

circuit breaker VL160X H high breaking capacity I<sub>cu</sub>=70kA, 415V AC 3-pole, line protection Trip Unit TM, LI I<sub>n</sub>=16A, rated current I<sub>r</sub>=16A, overload protection II=300A, 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 U <sub>e</sub> max.	690 V
<ul style="list-style-type: none"> <li>insulation voltage rated value</li> <li>insulation voltage (U<sub>i</sub>) 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	LI
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	16 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
- grounding protection
- for neutral conductors short-circuit and overload proof
- overload protection

fixed  
No  
No  
Yes

### Short circuit

operating short-circuit current breaking capacity (Ics)	
<ul style="list-style-type: none"> <li>• at 240 V rated value</li> <li>• at 415 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>	75 kA 70 kA 23 kA 6 kA
maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> <li>• at 240 V rated value</li> <li>• at 415 V rated value</li> <li>• at 440 V rated value</li> <li>• at 480 V according to NEMA rated value</li> <li>• at 500 V rated value</li> <li>• at 600 V according to NEMA rated value</li> <li>• at 690 V rated value</li> </ul>	100 kA 70 kA 42 kA 42 kA 30 kA 12 kA 12 kA

### Connections

arrangement of electrical connectors for main current circuit	front side
type of connectable conductor cross-sections for main contacts	
<ul style="list-style-type: none"> <li>• with flexible busbar</li> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• stranded</li> </ul>	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	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>	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	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0 °C 70 °C
ambient temperature during storage	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	-40 °C 80 °C

### Approvals Certificates

General Product Approval	Test Certificates
<a href="#">Confirmation</a>    	<a href="#">Special Test Certificate</a>

other	Environment
<a href="#">Miscellaneous</a>	<a href="#">Confirmation</a>
<a href="#">Miscellaneous</a>	<a href="#">Environmental Confirmations</a>
<a href="#">Environmental Confirmations</a>	<a href="#">Environmental Confirmations</a>

### 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=3VL1796-2DA33-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL1796-2DA33-0AA0>

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

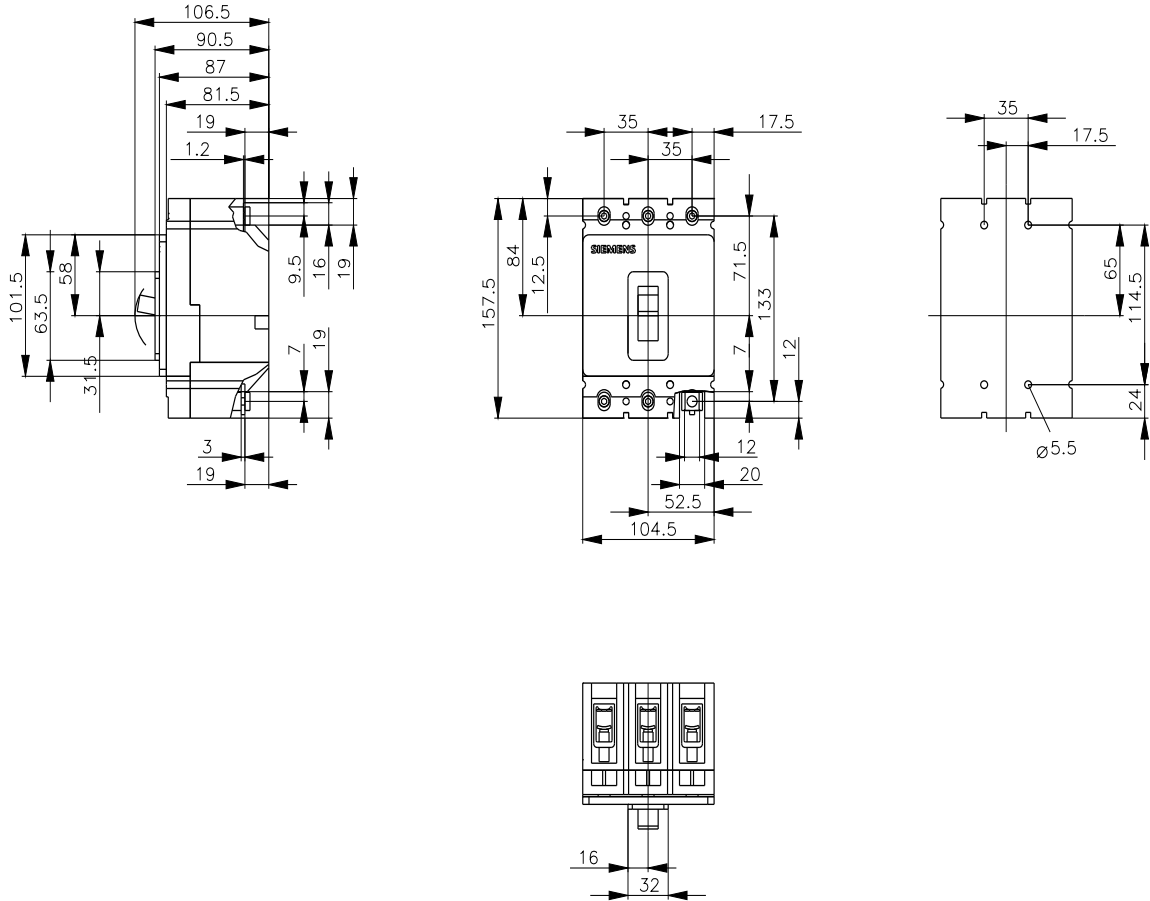
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL1796-2DA33-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1796-2DA33-0AA0)

CAX-Online-Generator

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

Tender specifications

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



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