

circuit breaker VL160X N standard breaking capacity I_{cu}=55kA, 415V AC 4-pole, line protection Trip Unit TM, LI I_n=20A, rated current I_r=20A, overload protection II=300A, short-circuit prot. N unprotected with screw terminals 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	4
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 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
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	20 A
Product details	
product component <ul style="list-style-type: none"> trip indicator auxiliary switch voltage trigger undervoltage release undervoltage release with leading contact 	No No No No No
product extension optional motor drive	Yes
Product function	
product function	

<ul style="list-style-type: none"> • of thermal overload trip unit • grounding protection • for neutral conductors short-circuit and overload proof • overload protection 	fixed No No Yes
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Short circuit

operating short-circuit current breaking capacity (Ics)	
<ul style="list-style-type: none"> • at 240 V rated value • at 415 V rated value • at 500 V rated value • at 690 V rated value 	65 kA 55 kA 14 kA 4 kA
maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at 240 V rated value • at 415 V rated value • at 440 V rated value • at 480 V according to NEMA rated value • at 500 V rated value • at 600 V according to NEMA rated value • at 690 V rated value 	65 kA 55 kA 25 kA 25 kA 18 kA 8 kA 8 kA

Connections

arrangement of electrical connectors for main current circuit	front side
type of connectable conductor cross-sections for main contacts	
<ul style="list-style-type: none"> • with flexible busbar • solid • finely stranded with core end processing • stranded 	12 x 10 mm 2.5 ... 95 mm ² 2.5 ... 50 mm ² 2.5 ... 95 mm ²
type of connectable conductor cross-sections for auxiliary contacts	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing 	0.75 ... 1.5 mm ² 0,75 ... 1.0 mm ²
type of electrical connection for main current circuit	screw-type terminals

Mechanical Design

height	157.5 mm
width	139.5 mm
depth	106.5 mm
fastening method	fixed mounting

Environmental conditions

ambient temperature during operation	
<ul style="list-style-type: none"> • minimum • maximum 	0 °C 70 °C
ambient temperature during storage	
<ul style="list-style-type: none"> • minimum • maximum 	-40 °C 80 °C

Approvals Certificates

General Product Approval



[Confirmation](#)



[KC](#)

General Product Approval	EMV	Functional Safety	Test Certificates	Marine / Shipping
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[Type Examination Certificate](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Confirmation](#)

[Confirmation](#)

other	Railway	Environment
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[Miscellaneous](#)

[Special Test Certificate](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3VL1702-1EH46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL1702-1EH46-0AA0>

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

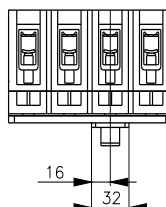
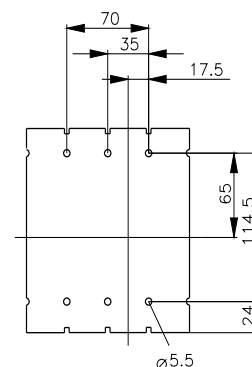
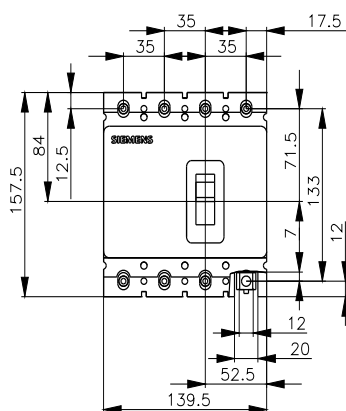
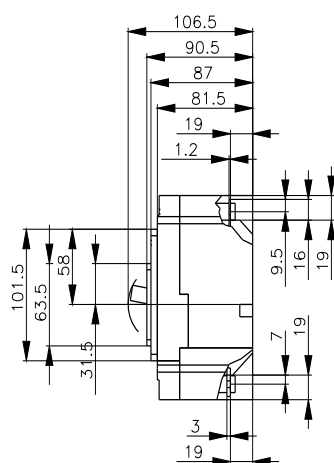
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1702-1EH46-0AA0

CAX-Online-Generator

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

Tender specifications

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



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