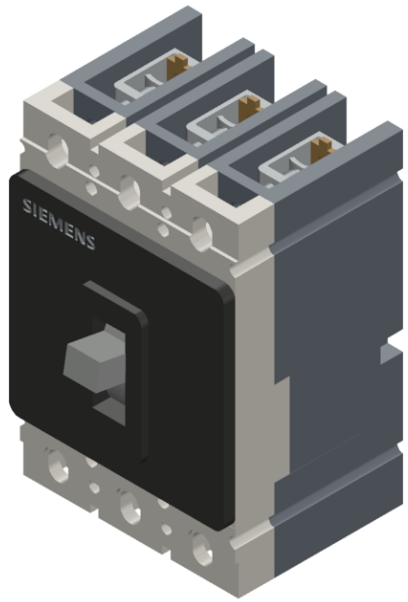
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Data sheet 3VL1708-1DD33-0AA0

circuit breaker VL160X N standard breaking capacity Icu=55kA, 415V AC 3-pole, line protection Electronic Trip Unit TM, LI In=80A, rated current Ir=63...80A, overload prot. Ii=1000A, short-circuit prot. without auxiliary release without auxiliary/alarm switch



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	3VL1
Electrical endurance (switching cycles) / typical	10 000

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Usage category	A
Performance class for circuit breaker	N
Mechanical service life (switching cycles) / typical	20 000
Reference code / 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 Ue / max.	690 V
Insulation voltage / rated value	800 V
Surge voltage resistance / rated value	8 kV
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
• for main current circuit / at DC / maximum	500 V

Protection class	
Protection class IP	IP20
Protective function of the overcurrent release	LI

Current	
Operating current / at 45 °C / rated value	80 A
Continuous current / rated value	80 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	80 A
• of instantaneous short-circuit trip unit / initial value	1 000 A
• of instantaneous short-circuit trip unit / Full-scale value	1 000 A

Main circuit	
Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
Operating current	
• at 40 °C / rated value	80 A
• at 50 °C / rated value	80 A
• at 55 °C / rated value	74.4 A
• at 60 °C / rated value	74.4 A
• at 65 °C / rated value	68.8 A

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• at 70 °C / rated value	68.8 A

Auxiliary circuit	
Number of CO contacts / for auxiliary contacts	0
Number of NC contacts / for auxiliary contacts	0
Number of NO contacts / for auxiliary contacts	0

Suitability	
Suitability for use	system protection

Adjustable parameters	
Adjustable pick-up value current / of the current-dependent overload release / initial value	64 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	No
• Overload protection	Yes

Short circuit	
Operational short-circuit current breaking capacity (Ics)	
• at 240 V / rated value	65 kA
• at 415 V / rated value	55 kA
• at 500 V / rated value	14 kA
• at 690 V / rated value	4 kA
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V / rated value	65 kA
• at 415 V / rated value	55 kA
• at 440 V / rated value	25 kA
• at 480 V / acc. to NEMA / rated value	25 kA
• at 500 V / rated value	18 kA
• at 600 V / acc. to NEMA / rated value	8 kA
• at 690 V / rated value	8 kA

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Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of electrical connection / for main current circuit	box terminal

Mechanical Design

Height	157.5 mm
Width	104.5 mm
Depth	106.5 mm
Mounting type	fixed mounting

Certificates

Certificate of suitability	IEC, standard switching capacity (N)
Reference code	
• acc. to DIN EN 61346-2	Q

General Product Approval				EMC	Declaration of Conformity
	Miscellaneous	TSE	KC		
CCC				C-Tick	EG-Konf.

Test Certificates	Shipping Approval				
Special Test Certificate	ABS	BUREAU VERITAS	LRS	PRS	RINA

Shipping Approval	other			
RMRS	Environmental Confirmations	Miscellaneous	Confirmation	Manufacturer Declaration

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=3VL1708-1DD33-0AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VL1708-1DD33-0AA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1708-1DD33-0AA0

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CAx-Online-Generator
http://www.siemens.com/cax

Tender specifications
http://www.siemens.com/specifications

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