

circuit breaker VL160N standard breaking capacity  $I_{cu}=55kA$ , 415V AC 4-pole, line protection Electronic Trip Unit ETU12, LIG  $I_n=100A$ , rated current  $I_R=40\ldots100A$ , overload protection,  $I_L=1.25$  to  $11 \times I_N$ , 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	ETU12
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 $U_e$ max.	690 V
<ul style="list-style-type: none"> <li>insulation voltage rated value</li> <li>insulation voltage (<math>U_i</math>) at AC rated value</li> </ul>	800 V
surge voltage resistance rated value	8 kV
operating voltage <ul style="list-style-type: none"> <li>rated value maximum</li> <li>for main current circuit at AC at 50 Hz maximum</li> <li>for main current circuit at AC at 60 Hz maximum</li> <li>for main current circuit at DC maximum</li> </ul>	690 V 690 V 690 V 500 V
Protection class	
protection class IP	IP20
protection function of the overcurrent release	LING
Main circuit	
operating frequency <ul style="list-style-type: none"> <li>1 rated value</li> <li>2 rated value</li> </ul>	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"> <li>trip indicator</li> <li>auxiliary switch</li> <li>voltage trigger</li> <li>undervoltage release</li> <li>undervoltage release with leading contact</li> </ul>	No No No No No
product extension optional motor drive	Yes
Product function	
product function	

• of thermal overload trip unit	adjustable
• grounding protection	Yes
• for neutral conductors short-circuit and overload proof	Yes
• 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	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 mm <sup>2</sup>
• finely stranded with core end processing	2.5 ... 50 mm <sup>2</sup>
• stranded	2.5 ... 95 mm <sup>2</sup>
type of connectable conductor cross-sections for auxiliary contacts	
• solid	0.75 ... 1.5 mm <sup>2</sup>
• finely stranded with core end processing	0,75 ... 1.0 mm <sup>2</sup>
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	-25 °C
• maximum	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	80 °C

#### Approvals Certificates

General Product Approval	Test Certificates
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[Confirmation](#)



EG-Konf.



[Special Test Certificate](#)

Marine / Shipping	other
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[Confirmation](#)

[Miscellaneous](#)

[Miscellaneous](#)

Dangerous Good	Environment
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[Transport Information](#)

[Environmental Con-](#)

[Environmental Con-](#)

#### 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=3VL2710-1TN46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL2710-1TN46-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL2710-1TN46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL2710-1TN46-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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

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