

circuit breaker VL160X N standard breaking capacity I_{cu}=55kA, 415V AC 3-pole, line protection Trip Unit TM, LI I_n=50A, rated current I_r=50A, overload protection II=600A, 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
mechanical service life (operating cycles) typical	20 000
electrical endurance (operating cycles) typical	10 000
utilization category	A
performance class for circuit breaker	N
reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750	Q
operating frequency maximum	120 1/s
Voltage	
Rated operational voltage U _e max.	690 V
<ul style="list-style-type: none"> insulation voltage rated value insulation voltage (U_i) at AC rated value 	800 V
surge voltage resistance rated value	8 kV
operating voltage	
<ul style="list-style-type: none"> rated value maximum for main current circuit at AC at 50 Hz maximum for main current circuit at AC at 60 Hz maximum for main current circuit at DC maximum 	690 V 690 V 690 V 500 V
Protection class	
protection class IP	IP20
protection function of the overcurrent release	LI
Current	
operational current	
<ul style="list-style-type: none"> at 40 °C rated value at 45 °C rated value at 50 °C rated value at 55 °C rated value at 60 °C rated value at 65 °C rated value at 70 °C rated value 	50 A 50 A 50 A 46.5 A 46.5 A 43 A 43 A
continuous current rated value	50 A
derating temperature for the rated value of the continuous current	50 °C
adjustable current response value current	
<ul style="list-style-type: none"> of the current-dependent overload release full-scale value of instantaneous short-circuit trip unit minimum of instantaneous short-circuit trip unit maximum 	50 A 600 A 600 A
Main circuit	
operating frequency	
<ul style="list-style-type: none"> 1 rated value 2 rated value 	50 Hz 60 Hz
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 current response value current of the current-dependent overload release initial value	50 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	fixed
• grounding protection	No
• for neutral conductors short-circuit and overload proof	No
• overload protection	Yes
Short circuit	
operating 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 according to NEMA rated value	25 kA
• at 500 V rated value	18 kA
• at 600 V according 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
• solid	2.5 ... 95 mm ²
• finely stranded with core end processing	2.5 ... 50 mm ²
• stranded	2.5 ... 95 mm ²
type of connectable conductor cross-sections for auxiliary contacts	
• solid	0.75 ... 1.5 mm ²
• 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
fastening method	fixed mounting
Environmental conditions	
ambient temperature during operation	
• minimum	0 °C
• maximum	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	80 °C
General Product Approval	



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LRS



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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=3VL1705-1DA33-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL1705-1DA33-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1705-1DA33-0AA0

CAx-Online-Generator

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

Tender specifications

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



