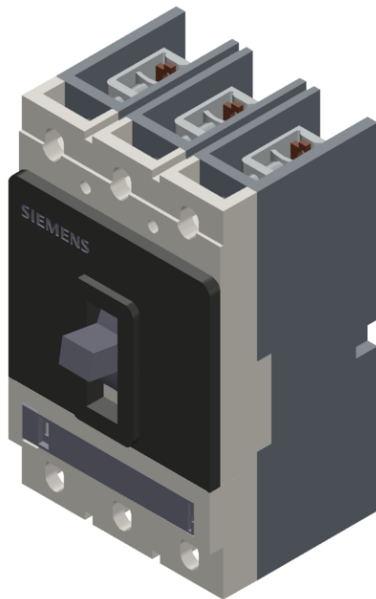


circuit breaker VL160H high breaking capacity  $I_{cu}=70\text{kA}$ , 415V AC 3-pole, line protection Electronic Trip Unit ETU12, LIG 3 phases/3 lines  $I_n=100\text{A}$ , rated current  $I_R=40\text{...}100\text{A}$ , overload protection,  $I_l=1.25$  to  $11\times I_N$ , short-circuit protection without auxiliary release ETU communication-capable 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	3
Size of the circuit-breaker	3VL2
Electrical endurance (switching cycles) / typical	10 000

Usage category	A
Performance class for circuit breaker	N
Mechanical service life (switching cycles) / typical	20 000
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 U <sub>e</sub> / max.	690 V
Insulation voltage	
• rated value	800 V
• 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	LIG

### Current

Continuous current / rated value	100 A
Derating temperature / for the rated value of the continuous current	50 °C
adjustable pick-up value current	
• of the current-dependent overload release / Full-scale value	100 A
• of instantaneous short-circuit trip unit / initial value	125 A
• of instantaneous short-circuit trip unit / Full-scale value	1 100 A

### Main circuit

Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
Operating current	
• at 40 °C / rated value	100 A
• at 50 °C / rated value	100 A
• at 55 °C / rated value	95 A
• at 60 °C / rated value	95 A

- at 65 °C / rated value 80 A
- at 70 °C / rated value 80 A

### 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
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### Adjustable parameters

adjustable pick-up value current / of the current-dependent overload release / initial value	40 A
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### 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	adjustable
• Ground fault protection	Yes
• for neutral conductors / Short-circuit and overload proof	No
• Overload protection	Yes

### Short circuit

Operational short-circuit current breaking capacity (Ics)	
• at 240 V / rated value	75 kA
• at 415 V / rated value	70 kA
• at 500 V / rated value	30 kA
• at 690 V / rated value	6 kA
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V / rated value	100 kA
• at 415 V / rated value	70 kA
• at 440 V / rated value	50 kA
• at 480 V / acc. to NEMA / rated value	50 kA
• at 500 V / rated value	40 kA
• at 600 V / acc. 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	
<ul style="list-style-type: none"> <li>• with flexible busbar</li> </ul>	12 x 10 mm
<ul style="list-style-type: none"> <li>• solid</li> </ul>	2.5 ... 95 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded / with core end processing</li> </ul>	2.5 ... 50 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• stranded</li> </ul>	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> </ul>	0.75 ... 1.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded / with core end processing</li> </ul>	0,75 ... 1.0 mm <sup>2</sup>
Type of electrical connection / for main current circuit	box terminal

## Mechanical Design




Height	174.5 mm
Width	104.5 mm
Depth	106.5 mm
Mounting type	fixed mounting



## Environmental conditions

Ambient temperature / during operation	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	-25 °C
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	70 °C
Ambient temperature / during storage	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	80 °C

## Certificates

certificate of suitability	IEC, high switching capacity (H)
<ul style="list-style-type: none"> <li>• reference code / acc. to DIN EN 61346-2</li> </ul>	Q

General Product Approval		EMC	Declaration of Conformity	Test Certificates
 CCC	<a href="#">Miscellaneous</a>	<a href="#">TSE</a>	 C-Tick	 EG-Konf.
				<a href="#">Special Test Certificate</a>

Shipping Approval		other			
 RINA	 RMRS	<a href="#">Environmental Confirmations</a>	<a href="#">Confirmation</a>	<a href="#">Manufacturer Declaration</a>	<a href="#">Miscellaneous</a>

### 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=3VL2710-2ML33-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL2710-2ML33-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL2710-2ML33-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL2710-2ML33-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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