

circuit breaker VL160N standard breaking capacity Icu=55kA, 415V AC 4-pole, line protection Trip Unit TM, LI In=100A, rated current IR=80...100A, overload protection, II=500...1000A, short-circuit protection N protected 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	3VL2
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
<ul style="list-style-type: none"> insulation voltage rated value insulation voltage (Ui) 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	LIN
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	80 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
- grounding protection
- for neutral conductors short-circuit and overload proof
- overload protection

adjustable
No
Yes
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 20 kA
- at 690 V rated value 6 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 25 kA
- at 600 V according to NEMA rated value 12 kA
- at 690 V rated value 12 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 screw-type terminals

Mechanical Design

height 174.5 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

ambient temperature during storage

- minimum -40 °C
- maximum 80 °C

Approvals Certificates

General Product Approval

Test Certificates



[Confirmation](#)



[Special Test Certificate](#)

other

Environment

[Confirmation](#)

[Miscellaneous](#)

[Miscellaneous](#)

[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=3VL2710-1EM46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL2710-1EM46-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL2710-1EM46-0AA0

CAX-Online-Generator

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

Tender specifications

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

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