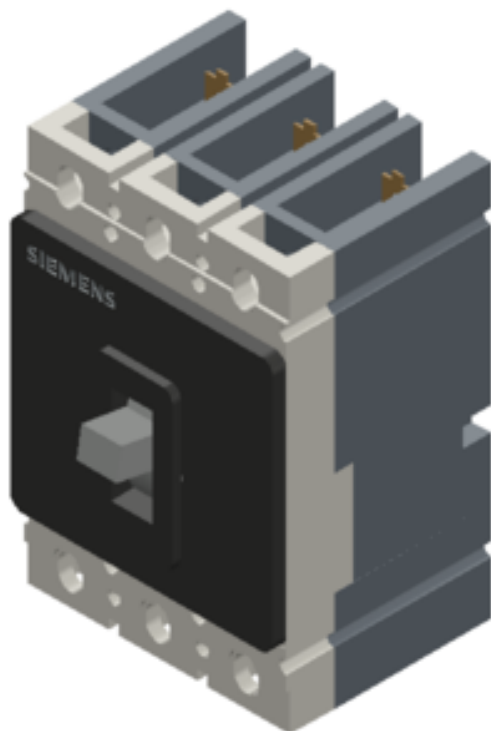




CIRCUIT BREAKER VL 150X UL TYPE CG (CAT NO. NCX3B020) NON-INTERCHANGEABLE FRAME W/APPROVAL CIRCUIT BREAKER TO UL489 STANDARD BREAKING CAPACITY 3-POLE, NEMA RATING 35KA/480V (MOLDED CASE CIRCUIT BREAKER) OVERCURRENT RELEASE TM, LI FUNCTION TU=40DEGR CELSIUS IN=<20A RATED CURRENT II=300A SHORT-CIRCUIT PROT. IR=20A OVERCURRENT RELEASE FOR SYSTEM PROTECTION W/O CONNECTION ACCESSORIES

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 UL
Electrical endurance (switching cycles) / typical		10 000
Usage category		A
Performance class for circuit breaker		N
Mechanical service life (switching cycles) / typical		20 000
Equipment marking / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750		Q
Operating frequency / maximum	1/s	120
Voltage		
Rated operational voltage Ue / max.	V	690
Insulation voltage		
• rated value	V	800
• at AC / rated value	V	800

Surge voltage resistance / rated value	kV	8
Protection class		
Protection class IP		IP20
Protective function of the overcurrent release		LI
Electricity		
Continuous current / rated value	A	20
Derating temperature / for the rated value of the continuous current		
• acc. to UL 489	°C	40
Adjustable response value current		
• of the current-dependent overload release / Full-scale value	A	20
• of the instantaneous short-circuit release / initial value	A	300
• of the instantaneous short-circuit release / Full-scale value	A	300
Main circuit		
Operating frequency		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
Operating voltage		
• for main current circuit / at AC / at 50 Hz / acc. to UL 489 / maximum	V	600
• for main current circuit / at AC / at 50 Hz / maximum	V	690
• for main current circuit / at AC / at 60 Hz / acc. to UL 489 / maximum	V	600
• for main current circuit / at AC / at 60 Hz / maximum	V	690
• for main current circuit / at DC / acc. to UL 489 / maximum	V	250
Operating current		
• at 40 °C / rated value	A	20
• at 50 °C / rated value	A	18.6
• at 55 °C / rated value	A	17.2
• at 60 °C / rated value	A	17.2
Auxiliary circuit		
Number of CO contacts / for auxiliary contacts		0
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Suitability		
Suitability for use		system protection

Adjustable parameters		
Adjustable response value current / of the current-dependent overload release / initial value	A	20
Product details		
Product component • Trip indicator • Auxiliary switch • Voltage trigger • undervoltage release • undervoltage release with leading contact		No Yes No No No
Product expansion / optional / motor drive		Yes
Product function		
Product function • of the thermal overload release • Ground fault protection • for neutral conductors / Short-circuit and overload proof • Overload protection		fixed No No Yes
Short circuit		
Operational short-circuit current breaking capacity (Ics) • at 240 V / rated value • at 415 V / rated value • at 690 V / rated value	kA kA kA	65 40 4
Maximum short-circuit current breaking capacity (Icu) • at 240 V / rated value • at 415 V / rated value • at 480 V / acc. to NEMA / rated value • at 600 V / acc. to NEMA / rated value • at 690 V / rated value	kA kA kA kA kA	65 40 35 8 8
Connections		
Arrangement of electrical connectors / for main current circuit		front side
Type of connectable conductor cross-sections • for main contacts — with flexible busbar — solid — stranded • for auxiliary contacts — solid		17 x 7 mm 2,5 ... 50 mm ² 2.5 ... 50 mm ² 0.75 ... 1.5 mm ²

— 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	mm	157.5
Width	mm	104.5
Depth	mm	106.5
Mounting type		fixed mounting

Environmental conditions		
Ambient temperature		
• during operation / minimum	°C	0
• during operation / maximum	°C	70
• during storage / minimum	°C	-40
• during storage / maximum	°C	80

Certificates		
Certificate of suitability		UL standard switching capacity (N), non-interchangeable
Equipment marking		
• acc. to DIN EN 61346-2		Q

General Product Approval	EMC
--------------------------	-----



[sonstig](#)



Declaration of Conformity	Test Certificates	Shipping Approval	other		
 EG-Konf.	spezielle Prüfbescheinigungen n	 RMRS	sonstig	Umweltbestätigung	Bestätigungen

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VL11021KM300AB1>

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

<http://support.automation.siemens.com/WW/view/en/3VL11021KM300AB1/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL11021KM300AB1

CAX-Online-Generator

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

Tender specifications

<http://ausschreibungstexte.siemens.com/tiplv>

last modified:

02.02.2016