



circuit breaker 3VA5 UL Frame 250 breaking capacity class C 100 kA @ 480 V 4-pole, line protection TM210, FTFM, In=90 A overload protection Ir=90 A permanently set short-circuit protection li=10 x In neutral conductor protection 100% without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	CFAS
design of the product	System protection
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HID Type)	No
design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)	No
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	1 000 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	25 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	8.2 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
electrical endurance (operating cycles) / at 480 V	8 000
electrical endurance (operating cycles) / at 600 V	4 000
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
product function	
• communication function	No
• other measurement function	No
Net Weight	2.7 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	90 A
• at 45 °C	90 A
• at 50 °C	90 A
• at 55 °C	87.3 A
• at 60 °C	85.5 A
• at 65 °C	82.8 A
• at 70 °C	79.2 A

Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	C
maximum short-circuit current breaking capacity (I _{cu}) <ul style="list-style-type: none">• at 240 V• at 415 V• at 690 V	200 kA 85 kA 10 kA
operating short-circuit current breaking capacity (I _{cs}) <ul style="list-style-type: none">• at 240 V• at 415 V• at 690 V	200 kA 85 kA 10 kA
short-circuit current making capacity (I _{cm}) <ul style="list-style-type: none">• at 240 V• at 415 V• at 690 V	440 kA 187 kA 17 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter

Switching capacity according to UL 489

current breaking capacity <ul style="list-style-type: none">• at 240 V• at 480 V• at 600 V	200 kA 100 kA 35 kA
--	---------------------------

Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic <ul style="list-style-type: none">• minimum• maximum	90 A 90 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic <ul style="list-style-type: none">• minimum• maximum	1 s 1 s
adjustable response value setting current (I _i) / for I-tripping <ul style="list-style-type: none">• minimum• maximum	900 A 900 A
adjustable setting current (I _{nN}) / for N-tripping <ul style="list-style-type: none">• minimum• maximum	90 A 90 A
design of the N-conductor protection	100%
product function / grounding protection	No

Mechanical Design

product component <ul style="list-style-type: none">• undervoltage release• voltage trigger• trip indicator	No No No
height [in]	7.28 in
height	185 mm
width [in]	5.51 in
width	140 mm
depth [in]	3.27 in
depth	83 mm

Connections

arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without

Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
--	---

Accessories

product extension / optional / motor drive	Yes
--	-----

Environmental conditions

protection class IP / on the front	IP40
ambient temperature <ul style="list-style-type: none">• during operation / minimum	-25 °C

- during operation / maximum
- during storage / minimum
- during storage / maximum

70 °C
-40 °C
80 °C

reference code / according to IEC 81346-2

Q

Approvals / Certificates

General Product Approval



EG-Konf.



CCC

[Confirmation](#)



UL



UL

General Product Approval

EMV

Marine / Shipping

other

[Miscellaneous](#)



RCM



ABS

[Confirmation](#)

[Miscellaneous](#)

other

Environment

[Miscellaneous](#)

[Environmental Con-
firmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5290-7GD41-0AA0>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5290-7GD41-0AA0>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

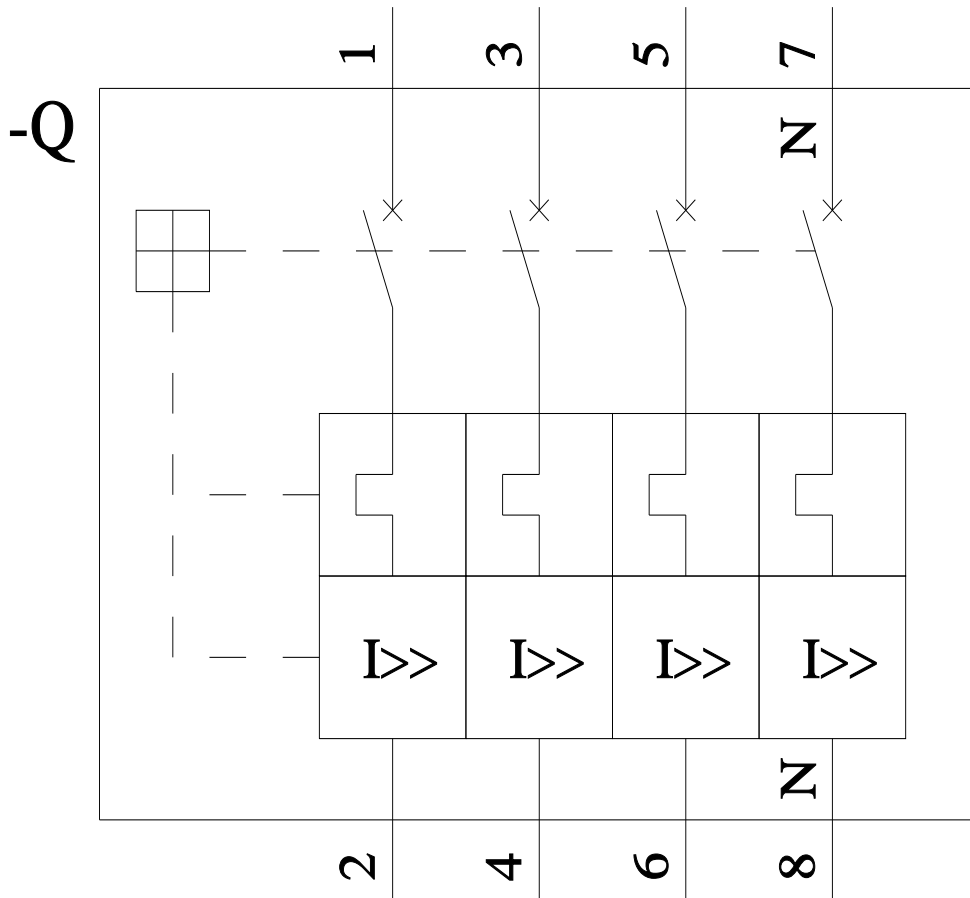
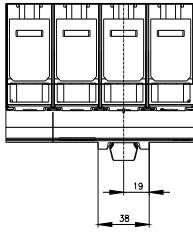
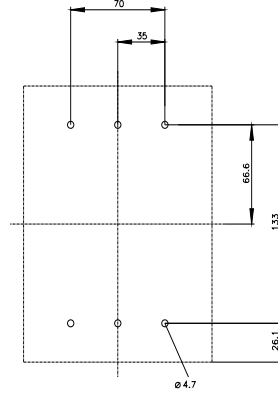
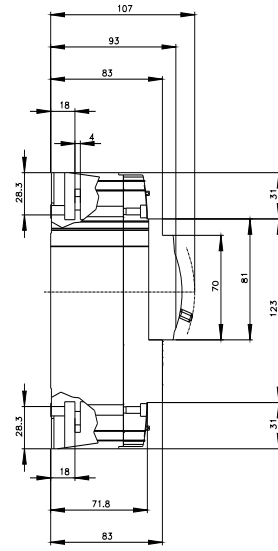
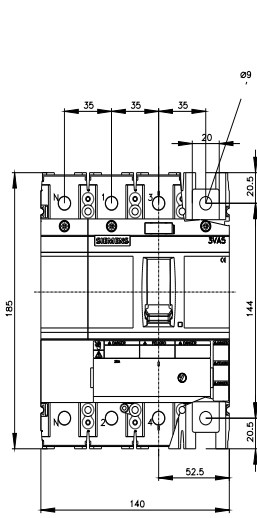
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5290-7GD41-0AA0

CAx-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>





last modified:

6/16/2022 