SIEMENS

Data sheet 3VL1706-1DD33-0AA0

circuit breaker VL160X N standard breaking capacity Icu=55kA, 415V AC 3-pole, line protection Trip Unit TM, LI In=63A, rated current Ir=50...63A, overload prot. 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 Ue max.	690 V
● insulation voltage rated value	800 V
● insulation voltage (Ui) 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
protection function of the overcurrent release	LI
Main circuit	
operating frequency	
● 1 rated value	50 Hz
● 2 rated value	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	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 mm²
● finely stranded with core end processing	2.5 ... 50 mm²
● stranded	2.5 ... 95 mm²
type of connectable conductor cross-sections for auxiliary contacts	
● solid	0.75 ... 1.5 mm²
● finely stranded with core end processing	0,75 ... 1.0 mm²
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	

CE EG-Konf.	CCC	Declaration of Conformity	UL	Miscellaneous	Declaration of Conformity

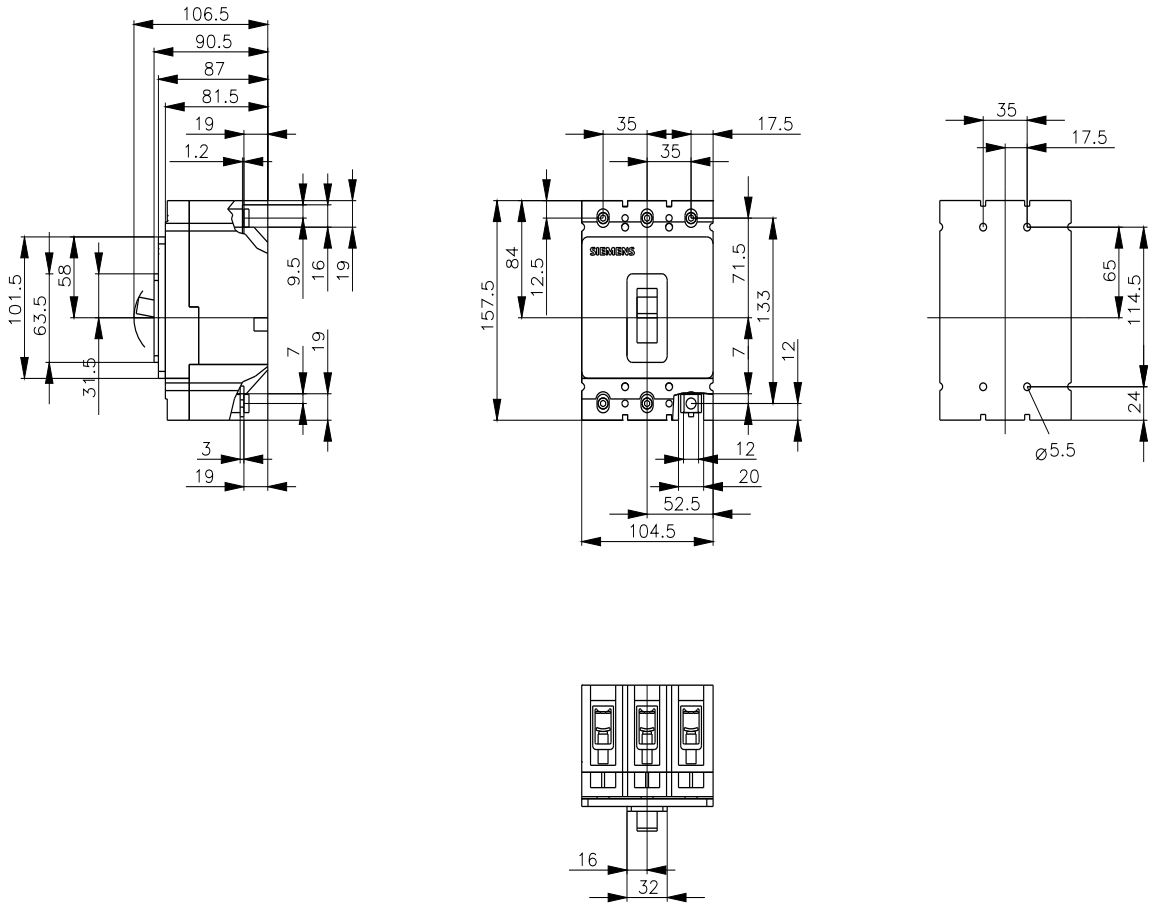
General Product Approval		EMV	For use in hazardous locations		
RCM	TÜV	KC	ATEX	IECEx	FM

For use in hazardous locations	Radio Equipment Type Approval Certificate	Environment	Industrial Communication

CCC-Ex KC Confirmation PROFINET

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=3VL1706-1DD33-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VL1706-1DD33-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1706-1DD33-0AA0
CAx-Online-Generator
http://www.siemens.com/cax
Tender specifications
http://www.siemens.com/specifications



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