

CIRCUIT-BREAKER VL 1600L VERY HIGH BREAKING CAPACITY
ICU=100KA / 415 V AC 3 POLE, LINE PROTECTION ELECTRONIC
TRIP UNIT ETU20, LSI IN=1600A, RATED CURRENT IR=640-
1600A, OVERLOAD ISD=1,5TO8XIR, II=9XIN SHORT-CIRCUIT

Model	
Design of the operating mechanism	toggle handle
Type of the driving mechanism / motor drive	Yes
Design of the overcurrent release	ETU20
General technical data	
Number of poles	3
Size of the circuit-breaker	3VL8
Electrical endurance (switching cycles) / typical	1 500
Usage category	A
Performance class for circuit breaker	N
Mechanical service life (switching cycles) / typical	3 000
Equipment marking / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750	Q
Operating frequency / maximum	30 1/s
Voltage	
Rated operational voltage Ue / 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	LSI
Dissipation	
Power loss [W]	
• maximum	260 W
Electricity	
Continuous current / rated value	1 600 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	1 600 A

• of instantaneous short-circuit trip unit / initial value	14 400 A
• of instantaneous short-circuit trip unit / Full-scale value	14 400 A

Main circuit

Operating frequency

• 1 / rated value	50 Hz
• 2 / rated value	60 Hz

Operating voltage

• 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	1 600 A
• at 50 °C / rated value	1 600 A
• at 55 °C / rated value	1 520 A
• at 60 °C / rated value	1 520 A
• at 65 °C / rated value	1 280 A
• at 70 °C / rated value	1 280 A

Suitability

Suitability for use	system/generator protection
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Adjustable parameters

Adjustable pick-up value current / of the current-dependent overload release / initial value	640 A
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Product details

Product component

• Trip indicator	No
• Auxiliary switch	Yes
• Voltage trigger	No
• undervoltage release	Yes
• undervoltage release with leading contact	No

Product extension / optional / motor drive	No
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Product function

Product function

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

Short circuit

Operational short-circuit current breaking capacity (Ics)

• at 240 V / rated value	100 kA
• at 415 V / rated value	50 kA
• at 500 V / rated value	38 kA
• at 690 V / rated value	17 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	30 kA
• at 690 V / rated value	35 kA

Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of electrical connection / for main current circuit	without connection accessoires

Mechanical Design

Height	406.5 mm
Width	228.5 mm
Depth	333.5 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	Q
• acc. to DIN EN 61346-2	

General Product Approval				EMC	Declaration of Conformity
 CCC	 CSA	sonstig	TSE	 C-Tick	 EG-Konf.

Test Certificates	Shipping Approval		other		
spezielle Prüfbescheinigung n	 RINA	 RMRS	sonstig	Bestätigungen	Umweltbestätigung

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=3VL8716-3SE30-2JC1-Z M22>

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

<http://support.automation.siemens.com/WW/view/en/3VL8716-3SE30-2JC1-Z M22/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL8716-3SE30-2JC1-Z M22

CAX-Online-Generator

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

Tender specifications

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