



CIRCUIT-BREAKER VL 800L VERY HIGH BREAKING CAPACITY
 ICU=100KA / 415 V AC 4 POLE, LINE PROTECTION ELECTRONIC
 TRIP UNIT ETU20, LSI IN=800A, RATED CURRENT IR=320-800A,
 OVERLOAD ISD=1,5TO7XIR, II=8XIN SHORT-CIRCUIT N
 PROTECTED WITHOUT AUXILIARY RELEASE ETU
 COMMUNICATION-CAPABLE

Model	
Type of the driving mechanism / motor drive	No
Design of the overcurrent release	ETU20
General technical data	
Number of poles	4
Size of the circuit-breaker	3VL6
Electrical endurance (switching cycles) / typical	3 000
Usage category	A
Performance class for circuit breaker	N
Mechanical service life (switching cycles) / typical	10 000
Equipment marking / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750	Q
Operating frequency / maximum	60 1/s
Voltage	
Rated operational voltage U _e / max.	690 V
Insulation voltage	
• rated value	800 V
• at AC / rated value	800 V

Surge voltage resistance / rated value	8 kV
Protection class	
Protection class IP	IP20
Protective function of the overcurrent release	LSIN
Dissipation	
Power loss [W]	
• maximum	250 W
Electricity	
Operating current / at 45 °C / rated value	800 A
Continuous current / rated value	800 A
Derating temperature / for the rated value of the continuous current	50 °C
Adjustable pick-up value current	
• of the current-dependent overload release / Full-scale value	800 A
• of instantaneous short-circuit trip unit / initial value	6 400 A
• of instantaneous short-circuit trip unit / Full-scale value	6 400 A
Main circuit	
Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
Operating voltage	
• rated value / maximum	690 V
• for main current circuit / at AC / at 50 Hz / maximum	690 V
• for main current circuit / at AC / at 60 Hz / maximum	690 V
Operating current	
• at 40 °C / rated value	800 A
• at 50 °C / rated value	800 A
• at 55 °C / rated value	760 A
• at 60 °C / rated value	760 A
• at 65 °C / rated value	640 A
• at 70 °C / rated value	640 A
Suitability	
Suitability for use	system/generator protection
Adjustable parameters	
Adjustable pick-up value current / of the short-time delayed short-circuit release / Full-scale value	5 600 A

Adjustable pick-up value current / of the current-dependent overload release / initial value	320 A
--	-------

Product details

Product component	
• Trip indicator	No
• Auxiliary switch	No
• Voltage trigger	No
• undervoltage release	No
• undervoltage release with leading contact	No
Product extension / optional / motor drive	Yes

Product function

Product function	
• of thermal overload trip unit	adjustable
• Ground fault protection	No
• for neutral conductors / Short-circuit and overload proof	Yes
• Overload protection	Yes

Short circuit

Operational short-circuit current breaking capacity (Ics)	
• at 240 V / rated value	150 kA
• at 415 V / rated value	75 kA
• at 500 V / rated value	38 kA
• at 690 V / rated value	10 kA
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V / rated value	200 kA
• at 415 V / rated value	100 kA
• at 440 V / rated value	75 kA
• at 480 V / acc. to NEMA / rated value	65 kA
• at 500 V / rated value	50 kA
• at 600 V / acc. to NEMA / rated value	35 kA
• at 690 V / rated value	20 kA

Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of electrical connection / for main current circuit	screw-type terminals

Mechanical Design

Height	406.5 mm
Width	253.5 mm
Depth	176.5 mm
Mounting type	fixed mounting

Environmental conditions

Ambient temperature

- | | |
|------------------------------|--------|
| • during operation / minimum | -25 °C |
| • during operation / maximum | 70 °C |
| • during storage / minimum | -40 °C |
| • during storage / maximum | 80 °C |

Certificates

Certificate of suitability IEC, very high switching capacity (L)

Equipment marking

- acc. to DIN EN 61346-2 Q

General Product Approval

EMC

Declaration of Conformity



CCC



CSA

[Miscellaneous](#)

[TSE](#)



C-Tick



EG-Konf.

Test Certificates

Shipping Approval

other

[Special Test Certificate](#)



RINA



RMRS

[Miscellaneous](#)

[Confirmation](#)

[Environmental Confirmations](#)

Further information

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=3VL6780-3NF46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL6780-3NF46-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL6780-3NF46-0AA0

CAX-Online-Generator

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

Tender specifications

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