

circuit breaker VL1600H high breaking capacity I<sub>cu</sub>=70kA, 415V AC 4-pole, non-auto. air circ. br. trip unit magnetic I<sub>n</sub>=1600A, rated current I<sub>I</sub>=14400A, short-circuit protection without auxiliary release without auxiliary/alarm switch

Model	
type of the driving mechanism / motor drive	No
design of the overcurrent release	M
General technical data	
number of poles	4
size of the circuit-breaker	3VL8
mechanical service life (switching cycles) / typical	3 000
electrical endurance (switching cycles) / typical	1 500
utilization category	A
performance class for circuit breaker	N
reference code / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750	Q
operating frequency / maximum	30 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	I
Current	
operational current	
• at 40 °C / rated value	1 600 A
• at 45 °C / rated value	1 600 A
• at 50 °C / rated value	1 600 A
• at 55 °C / rated value	1 488 A
• at 60 °C / rated value	1 488 A
• at 65 °C / rated value	1 376 A
• at 70 °C / rated value	1 376 A
continuous current / rated value	1 600 A
derating temperature / for the rated value of the continuous current	50 °C
adjustable current response value current	
• of instantaneous short-circuit trip unit / initial value	14 400 A
• of instantaneous short-circuit trip unit / full-scale value	14 400 A
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	non-automatic circuit-breakers
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>	<ul style="list-style-type: none"> <li>No</li> <li>No</li> <li>No</li> <li>No</li> <li>No</li> </ul>
product extension / optional / motor drive	Yes
Product function	
product function	
<ul style="list-style-type: none"> <li>• of thermal overload trip unit</li> <li>• grounding protection</li> <li>• for neutral conductors / short-circuit and overload proof</li> <li>• overload protection</li> </ul>	<ul style="list-style-type: none"> <li>without</li> <li>No</li> <li>No</li> <li>No</li> </ul>
Short circuit	
breaking capacity operating short-circuit current (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>	<ul style="list-style-type: none"> <li>50 kA</li> <li>35 kA</li> <li>30 kA</li> <li>15 kA</li> </ul>
breaking capacity maximum short-circuit current (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 / acc. to NEMA / rated value</li> <li>• at 500 V / rated value</li> <li>• at 600 V / acc. to NEMA / rated value</li> <li>• at 690 V / rated value</li> </ul>	<ul style="list-style-type: none"> <li>100 kA</li> <li>70 kA</li> <li>50 kA</li> <li>50 kA</li> <li>40 kA</li> <li>30 kA</li> <li>30 kA</li> </ul>
Connections	
arrangement of electrical connectors / for main current circuit	front side
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>	<ul style="list-style-type: none"> <li>0.75 ... 1.5 mm<sup>2</sup></li> <li>0,75 ... 1.0 mm<sup>2</sup></li> </ul>
type of electrical connection / for main current circuit	without connection accessoires
Mechanical Design	
height	406.5 mm
width	305 mm
depth	333.5 mm
fastening method	fixed mounting
Environmental conditions	
ambient temperature / during operation	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<ul style="list-style-type: none"> <li>0 °C</li> <li>70 °C</li> </ul>
ambient temperature / during storage	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<ul style="list-style-type: none"> <li>-40 °C</li> <li>80 °C</li> </ul>
Certificates	
certificate of suitability	IEC, high switching capacity (H)
reference code	

**General Product Approval** **EMC** **Test Certificates**



[Miscellaneous](#)

[TSE](#)



[Special Test Certificate](#)

**Marine / Shipping**



**Marine / Shipping** **other**



[Confirmation](#)

[Manufacturer Declaration](#)

[Environmental Confirmations](#)

[Miscellaneous](#)

[Miscellaneous](#)

**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?mfb=3VL8716-2EE40-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL8716-2EE40-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VL8716-2EE40-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VL8716-2EE40-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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

