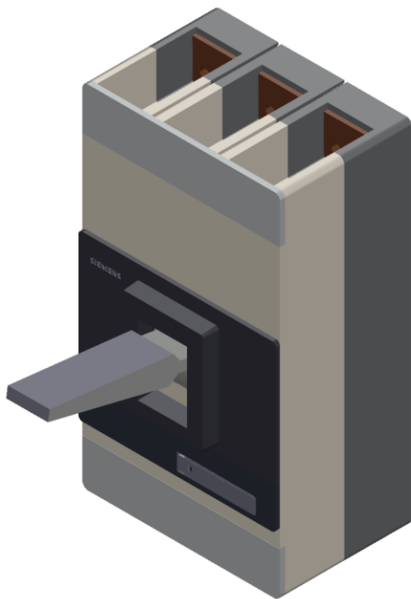


circuit breaker VL1600 UL; type PG (cat no. HPX3B160) non-interchangeable frame, with circuit breaker approval acc. to UL 489 high breaking capacity 3-pole, NEMA rating 65kA/480V, (molded case circuit breaker) trip unit TM, LI TA=40°C In=< 1600A, rated current II=7000...12000A short-circuit protection IR=1600A ETU for line protection without connection accessories 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	3VL8 UL
Electrical endurance (switching cycles) / typical	1 500

Usage category	A
Performance class for circuit breaker	N
Mechanical service life (switching cycles) / typical	3 000
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

### Protection class

Protection class IP	IP20
Protective function of the overcurrent release	LI

### Current

Operating current / at 45 °C / rated value	1 488 A
Continuous current / rated value	1 600 A
Derating temperature / for the rated value of the continuous current	
• acc. to UL 489	40 °C
Adjustable pick-up value current	
• of the current-dependent overload release / Full-scale value	1 600 A
• of instantaneous short-circuit trip unit / initial value	7 000 A
• of instantaneous short-circuit trip unit / Full-scale value	12 000 A

### Main circuit

Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
Operating voltage	
• rated value / maximum	690 V
• for main current circuit / at AC / at 50 Hz / acc. to UL 489 / maximum	600 V
• for main current circuit / at AC / at 50 Hz / maximum	690 V
• for main current circuit / at AC / at 60 Hz / acc. to UL 489 / maximum	600 V
• for main current circuit / at AC / at 60 Hz / maximum	690 V

<ul style="list-style-type: none"> <li>• for main current circuit / at DC / acc. to UL 489 / maximum</li> </ul>	500 V
Operating current	
<ul style="list-style-type: none"> <li>• at 40 °C / rated value</li> </ul>	1 600 A
<ul style="list-style-type: none"> <li>• at 50 °C / rated value</li> </ul>	1 488 A
<ul style="list-style-type: none"> <li>• at 55 °C / rated value</li> </ul>	1 376 A
<ul style="list-style-type: none"> <li>• at 60 °C / rated value</li> </ul>	1 376 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

Adjustable parameters	
Adjustable pick-up value current / of the current-dependent overload release / initial value	1 600 A

Product details	
Product component	
<ul style="list-style-type: none"> <li>• Trip indicator</li> </ul>	No
<ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>	No
<ul style="list-style-type: none"> <li>• Voltage trigger</li> </ul>	No
<ul style="list-style-type: none"> <li>• undervoltage release</li> </ul>	No
<ul style="list-style-type: none"> <li>• undervoltage release with leading contact</li> </ul>	No
Product extension / optional / motor drive	Yes

Product function	
Product function	
<ul style="list-style-type: none"> <li>• of thermal overload trip unit</li> </ul>	fixed
<ul style="list-style-type: none"> <li>• Ground fault protection</li> </ul>	No
<ul style="list-style-type: none"> <li>• for neutral conductors / Short-circuit and overload proof</li> </ul>	No
<ul style="list-style-type: none"> <li>• Overload protection</li> </ul>	Yes

Short circuit	
Operational short-circuit current breaking capacity (Ics)	
<ul style="list-style-type: none"> <li>• at 240 V / rated value</li> </ul>	50 kA
<ul style="list-style-type: none"> <li>• at 415 V / rated value</li> </ul>	35 kA
<ul style="list-style-type: none"> <li>• at 690 V / rated value</li> </ul>	15 kA
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> <li>• at 240 V / rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at 415 V / rated value</li> </ul>	70 kA

- at 480 V / acc. to NEMA / rated value 65 kA
- at 600 V / acc. to NEMA / rated value 35 kA
- at 690 V / rated value 30 kA

### Connections

Arrangement of electrical connectors / for main current circuit	front side
<b>Type of connectable conductor cross-sections</b>	
• for main contacts / with flexible busbar	2 x 60 x 10 mm
• for auxiliary contacts / solid	0.75 ... 1.5 mm <sup>2</sup>
• for auxiliary contacts / finely stranded / with core end processing	0,75 ... 1.0 mm <sup>2</sup>
Type of electrical connection / for main current circuit	without connection accessoires

### Mechanical Design

Height	406.5 mm
Width	228.5 mm
Depth	333.5 mm
Mounting type	fixed mounting

### Environmental conditions

Ambient temperature	0 ... 70 °C
	-40 ... +80 °C

### Certificates

Certificate of suitability	UL high switching capacity (H), non-interchangeable
Reference code	Q
• acc. to DIN EN 61346-2	

<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>	<b>Test Certificates</b>
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[Miscellaneous](#)



[Special Test Certificate](#)

<b>Shipping Approval</b>	<b>other</b>
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[Environmental Confirmations](#)

[Miscellaneous](#)

[Confirmation](#)

[Manufacturer Declaration](#)

### 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=3VL8116-2KN30-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL8116-2KN30-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL8116-2KN30-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL8116-2KN30-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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