

circuit breaker VL160X N standard breaking capacity  $I_{cu}=55\text{kA}$ , 415V AC 3-pole, line protection Trip Unit TM, LI  $I_n=100\text{A}$ , rated current  $I_r=80\ldots100\text{A}$ , overload prot. II=1000A, 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	Q
according to IEC 204-2 according to IEC 750	
operating frequency maximum	120 1/s
Voltage	
Rated operational voltage $U_e$ max.	690 V
• insulation voltage rated value	800 V
• insulation voltage ( $U_i$ ) 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	80 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
- grounding protection
- for neutral conductors short-circuit and overload proof
- overload protection

adjustable  
No  
No  
Yes

#### Short circuit

operating short-circuit current breaking capacity (Ics)

- at 240 V rated value
- at 415 V rated value
- at 500 V rated value
- at 690 V rated value

65 kA  
55 kA  
14 kA  
4 kA

maximum short-circuit current breaking capacity (Icu)

- at 240 V rated value
- at 415 V rated value
- at 440 V rated value
- at 480 V according to NEMA rated value
- at 500 V rated value
- at 600 V according to NEMA rated value
- at 690 V rated value

65 kA  
55 kA  
25 kA  
25 kA  
18 kA  
8 kA  
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
- solid
- finely stranded with core end processing
- stranded

12 x 10 mm  
2.5 ... 95 mm<sup>2</sup>  
2.5 ... 50 mm<sup>2</sup>  
2.5 ... 95 mm<sup>2</sup>

type of connectable conductor cross-sections for auxiliary contacts

- solid
- finely stranded with core end processing

0.75 ... 1.5 mm<sup>2</sup>  
0,75 ... 1.0 mm<sup>2</sup>

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
- maximum

0 °C  
70 °C

ambient temperature during storage

- minimum
- maximum

-40 °C  
80 °C

#### General Product Approval



[Confirmation](#)

[Miscellaneous](#)

[TSE](#)

[KC](#)



EMC

Declaration of Conformity

Test Certificates

Marine / Shipping



C-Tick



EG-Konf.



[Special Test Certificate](#)



ABS



BUREAU  
VERITAS

Marine / Shipping

other



[Confirmation](#)

other

Environment

[Miscellaneous](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

## Further information

**Siemens has decided to exit the Russian market (see here).**

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

**Siemens is working on the renewal of the current EAC certificates.**

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

**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=3VL1710-1DD33-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL1710-1DD33-0AA0>

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

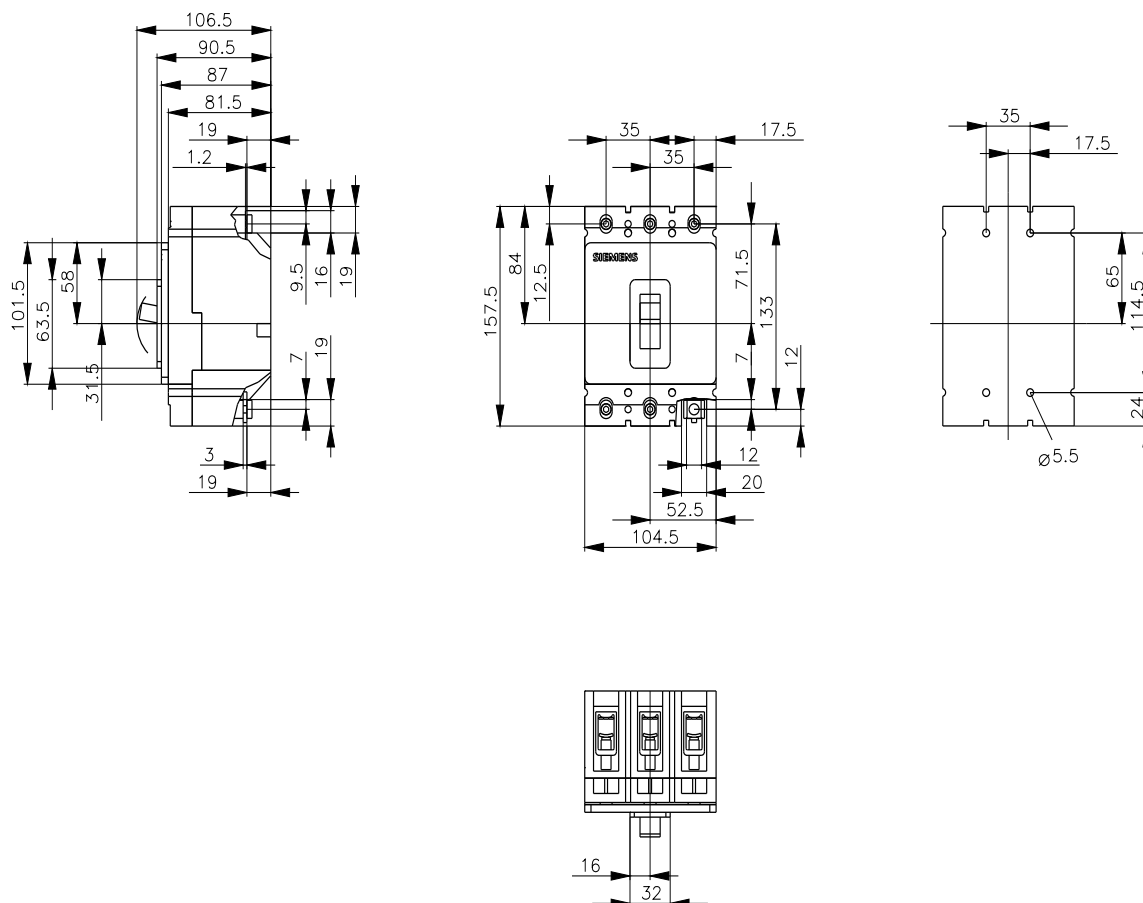
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL1710-1DD33-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1710-1DD33-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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