

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=40...50A, overload prot. I_l=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
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	40 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	

• of thermal overload trip unit	adjustable
• 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

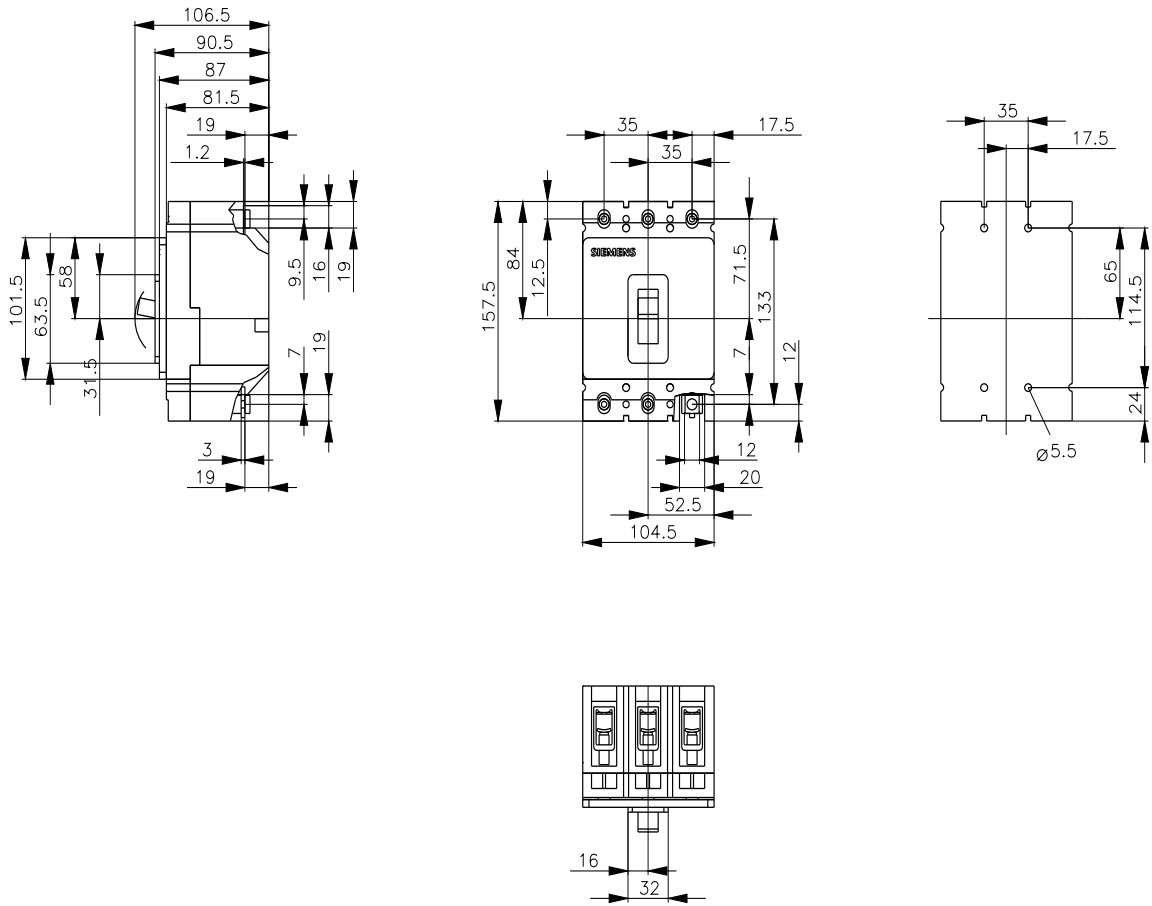
ambient temperature during operation	
• minimum	0 °C
• maximum	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	80 °C

Approvals Certificates

General Product Approval	other	Environment
Confirmation		
	Confirmation	Environmental Confirmations
		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=3VL1705-1DD33-0AA0>
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3VL1705-1DD33-0AA0>
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1705-1DD33-0AA0
CAx-Online-Generator
<http://www.siemens.com/cax>



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