

CIRCUIT-BREAKER VL 160H HIGH BREAKING CAPACITY
 ICU=70KA / 415 V AC 3 POLE, LINE PROTECTION
 OVERCURRENT RELEASE TM, LI IN=50A, RATED CURRENT
 IR=40-50A, OVERLOAD II=300-600A, SHORT CIRCUIT



Model	
Type of the driving mechanism / motor drive	No
Design of the overcurrent release	TM
General technical data	
Number of poles	3
Size of the circuit-breaker	3VL2
Electrical endurance (switching cycles) / typical	10 000
Usage category	A
Performance class for circuit breaker	N
Mechanical service life (switching cycles) / typical	20 000
Equipment marking / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750	Q
Operating frequency / maximum	120 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	LI
Dissipation	
Power loss [W]	
• maximum	16 W
Electricity	
Continuous current / rated value	50 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	50 A
• of instantaneous short-circuit trip unit / initial value	300 A
• of instantaneous short-circuit trip unit / Full-scale value	600 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
• for main current circuit / at DC / maximum	500 V
Operating current	
• at 40 °C / rated value	50 A
• at 50 °C / rated value	50 A
• at 55 °C / rated value	46.5 A
• at 60 °C / rated value	46.5 A
• at 65 °C / rated value	43 A
• at 70 °C / rated value	43 A
Suitability	
Suitability for use	system protection
Adjustable parameters	
Adjustable pick-up value current / of the current-dependent overload release / initial value	40 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
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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	75 kA
• at 415 V / rated value	70 kA
• at 500 V / rated value	30 kA
• at 690 V / rated value	6 kA

Maximum short-circuit current breaking capacity (Icu)

• at 240 V / rated value	100 kA
• at 415 V / rated value	70 kA
• at 440 V / rated value	50 kA
• at 480 V / acc. to NEMA / rated value	50 kA
• at 500 V / rated value	40 kA
• at 600 V / acc. to NEMA / rated value	12 kA
• at 690 V / rated value	12 kA

Connections

Arrangement of electrical connectors / for main current circuit	front side
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Type of electrical connection / for main current circuit	box terminals
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Mechanical Design

Height	174.5 mm
Width	104.5 mm
Depth	106.5 mm
Mounting type	fixed mounting

Environmental conditions

Ambient temperature	
• during operation / minimum	0 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C

Certificates	
Certificate of suitability	IEC, high switching capacity (H)
Equipment marking	Q

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

Test Certificates	Shipping Approval				
spezielle Prüfbescheinigung n	 ABS	 BUREAU VERITAS	 LRS	 PRS	 RINA

Shipping Approval	other			
 RMRS	Bestätigungen	Umweltbestätigung	sonstig	

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=3VL2705-2DC33-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VL2705-2DC33-0AA0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL2705-2DC33-0AA0

CAX-Online-Generator

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

Tender specifications

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