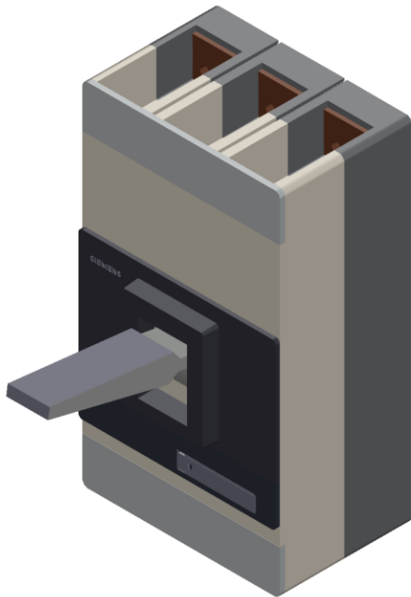


circuit breaker VL1600 UL; type PG (cat no. LPX3B160) non-interchangeable frame, with circuit breaker approval acc. to UL 489 very high breaking capacity 3-pole, NEMA rating 100kA/480V, (molded case circuit breaker) trip unit TM, LI TA=40°C In=< 1600A, rated current II=7000...12000A short-circuit protection 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_e / 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"> • for main current circuit / at DC / acc. to UL 489 / maximum 	500 V
Operating current	
<ul style="list-style-type: none"> • at 40 °C / rated value 	1 600 A
<ul style="list-style-type: none"> • at 50 °C / rated value 	1 488 A
<ul style="list-style-type: none"> • at 55 °C / rated value 	1 376 A
<ul style="list-style-type: none"> • at 60 °C / rated value 	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"> • Trip indicator 	No
<ul style="list-style-type: none"> • Auxiliary switch 	No
<ul style="list-style-type: none"> • Voltage trigger 	No
<ul style="list-style-type: none"> • undervoltage release 	No
<ul style="list-style-type: none"> • undervoltage release with leading contact 	No
Product extension / optional / motor drive	Yes

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

Short circuit	
Operational short-circuit current breaking capacity (Ics)	
<ul style="list-style-type: none"> • at 240 V / rated value 	100 kA
<ul style="list-style-type: none"> • at 415 V / rated value 	50 kA
<ul style="list-style-type: none"> • at 690 V / rated value 	17 kA
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at 240 V / rated value 	200 kA
<ul style="list-style-type: none"> • at 415 V / rated value 	100 kA

- at 480 V / acc. to NEMA / rated value 100 kA
- at 600 V / acc. to NEMA / rated value 65 kA
- at 690 V / rated value 35 kA

Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of connectable conductor cross-sections	
• for main contacts / with flexible busbar	2 x 60 x 10 mm
• for auxiliary contacts / solid	0.75 ... 1.5 mm ²
• for auxiliary contacts / finely stranded / with core end processing	0,75 ... 1.0 mm ²
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 very high switching capacity (L), non-interchangeable
Reference code	Q
• acc. to DIN EN 61346-2	

General Product Approval	EMC	Declaration of Conformity	Test Certificates
 CSA	 UL	 C-Tick	 EG-Konf.
Miscellaneous			Special Test Certificate

Shipping Approval	other
 RMRS	Confirmation Environmental Confirmations Miscellaneous 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=3VL8116-3KN30-0AA0>

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

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

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL8116-3KN30-0AA0

CAX-Online-Generator

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

Tender specifications

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