | 1 | 1 unit | 1CB |
|  3VA9987-0TC10 | **Preassembled T-Connector-to-T-Connector or T-Connector-to-COM800/COM100 connecting cable** | | | | | | |
| | • 0.4 m long | | 3VA9987-0TC10 | | 1 | 1 unit | 1CB |
| | • 1 m long | | 3VA9987-0TC20 | | 1 | 1 unit | 1CB |
| | • 2 m long | | 3VA9987-0TC30 | | 1 | 1 unit | 1CB |
| | • 4 m long | | 3VA9987-0TC40 | | 1 | 1 unit | 1CB |
|  3VA9987-0TF20 | **Preassembled connecting cable for extending the COM060-to-T-Connector spur line connection** | | | | | | |
| | • 0.4 m long | | 3VA9987-0TF20 | | 1 | 1 unit | 1CB |
| | • 0.8 m long | | 3VA9987-0TF10 | | 1 | 1 unit | 1CB |
|  3VA9987-0TE10 | **Additional bus terminating resistors** | | 3VA9987-0TE10 | | 1 | 5 units | 1CB |
|  3VA9987-0UC10 | **Voltage tap to external N conductor**<br>Cable for connecting the neutral point for the metering function of the 8-series ETU, length 1.5 m | | 3VA9987-0UC10 | | 1 | 1 unit | 1CB |
|  3VA9107-0NA10 | **External current transformer for N conductor**<br>Connection of an external current transformer for the N conductor for 3-pole 3VA2 molded case circuit breakers for 5-series and 8-series ETUs, including connecting cable | • $I_n$ = 25 ... 100 A | 3VA9007-0NA10 | | 1 | 1 unit | 1CB |
| | | • $I_n$ = 160 ... 250 A | 3VA9107-0NA10 | | 1 | 1 unit | 1CB |
| | | • $I_n$ = 400 ... 630 A | 3VA9307-0NA10 | | 1 | 1 unit | 1CB |
| | **Spare part: cable for connecting external current transformer for N conductor** | | 3VA9907-0NB10 | | 1 | 1 unit | 1CB |
| **Displays** | | | | | | | |
|  3VA9987-0TD10 | **DSP800 display**<br>• For displaying the status, measured values and parameters of up to 8 3VA2 molded case circuit breakers<br>• Connection to the COM800/COM100 via Ethernet for displaying information of the COM800/COM100 and the connected 3VA2 molded case circuit breaker | | 3VA9987-0TD10 | | 1 | 1 unit | 1CB |
| **External function box** | | | | | | | |
|  3VA9987-0UA10 | **EFB300**<br>• External function box for connection to the ETU of the 3VA2 molded case circuit breaker<br>• 4 digital outputs for information output<br>• 1 digital input<br>• ZSI functionality<br>• S0 interface<br>• Including cable 1.5 m in length | | 3VA9987-0UA10 | | 1 | 1 unit | 1CB |
| | **Connecting cable for EFB300**<br>Spare part | | | | | | |
| | • Length 1.5 m | | 3VA9987-0UB10 | | 1 | 1 unit | 1CB |
| | • Length 3.0 m | | 3VA9987-0UB20 | | 1 | 1 unit | 1CB |
| | • Length 3.0 m for 3VA2 with EFB and RCD820 | | 3VA9987-0UB30 | | 1 | 1 unit | 1CB |

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* You can order this quantity or a multiple thereof.

| | Version | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|
| **Test devices** | | | | | | | |
|  3VA9987-0MA10 | **TD300**<br>• Connection to the front interface of the ETU<br>• Test device for activating the ETU and triggering a test trip | | 3VA9987-0MA10 | | 1 | 1 unit | 1CB |
|  3VA9987-0MB10 | **TD500**<br>• Connection to the front interface of the ETU<br>• Initiation of various test trips (LSING)<br>• USB interface for connection of a PC using powerconfig<br>• ETU parameterization<br>• Including an external power supply<br>• Including connecting cable to the 3VA2 molded case circuit breaker | | 3VA9987-0MB10 | | 1 | 1 unit | 1CB |
|  3VA9987-0MX10 | **Spare part: external power supply for TD500**<br>Spare part 110 ... 240 V AC | | 3VA9987-0MX10 | | 1 | 1 unit | 1CB |
|  3VA9987-0MY10 | **Spare part: cable for connecting the TD500 to the 3VA2 molded case circuit breaker** | | 3VA9987-0MY10 | | 1 | 1 unit | 1CB |

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* You can order this quantity or a multiple thereof.

## Locking and interlocking

### Overview

With all types of 3VA molded case circuit breakers, a basic distinction is made between:

- Locking of molded case circuit breakers
- Interlocking of molded case circuit breakers

The padlock devices make it possible to lock the 3VA molded case circuit breaker in either the OFF or the ON operating position.

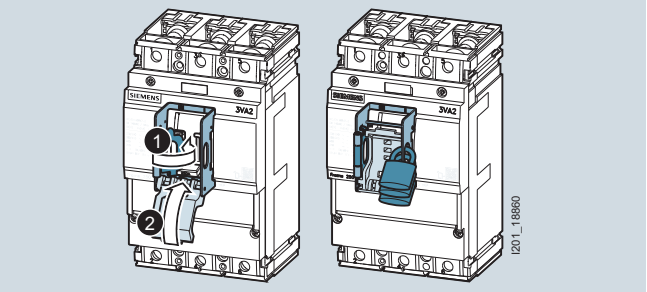
Using the interlocking technology, it is possible to mutually interlock two or more molded case circuit breakers. The interlock system is designed to ensure that no more than one molded case circuit breaker can be operated at a time. The following methods of interlocking can be used on 3VA molded case circuit breakers:

- Front interlock
- Rear interlock

#### *Locking technology*

Padlock device for the handle

A padlock device mounted and latched on the handle allows the 3VA molded case circuit breaker to be locked in the OFF or the ON position.

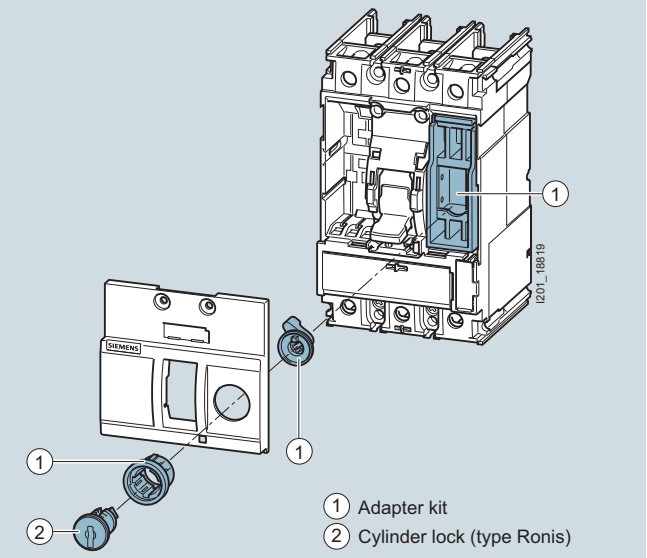



Locking with cylinder lock

The 3VA molded case circuit breaker can also be locked in the OFF (O) or ON (I) position by means of a cylinder lock supplied by Ronis. This prevents further operation of the circuit breaker.

In order to lock a molded case circuit breaker in a specific operating state, the following two components need to be ordered.

- Cylinder lock (type Ronis)
- Lock adapter kit for mounting the cylinder lock in the accessories compartment

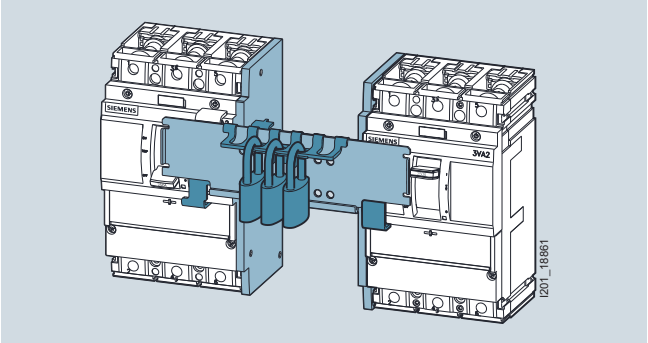



#### *Interlocking technology*

Interlocking by means of a sliding bar

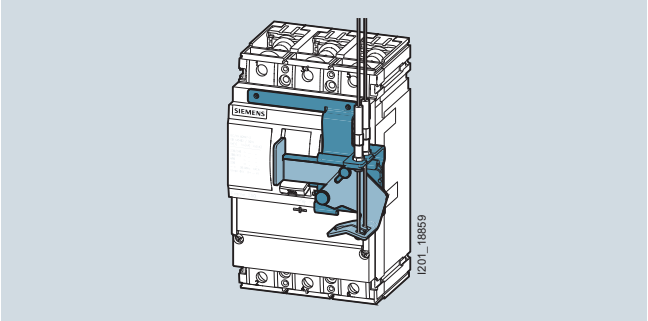
The sliding bar allows between two and three 3VA molded case circuit breakers of the same size to be mutually interlocked by means of a sliding bar.

With this device, the sliding bar is moved to block the handle of the interlocked molded case circuit breaker. For this reason, a molded case circuit breaker is always locked in the safe OFF position, while the released circuit breaker can still be operated.




Handle interlock using a Bowden cable

With the front Bowden cable interlock, it is possible to implement a mutual interlock between two or three molded case circuit breakers of different sizes. The front Bowden cable interlock operates according to the blocking principle. In order to implement this system, modules for the Bowden cable interlock must be mounted on the molded case circuit breakers to be included in the interlock arrangement. Each of these modules is equipped with a slide which blocks or releases operation of the handle.




Interlocking with cylinder locks

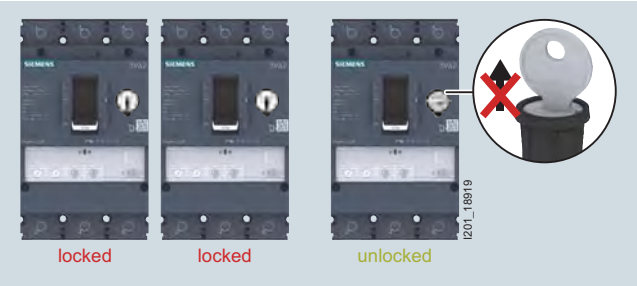
Using the cylinder lock (type Ronis), it is not only possible to lock a molded case circuit breaker, but also to create an interlock between an optional number of molded case circuit breakers of different sizes. To implement an interlocking application using cylinder locks, the adapter kit with the cylinder lock (type Ronis) must be fitted in the right-hand accessories compartment of each molded case circuit breaker to be included in the interlock arrangement and all breakers must be locked in the OFF position. In order to ensure reliable functioning of the interlock, only one key may be used for the entire interlock application! All other keys must be kept or locked away in a safe place. This one key must be used as the release instrument for only one molded case circuit breaker at a time! To release or operate a molded case circuit breaker, the cylinder lock must be turned to the "Unlocked" position with this one particular key. Only then can the handle of the circuit breaker be moved to the ON position. When the cylinder lock is in the "Unlocked" position, the key cannot be removed and must be left in the lock.



*** You can order this quantity or a multiple thereof.**

To implement an interlocking application involving multiple molded case circuit breakers, the following two components must be ordered for each circuit breaker:

- Cylinder lock (type Ronis) with identical key number
- Interlock adapter kit for mounting the cylinder lock in the accessories compartment




Interlocking using an interlocking module in the rotary operator

In addition to the interlocking options described above, it is also possible to mutually interlock molded case circuit breakers with rotary operators of different sizes. This type of interlock can be employed with door mounted rotary operators, side wall mounted rotary operators, front operators and rotary operators with shaft stub or combinations thereof.

For this purpose, a rotary operator interlock module must be fitted in each individual rotary operator of the molded case circuit breakers to be included in the interlock arrangement. The interlocking modules are interconnected by means of Bowden cables in a similar manner to the handle interlock.

Rear interlock

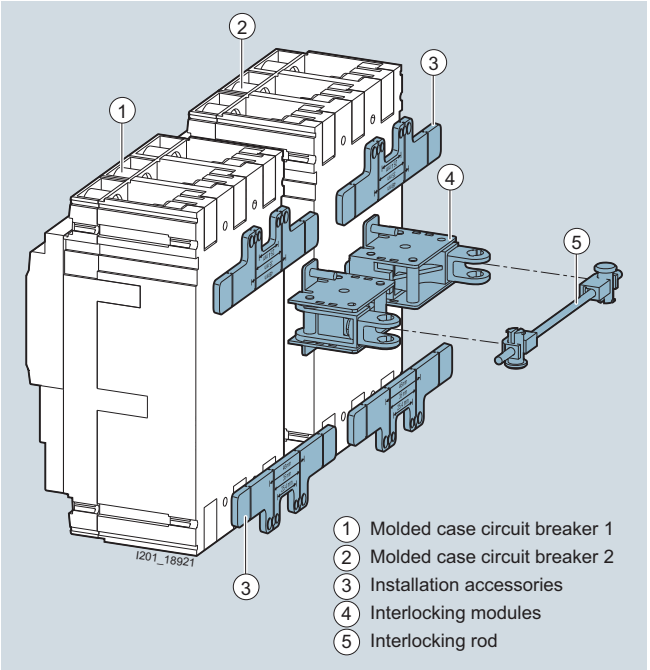
The rear interlock system allows implementation of an interlock without restricting the number of accessories which can be installed at the front of the 3VA molded case circuit breaker. Using the rear interlock, it is possible to create an interlock between two molded case circuit breakers of different sizes based on the blocking principle. When one molded case circuit breaker closes, the other circuit breaker is prevented from closing by a tappet which engages in the breaker mechanism directly from the rear panel of the molded case circuit breaker.

This system requires the installation of two interlocking modules which are mounted behind the molded case circuit breakers and behind the mounting frame of the cubicle. The two interlocking modules are interconnected by means of the interlocking rod.

A mounting plate comprising a plate and two DIN rails is available as an accessory to assist installation.

Rear interlock for plug-in or draw-out units

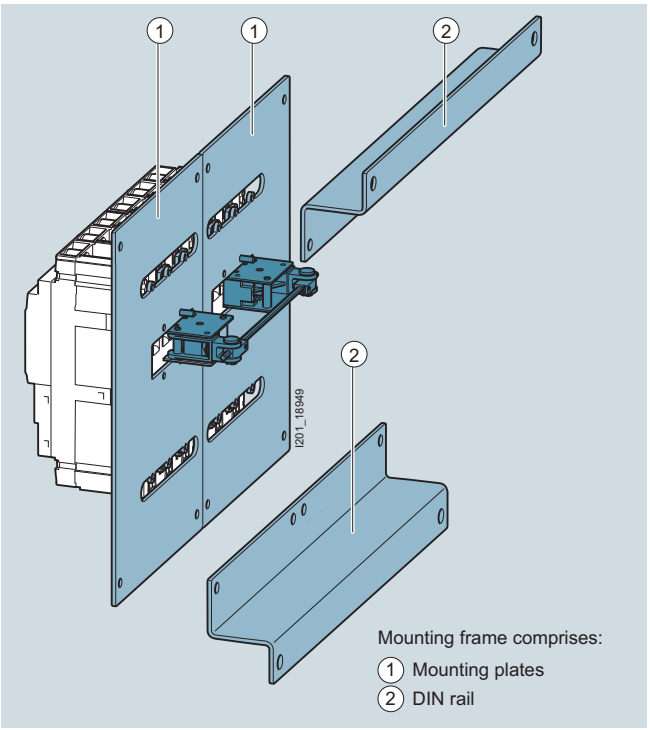
In order to install a rear interlock for plug-in or draw-out versions of the molded case circuit breakers, the tappet needs to be lengthened. The rear interlock for plug-in or draw-out versions is offered as a complete kit.




Rear interlock without mounting frame

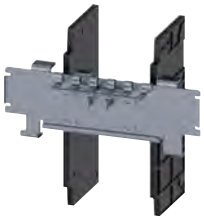
## Benefits

- Broad range of applications thanks to flexibility of interlocking technology
- Locking technology ensures safe locking of molded case circuit breakers, e.g. for maintenance purposes
- No restriction to use of internal accessories or to scope of accessories installed at the front of the molded case circuit breaker (when a rear interlock is deployed)
- Molded case circuit breakers of different sizes can be mutually interlocked.




Rear interlock with mounting frame

## Selection and ordering data

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Accessories for locking and interlocking** | | | | | | | | | | | |
|  3VA9388-0LB10 | **Locking devices for toggle levers** | ✓ | ✓ | -- | -- | | 3VA9088-0LB10 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | ✓ | | 3VA9388-0LB10 | | 1 | 1 unit | 1CB |
|  3VA9167-0LF10 | **Adapter kit for mounting the cylinder lock (type Ronis) in the accessories compartment of the molded case circuit breaker** Comprising 2 cylinder lock casings (one for locking and one for interlocking) and the appropriate mounting module | | | | | | | | | | |
| | Notes | ✓ | -- | -- | -- | | 3VA9157-0LF10 | | 1 | 1 unit | 1CB |
| | • To implement an interlock or a lock: select suitable cylinder lock(s) | -- | ✓ | -- | -- | | 3VA9257-0LF10 | | 1 | 1 unit | 1CB |
| | • For an interlock: select the same cylinder lock number | -- | -- | ✓ | -- | | 3VA9167-0LF10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9367-0LF10 | | 1 | 1 unit | 1CB |
|  3VA9980-0VL10 | **Cylinder lock (type Ronis)** • Includes a lock with 2 keys • For locking or interlocking • For installation in all rotary operators with shaft stub • For mounting in the adapter kit for the accessories compartment | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • Key 1 (lock number 1) | ✓ | ✓ | ✓ | ✓ | | 3VA9980-0VL10 | | 1 | 1 unit | 1CB |
| | • Key 2 (lock number 2) | ✓ | ✓ | ✓ | ✓ | | 3VA9980-0VL20 | | 1 | 1 unit | 1CB |
| | • Key 3 (lock number 3) | ✓ | ✓ | ✓ | ✓ | | 3VA9980-0VL30 | | 1 | 1 unit | 1CB |
| | • Key 4 (lock number 4) | ✓ | ✓ | ✓ | ✓ | | 3VA9980-0VL40 | | 1 | 1 unit | 1CB |
|  3VA9168-0VF30 | **Sliding bar** Complete kit for interlocking 2 circuit breakers | | | | | | | | | | |
| | Note | ✓ | -- | -- | -- | | 3VA9158-0VF30 | | 1 | 1 unit | 1CB |
| | The article number must be ordered 2 x to implement an interlock between 3 breakers of the same size. | -- | ✓ | -- | -- | | 3VA9258-0VF30 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9168-0VF30 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9368-0VF30 | | 1 | 1 unit | 1CB |
|  3VA9167-0VF10 | **Module for handle interlock using a Bowden cable** | | | | | | | | | | |
| | Notes | ✓ | -- | -- | -- | | 3VA9157-0VF10 | | 1 | 1 unit | 1CB |
| | • A separate handle interlock module is required for each 3VA. | -- | ✓ | -- | -- | | 3VA9257-0VF10 | | 1 | 1 unit | 1CB |
| | • A Bowden cable must be ordered separately. | -- | -- | ✓ | -- | | 3VA9167-0VF10 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9367-0VF10 | | 1 | 1 unit | 1CB |
|  3VA9088-0VM10 | **Rear interlock with rod** Complete kit | ✓ | ✓ | ✓ | ✓ | | 3VA9088-0VM10 | | 1 | 1 unit | 1CB |
| | Note | | | | | | | | | | |
| | Mounting frames are not included in scope of supply. | | | | | | | | | | |
|  3VA9088-0VM30 | **Rear interlock with rod** Complete kit for plug-in/draw-out unit | ✓ | ✓ | ✓ | ✓ | | 3VA9088-0VM30 | | 1 | 1 unit | 1CB |
| | Note | | | | | | | | | | |
| | Mounting frames are not included in scope of supply. | | | | | | | | | | |

| | Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
|  3VA9980-0VC10 | **Bowden cable** | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • Length 0.6 m | ✓ | ✓ | ✓ | ✓ | | 3VA9980-0VC10 | | 1 | 1 unit | 1CB |
| | • Length 1.0 m | ✓ | ✓ | ✓ | ✓ | | 3VA9980-0VC20 | | 1 | 1 unit | 1CB |
| | • Length 1.5 m | ✓ | ✓ | ✓ | ✓ | | 3VA9980-0VC30 | | 1 | 1 unit | 1CB |
|  3VA9488-0VF20 | **Rotary operator interlock**[1] • Contains 1 unit • For interlocking up to 3 operators (with 3 modules) • Interlocking via Bowden cable (not included in scope of delivery) | For molded case circuit breakers | | | | | | | | | |
| | | 3VA1, 160 A | | | | | 3VA9158-0VF20 | | | | On request |
| | | 3VA1, 250 A | | | | | 3VA9258-0VF20 | | | | On request |
| | | 3VA2, 250 A | | | | | 3VA9268-0VF20 | | | | On request |
| | | 3VA2, 630 A | | | | | 3VA9468-0VF20 | | | | On request |
|  | **Mounting frame for rear interlock with rod** The following are required for the complete mounting frame kit: | | | | | | | | | | |
| | Versions | | | | | | | | | | |
| | • DIN rails | ✓ | ✓ | ✓ | ✓ | | 3VA9088-0VK10 | | 1 | 1 unit | 1CB |
| | • Mounting plates | ✓ | -- | -- | -- | | 3VA9158-0VK20 | | 1 | 1 unit | 1CB |
| | | -- | ✓ | -- | -- | | 3VA9258-0VK20 | | 1 | 1 unit | 1CB |
| | | -- | -- | ✓ | -- | | 3VA9268-0VK20 | | 1 | 1 unit | 1CB |
| | | -- | -- | -- | ✓ | | 3VA9468-0VK20 | | 1 | 1 unit | 1CB |
| | Note | | | | | | | | | | |
| | 2 mounting plates are required. They are screwed onto the DIN rail that can be ordered above. Different breakers can be mutually interlocked. | | | | | | | | | | |

[1] Start of delivery scheduled for 1st quarter 2016

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## Selection and ordering data

### Escutcheon for door cutout

3VA9163-0SB10

| Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3VA1 100 A, 160 A | 3VA1 250 A | 3VA2 100 A 160 A, 250 A | 3VA2 400 A, 630 A | | | | | | |
| **Escutcheon for door cutout for molded case circuit breaker** | | | | | | | | | | |
| Versions | | | | | | | | | | |
| • 3-pole, door cutout without ETU | ✓ | -- | -- | -- | | 3VA9053-0SB10 | | 1 | 1 unit | 1CB |
| | -- | ✓ | -- | -- | | 3VA9253-0SB10 | | 1 | 1 unit | 1CB |
| | -- | -- | ✓ | -- | | 3VA9163-0SB10 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9383-0SB10 | | 1 | 1 unit | 1CB |
| • 3-pole, door cutout with ETU | ✓ | -- | -- | -- | | 3VA9053-0SB20 | | 1 | 1 unit | 1CB |
| | -- | ✓ | -- | -- | | 3VA9253-0SB20 | | 1 | 1 unit | 1CB |
| | -- | -- | ✓ | -- | | 3VA9163-0SB20 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9363-0SB20 | | 1 | 1 unit | 1CB |
| • 4-pole, door cutout without ETU | ✓ | -- | -- | -- | | 3VA9054-0SB10 | | 1 | 1 unit | 1CB |
| | -- | ✓ | -- | -- | | 3VA9254-0SB10 | | 1 | 1 unit | 1CB |
| | -- | -- | ✓ | -- | | 3VA9164-0SB10 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9384-0SB10 | | 1 | 1 unit | 1CB |
| • 4-pole, door cutout with ETU | ✓ | -- | -- | -- | | 3VA9054-0SB20 | | 1 | 1 unit | 1CB |
| | -- | ✓ | -- | -- | | 3VA9254-0SB20 | | 1 | 1 unit | 1CB |
| | -- | -- | ✓ | -- | | 3VA9164-0SB20 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9364-0SB20 | | 1 | 1 unit | 1CB |
| **Escutcheon for MO320 motor operators** | ✓ | -- | -- | -- | | 3VA9053-0SB20 | | 1 | 1 unit | 1CB |
| | -- | ✓ | ✓ | -- | | 3VA9257-0SB30 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9387-0SB30 | | 1 | 1 unit | 1CB |
| **Masking frame for RCD320, RCD520 and RCD820 residual current protection device** | | | | | | | | | | |
| Versions | | | | | | | | | | |
| • 3-pole | ✓ | -- | -- | -- | | 3VA9053-0SB10 | | 1 | 1 unit | 1CB |
| | -- | ✓ | ✓ | -- | | 3VA9253-0SB10 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9303-0SB40 | | 1 | 1 unit | 1CB |
| • 4-pole | ✓ | -- | -- | -- | | 3VA9054-0SB10 | | 1 | 1 unit | 1CB |
| | -- | ✓ | ✓ | -- | | 3VA9254-0SB10 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9304-0SB40 | | 1 | 1 unit | 1CB |
| **Escutcheon for front mounted rotary operator** | ✓ | -- | -- | -- | | 3VA9053-0SB10 | | 1 | 1 unit | 1CB |
| | -- | ✓ | -- | -- | | 3VA9253-0SB10 | | 1 | 1 unit | 1CB |
| | -- | -- | ✓ | -- | | 3VA9163-0SB10 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9383-0SB10 | | 1 | 1 unit | 1CB |
| **Escutcheon for door feedthrough** | -- | ✓ | ✓ | -- | | 3VA9253-0SB20 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9353-0SB20 | | 1 | 1 unit | 1CB |
| **Labeling plate for escutcheon** | | | | | | 3VA9087-0SX10 | | 1 | 10 units | 1CB |

3VA9087-0SX10

4



* You can order this quantity or a multiple thereof.

| Version | For molded case circuit breakers/frame size | | | | DT | Article No. www.siemens.com/product?Article No. | Price per PU | PU (UNIT, SET, M) | PS*/ P. unit | PG |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3VA1 100 A 160 A | 3VA1 250 A | 3VA2 100 A 160 A 250 A | 3VA2 400 A 630 A | | | | | | |
| **Adapter for DIN rails for 3VA1 molded case circuit breakers** | | | | | | | | | | |
|  3VA9187-0SH10 | | | | | | | | | | |
| **Adapter for DIN rails for 3VA1 molded case circuit breakers** | | | | | | | | | | |
| Versions | | | | | | | | | | |
| • 1-pole[1)] | ✓ | -- | -- | -- | | 3VA9181-0SH10 | | 1 | 1 unit | 1CB |
| • 2-pole | ✓ | -- | -- | -- | | 3VA9182-0SH10 | | 1 | 1 unit | 1CB |
| • 3- and 4-pole | ✓ | -- | -- | -- | | 3VA9187-0SH10 | | 1 | 1 unit | 1CB |
| • 3 and 4-pole in conjunction with RCD310 or RCD510 | ✓ | -- | -- | -- | | 3VA9187-0SH20 | | 1 | 1 unit | 1CB |
| **Adapter for 60 mm busbar system (8US)** | | | | | | | | | | |
|  | | | | | | | | | | |
| Busbar adapter systems with 40 mm or 60 mm busbar center-to-center spacing with components for busbar runs, adapters and switching device holders for individual equipment possibilities, devices with an integrated adapter, as well as accessories and flat copper profiles. Observe the short-circuit strength of the busbar system. Short-circuit strength greater than 50 kA on request. For more information, see chapter "Busbar Systems". | | | | | | | | | | |
| **Mounting screw kit** | | | | | | | | | | |
|  3VA9111-0SS10 | | | | | | | | | | |
| **Mounting screw kit** | | | | | | | | | | |
| Versions | | | | | | | | | | |
| • For fixed-mounted molded case circuit breakers | | | | | | | | | | |
| - 1-pole | ✓ | -- | -- | -- | | 3VA9111-0SS10 | | 1 | 1 unit | 1CB |
| - 2 and 3-pole (apart from 125 A/160 A with 55 kA and 70 kA) | ✓ | ✓ | -- | -- | | 3VA9116-0SS10 | | 1 | 1 unit | 1CB |
| - 3-pole (125 A/160 A with 55 kA and 70 kA) and 4-pole | ✓ | ✓ | -- | -- | | 3VA9114-0SS10 | | 1 | 1 unit | 1CB |
| - 3-pole | -- | -- | ✓ | -- | | 3VA9126-0SS10 | | 1 | 1 unit | 1CB |
| - 4-pole | -- | -- | ✓ | -- | | 3VA9124-0SS10 | | 1 | 1 unit | 1CB |
| - 3- and 4-pole | -- | -- | -- | ✓ | | 3VA9328-0SS10 | | 1 | 1 unit | 1CB |
| • For plug-in technology | ✓ | ✓ | -- | -- | | 3VA9114-0SS10 | | 1 | 1 unit | 1CB |
| • For plug-in and draw-out units | -- | ✓ | -- | -- | | 3VA9114-0SS10 | | 1 | 1 unit | 1CB |
| | -- | -- | ✓ | -- | | 3VA9124-0SS10 | | 1 | 1 unit | 1CB |
| | -- | -- | -- | ✓ | | 3VA9328-0SS10 | | 1 | 1 unit | 1CB |

[1)] For 3VA1 molded case circuit breakers, 160 A 1-pole up to 25 kA

4

## Notes

## Catalog notes

### Overview

#### *Trademarks*

All product designations may be registered trademarks or product names of
Siemens or supplier companies whose use by third parties for their own purposes may violate the rights of the owner.

#### *Amendments*

Unless stated otherwise on the individual pages of this catalog, we reserve the right to make changes, in particular to the specified values, measurements and weights.

#### *Dimensions*

All dimensions are in mm.

#### *Illustrations*

The illustrations are not binding.

#### *Technical data*

The technical specifications are for general information purposes only. Always heed the operating instructions and notices on individual products during assembly, operation and maintenance.

Further technical information is available at
www.siemens.com/lowvoltage/product-support

- under "Entry type":
  - Application example
  - Certificate
  - Characteristic
  - Download
  - FAQ
  - Manual
  - Product note
  - Software archive
  - Technical data

#### *Assembly, operation and maintenance*

Always heed the operating instructions and notices on individual products during assembly, operation and maintenance.

#### *Symbols*

In the table below, you will find all symbols concerning connections that can occur in this catalog. In combination with orange highlighting, these identify special selection criteria.

| Connections | |
|---|---|
|  | Screw connection |
|  | Ring cable lug connection |
|  | Spring-loaded terminals |

EM LP Catalog Notes En 18.03.2015

## Logistics

### *General*

With regard to delivery service, communications and environmental protection, our logistics service ensures "quality from the moment of ordering right through to delivery". By designing our infrastructure according to customer requirements and implementing electronic order processing, we have successfully optimized our logistics processes.

We regard the DIN ISO 9001 certification and consistent quality checks as an integral part of our services.

Electronic order processing is fast, cost-efficient and error-free. Please contact us if you want to benefit from these advantages.

### *Packaging, packing units*

The packaging in which our equipment is dispatched provides protection against dust and mechanical damage during transport, thus ensuring that all our products arrive in perfect condition.

We select our packaging for maximum environmental compatibility and reusability (e.g. crumpled paper for protection during transport in packages up to 32 kg) and, in particular, with a view to reducing waste.

With our multi-unit and reusable packaging, we offer you specific types of packaging that are both kind to the environment and tailored to your requirements:

Your advantages at a glance:

- Lower ordering costs.
- Cost savings through same-material type packaging: Low/no disposal costs.
- Reduced time and cost thanks to short unpacking times.
- "Just-in-time" delivery directly to the production line helps reduce stock: Cost savings through reduction of storage areas.
- Fast assembly thanks to supply in sets.
- Standard Euro boxes - corresponding to the Euro pallet modular system - suitable for most conveyor systems.
- Active contribution to environmental protection.

Unless stated otherwise in the "Selection and ordering data" of this catalog, our products are supplied individually packed.

For small parts/accessories, we offer you cost-effective packaging units as standard packs containing more than one item, e.g. 5, 10, 50 or 100 units. It is essential that whole number multiples of these quantities be ordered to ensure satisfactory quality of the products and problem-free order processing.

The products are delivered in a neutral carton. The label includes warning notices, the CE marking, and device descriptions in English and German.

## Ordering notes

### Industry Online Support App

***Main functions at a glance***

- Scanning of product codes (EAN/QR and data matrix codes) with direct display of all technical information on the product, including graphic data (CAx data).
- Delivery of product information or entries by e-mail, so that the information can immediately be processed at the workplace.
- Submission of queries to Technical Support (Support Requests). With photo function for transmitting detailed information.
- Contents and interfaces available in six languages (German, English, French, Italian, Spanish and Chinese) – including option of temporary switchover to English.
- Offline cache function for all favorites stored in "mySupport". These entries can also be retrieved without network reception.
- Import of PDF documents into a library (e.g. iBooks or similar).
- An overview of the main functions can be found at

  www.siemens.com/lowvoltage/support-app

***Android:***

ANDROID APP ON Google play

Industry Online Support App ANDROID

***Apple iOS:***

Available on the App Store

Industry Online Support App iOS

***Windows:***

Download from Windows Phone Store

Industry Online Support App WINDOWS 8

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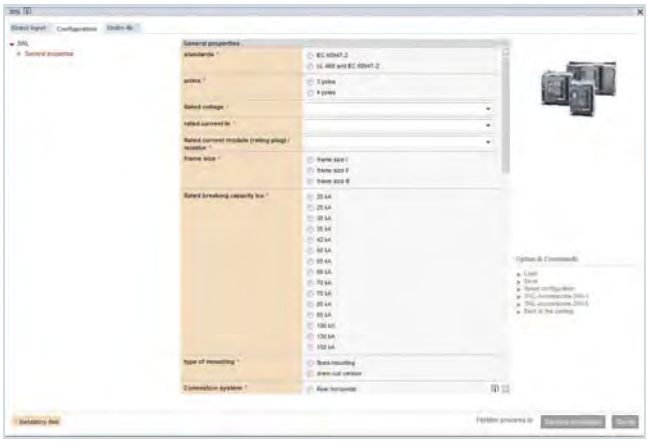
## Product configurator



***Find the right product faster using intuitive product selection***

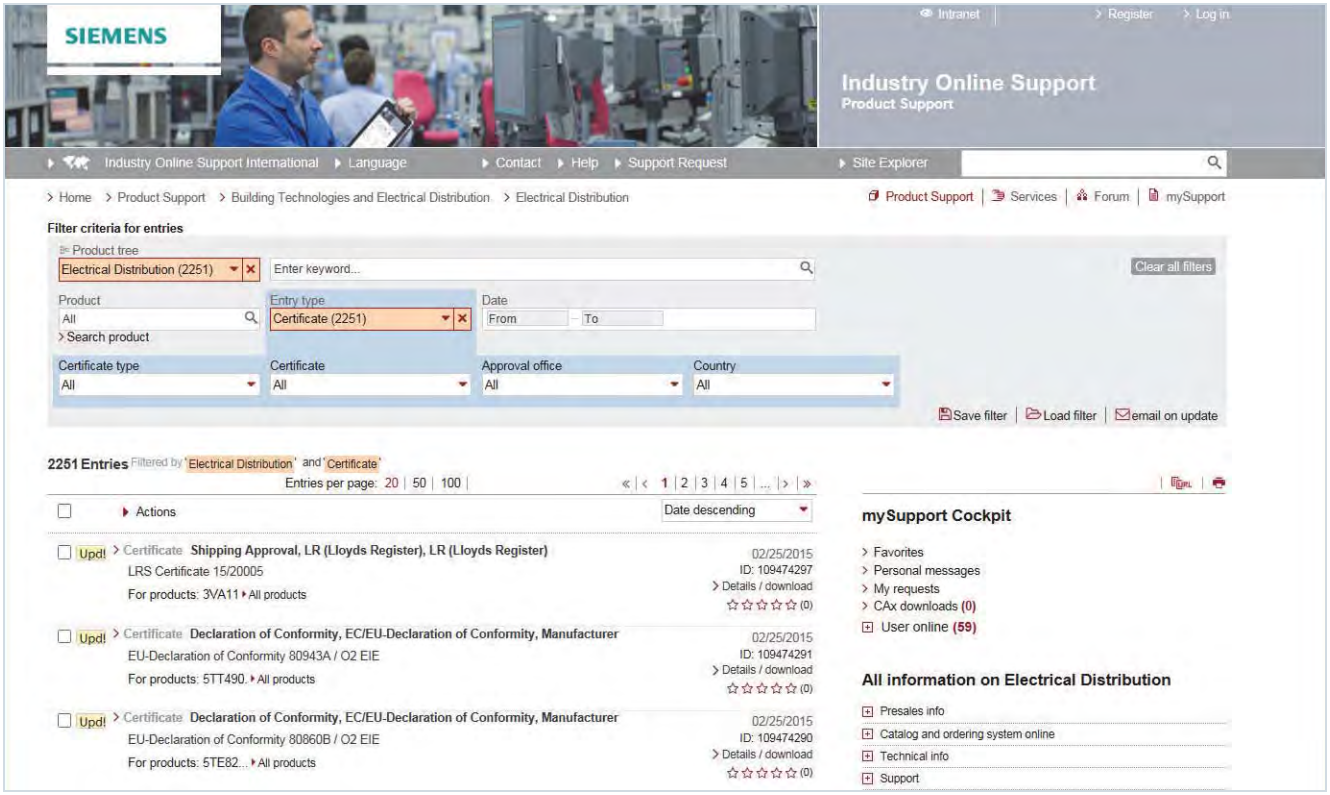
- Complete selection of products and systems based on technical characteristics or application requirements
- Simple, intuitive operation
- Option to save the configuration and order lists in a file format of your choice (txt, pdf, xls, csv)
- Direct transfer of the order list into the shopping cart of the Siemens Industry Mall
- Fast access to product data, diagrams, certificates and CAx data for the selected product and system configuration
- Available in multiple languages for use by customers anywhere in the world

## Overview

### *Certificates*

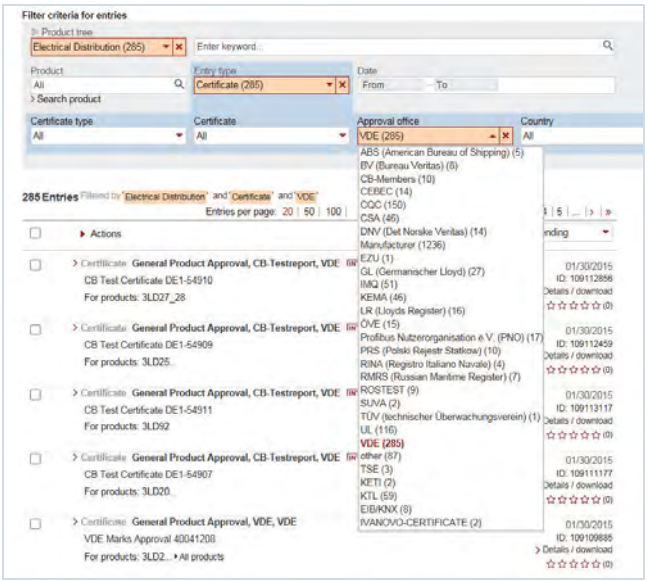
An overview, updated on a daily basis, of our products certified in accordance with CE, UL, CSA, FM, shipping authorizations etc. for low-voltage power distribution and electrical installation products can be found on the Internet at

www.siemens.com/lowvoltage/certificates




In the **Entry list** you can **filter the view** in order to quickly find comprehensive information on the following subjects:

- Product or search term
- Date
- Type of certificate (general product approval, test certificates, shipping approval, ...)
- Certificate (confirmations, UL, VDE,...)
- Approval office (TÜV, VDE, UL, ...)
- Country



## Approval requirements valid in different countries

Siemens low-voltage switchgear and controlgear are designed, manufactured and tested according to the relevant German standards (DIN and VDE), IEC publications and European standards (EN).

As far as is economically viable, in addition to the pertinent VDE, EN and IEC standards, the requirements of the various regulations valid in other countries are also taken into account in the design of the devices to enable global use as far as possible in the normal version.

EM LP Quality En 05.03.15

The currently available approvals, test certificates and certificates can be viewed in Siemens Industry Online Support via the following link

www.siemens.com/lowvoltage/certificates

## Appendix

Article No. and Page No.

| Article No. | Page | Weight | Export markings | |
|---|---|---|---|---|
| | | kg | ECCN | AL |
| 3VA1196-6EF46-0AA0 | 2/21 | 1.200 | EAR99 | N |
| 3VA1196-6GD42-0AA0 | 2/17 | 1.200 | EAR99 | N |
| 3VA1196-6GD46-0AA0 | 2/17 | 1.200 | EAR99 | N |
| 3VA1196-6GE42-0AA0 | 2/19 | 1.200 | EAR99 | N |
| 3VA1196-6GE46-0AA0 | 2/19 | 1.200 | EAR99 | N |
| 3VA1196-6GF42-0AA0 | 2/23 | 1.200 | EAR99 | N |
| 3VA1196-6GF46-0AA0 | 2/23 | 1.200 | EAR99 | N |
| 3VA1216-4EF32-0AA0 | 2/11 | 1.800 | EAR99 | N |
| 3VA1216-4EF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1216-4FF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1216-4GF42-0AA0 | 2/23 | 2.300 | EAR99 | N |
| 3VA1216-5EF32-0AA0 | 2/11 | 1.800 | EAR99 | N |
| 3VA1216-5EF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1216-5FF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1216-5GF42-0AA0 | 2/23 | 2.300 | EAR99 | N |
| 3VA1216-5MH32-0AA0 | 2/24 | 1.800 | EAR99 | N |
| 3VA1216-6EF32-0AA0 | 2/11 | 1.800 | EAR99 | N |
| 3VA1216-6EF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1216-6FF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1216-6GF42-0AA0 | 2/23 | 2.300 | EAR99 | N |
| 3VA1216-6MH32-0AA0 | 2/25 | 1.800 | EAR99 | N |
| 3VA1220-4EF32-0AA0 | 2/11 | 1.606 | EAR99 | N |
| 3VA1220-4EF42-0AA0 | 2/21 | 2.090 | EAR99 | N |
| 3VA1220-4FF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1220-4GF42-0AA0 | 2/23 | 2.300 | EAR99 | N |
| 3VA1220-5EF32-0AA0 | 2/11 | 1.607 | EAR99 | N |
| 3VA1220-5EF42-0AA0 | 2/21 | 2.087 | EAR99 | N |
| 3VA1220-5FF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1220-5GF42-0AA0 | 2/23 | 2.300 | EAR99 | N |
| 3VA1220-5MH32-0AA0 | 2/24 | 1.800 | EAR99 | N |
| 3VA1220-6EF32-0AA0 | 2/11 | 1.610 | EAR99 | N |
| 3VA1220-6EF42-0AA0 | 2/21 | 2.084 | EAR99 | N |
| 3VA1220-6FF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1220-6GF42-0AA0 | 2/23 | 2.300 | EAR99 | N |
| 3VA1220-6MH32-0AA0 | 2/25 | 1.800 | EAR99 | N |
| 3VA1225-1AA32-0AA0 | 2/26 | 1.800 | EAR99 | N |
| 3VA1225-1AA42-0AA0 | 2/26 | 2.100 | EAR99 | N |
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| 3VA1225-4EF42-0AA0 | 2/21 | 2.083 | EAR99 | N |
| 3VA1225-4FF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1225-4GF42-0AA0 | 2/23 | 2.300 | EAR99 | N |
| 3VA1225-5EF32-0AA0 | 2/11 | 1.609 | EAR99 | N |
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| 3VA1225-6FF42-0AA0 | 2/21 | 2.300 | EAR99 | N |
| 3VA1225-6GF42-0AA0 | 2/23 | 2.300 | EAR99 | N |

| Article No. | Page | Weight | Export markings | |
|---|---|---|---|---|
| | | kg | ECCN | AL |
| **3VA2** | | | | |
| 3VA2010-5HL32-0AA0 | 3/2 | 2.100 | EAR99 | N |
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| 3VA2010-5HL42-0AA0 | 3/14 | 2.930 | EAR99 | N |
| 3VA2010-5HL46-0AA0 | 3/14 | 3.130 | EAR99 | N |
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| 3VA2010-5HM36-0AA0 | 3/4 | 2.430 | EAR99 | N |
| 3VA2010-5HM42-0AA0 | 3/16 | 2.930 | EAR99 | N |
| 3VA2010-5HM46-0AA0 | 3/16 | 3.130 | EAR99 | N |
| 3VA2010-5HN32-0AA0 | 3/8 | 2.100 | EAR99 | N |
| 3VA2010-5HN36-0AA0 | 3/8 | 2.235 | EAR99 | N |
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| 3VA2010-5HN46-0AA0 | 3/20 | 3.130 | EAR99 | N |
| 3VA2010-5JP32-0AA0 | 3/10 | 2.290 | EAR99 | N |
| 3VA2010-5JP36-0AA0 | 3/10 | 2.440 | EAR99 | N |
| 3VA2010-5JP42-0AA0 | 3/22 | 2.940 | EAR99 | N |
| 3VA2010-5JP46-0AA0 | 3/22 | 3.140 | EAR99 | N |
| 3VA2010-5JQ32-0AA0 | 3/10 | 2.290 | EAR99 | N |
| 3VA2010-5JQ36-0AA0 | 3/10 | 2.440 | EAR99 | N |
| 3VA2010-5JQ42-0AA0 | 3/22 | 2.940 | EAR99 | N |
| 3VA2010-5JQ46-0AA0 | 3/22 | 3.140 | EAR99 | N |
| 3VA2010-5KP32-0AA0 | 3/12 | 2.300 | EAR99 | N |
| 3VA2010-5KP36-0AA0 | 3/12 | 2.299 | EAR99 | N |
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| 3VA2010-5KP46-0AA0 | 3/24 | 3.150 | EAR99 | N |
| 3VA2010-5KQ32-0AA0 | 3/12 | 2.300 | EAR99 | N |
| 3VA2010-5KQ36-0AA0 | 3/12 | 2.450 | EAR99 | N |
| 3VA2010-5KQ42-0AA0 | 3/24 | 2.950 | EAR99 | N |
| 3VA2010-5KQ46-0AA0 | 3/24 | 3.150 | EAR99 | N |
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| 3VA2010-6HL42-0AA0 | 3/15 | 2.702 | EAR99 | N |
| 3VA2010-6HL46-0AA0 | 3/15 | 3.130 | EAR99 | N |
| 3VA2010-6HM32-0AA0 | 3/5 | 2.105 | EAR99 | N |
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| 3VA2010-6KP36-0AA0 | 3/13 | 2.450 | EAR99 | N |

## Ordering notes

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***Android:***

ANDROID APP ON Google play

Industry Online Support App ANDROID

***Apple iOS:***

Available on the App Store

Industry Online Support App iOS

***Windows:***

Download from Windows Phone Store

Industry Online Support App WINDOWS 8

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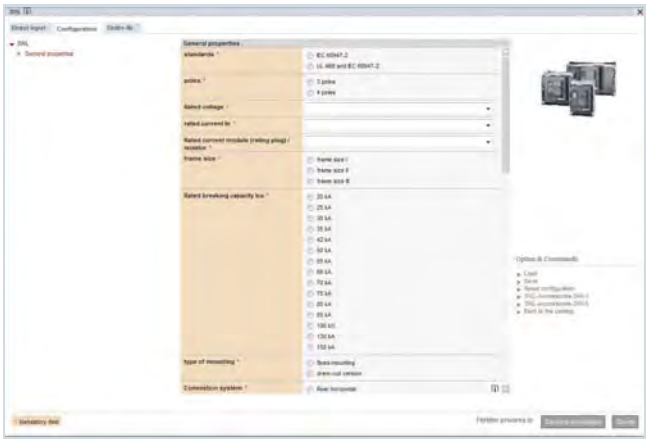
## Product configurator



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- Fast access to product data, diagrams, certificates and CAx data for the selected product and system configuration
- Available in multiple languages for use by customers anywhere in the world

## Article No. and Page No.

## Article No. and Page No.

## Article No. and Page No.

## Article No. and Page No.

| Article No. | Page |
|---|---|
| 3VA2025-7HL36-0AA0 | 3/3 |
| 3VA2025-7HL42-0AA0 | 3/15 |
| 3VA2025-7HL46-0AA0 | 3/15 |
| 3VA2025-7HM32-0AA0 | 3/5 |
| 3VA2025-7HM36-0AA0 | 3/5 |
| 3VA2025-7HM42-0AA0 | 3/17 |
| 3VA2025-7HM46-0AA0 | 3/17 |
| 3VA2025-7HN32-0AA0 | 3/9 |
| 3VA2025-7HN36-0AA0 | 3/9 |
| 3VA2025-7HN42-0AA0 | 3/21 |
| 3VA2025-7HN46-0AA0 | 3/21 |
| 3VA2025-7JP32-0AA0 | 3/11 |
| 3VA2025-7JP36-0AA0 | 3/11 |
| 3VA2025-7JP42-0AA0 | 3/23 |
| 3VA2025-7JP46-0AA0 | 3/23 |
| 3VA2025-7JQ32-0AA0 | 3/11 |
| 3VA2025-7JQ36-0AA0 | 3/11 |
| 3VA2025-7JQ42-0AA0 | 3/23 |
| 3VA2025-7JQ46-0AA0 | 3/23 |
| 3VA2025-7KP32-0AA0 | 3/13 |
| 3VA2025-7KP36-0AA0 | 3/13 |
| 3VA2025-7KP42-0AA0 | 3/25 |
| 3VA2025-7KP46-0AA0 | 3/25 |
| 3VA2025-7KQ32-0AA0 | 3/13 |
| 3VA2025-7KQ36-0AA0 | 3/13 |
| 3VA2025-7KQ42-0AA0 | 3/25 |
| 3VA2025-7KQ46-0AA0 | 3/25 |
| 3VA2025-8HL32-0AA0 | 3/3 |
| 3VA2025-8HL36-0AA0 | 3/3 |
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