SIEMENS

Data sheet 3VL1712-1EH43-0AA0

circuit breaker VL160X N standard breaking capacity Icu=55kA, 415V AC 4-pole, line protection Electronic Trip Unit TM, LI In=125A, rated current Ir=125A, overload protection II=1000A, short-circuit prot. N unprotected 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 (switching cycles) / typical	20 000
electrical endurance (switching cycles) / typical	10 000
utilization category	A
performance class for circuit breaker	N
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 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
Current	
operational current	
● at 40 °C / rated value	125 A
● at 45 °C / rated value	125 A
● at 50 °C / rated value	125 A
● at 55 °C / rated value	116.3 A
● at 60 °C / rated value	116.3 A
● at 65 °C / rated value	107.5 A
● at 70 °C / rated value	107.5 A
continuous current / rated value	125 A
derating temperature / for the rated value of the continuous current	50 °C
adjustable current response value current	
● of the current-dependent overload release / full-scale value	125 A
● of instantaneous short-circuit trip unit / minimum	1 000 A
● of instantaneous short-circuit trip unit / maximum	1 000 A
Main circuit	
operating frequency	
● 1 / rated value	50 Hz
● 2 / rated value	60 Hz
Auxiliary circuit	

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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	125 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	
breaking capacity operating short-circuit current (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
breaking capacity maximum short-circuit current (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
● 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	139.5 mm
depth	106.5 mm
fastening method	fixed mounting
Environmental conditions	
ambient temperature / during operation	
● minimum	0 °C
● maximum	70 °C

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ambient temperature / during storage	
• minimum	-40 °C
• maximum	80 °C

General Product Approval | **EMC**

Miscellaneous | TSE | KC

Declaration of Conformity | **Test Certificates** | **Marine / Shipping**

Special Test Certificate

Marine / Shipping | **other**

Environmental Confirmations | Confirmation | Miscellaneous

other

Miscellaneous

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=3VL1712-1EH43-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VL1712-1EH43-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1712-1EH43-0AA0
CAx-Online-Generator
http://www.siemens.com/cax
Tender specifications
http://www.siemens.com/specifications

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