

circuit breaker VL160X N standard breaking capacity I_{cu}=55kA, 415V AC 3-pole, line protection Electronic Trip Unit TM, LI I_n=63A, rated current I_r=63A, overload protection II=600A, short-circuit prot. without auxiliary release Auxiliary/alarm switch mounting kit 2 AUX (1 NO+1 NC)+1 AS (1 NO)

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
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 U _e / max.	690 V
Insulation voltage	
• rated value	800 V
• at AC / 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	63 A
Continuous current / rated value	63 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	63 A
• of instantaneous short-circuit trip unit / initial value	600 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 current	
• at 40 °C / rated value	63 A
• at 50 °C / rated value	63 A
• at 55 °C / rated value	58.6 A
• at 60 °C / rated value	58.6 A
• at 65 °C / rated value	54.2 A
• at 70 °C / rated value	54.2 A

Auxiliary circuit

Number of CO contacts / for auxiliary contacts	0
Number of NC contacts / for auxiliary contacts	1
Number of NO contacts / for auxiliary contacts	2

Suitability

Suitability for use	system protection
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Adjustable parameters

Adjustable pick-up value current / of the current-dependent overload release / initial value	63 A
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Product details

Product component	
• Trip indicator	Yes
• Auxiliary switch	Yes
• 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	fixed

• 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

Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of connectable conductor cross-sections	
• for main contacts / with flexible busbar	12 x 10 mm
• for main contacts / solid	2.5 ... 95 mm ²
• for main contacts / finely stranded / with core end processing	2.5 ... 50 mm ²
• for main contacts / stranded	2.5 ... 95 mm ²
• for auxiliary contacts / solid	0.75 ... 1.5 mm ²
• for auxiliary contacts / finely stranded / with core end processing	0,75 ... 1.0 mm ²
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
• during operation	0 ... 70 °C
• during storage	-40 ... +80 °C

Certificates

Certificate of suitability	IEC, standard switching capacity (N)
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Reference code

- acc. to DIN EN 61346-2

Q

General Product Approval	EMC	Declaration of Conformity
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CCC

[Miscellaneous](#)

[TSE](#)

[KC](#)



C-Tick



EG-Konf.

Test Certificates	Shipping Approval
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[Special Test Certificate](#)



ABS



LRS



PRS



RINA

Shipping Approval	other
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RMRS

[Miscellaneous](#)

[Environmental Conformations](#)

[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=3VL1706-1DA33-0AD1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL1706-1DA33-0AD1>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1706-1DA33-0AD1

CAX-Online-Generator

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

Tender specifications

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