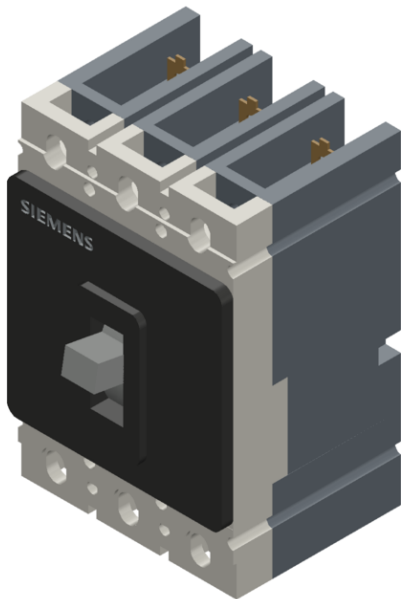


circuit breaker VL150X UL, type CG (cat no. NCX3B040) non-interchangeable frame, with circuit breaker approval acc. to UL 489 standard breaking capacity 3-pole, NEMA rating 35kA/480V (molded case circuit breaker) Electronic Trip Unit TM, LI function TA=40°C In=<40A rated current I<sub>l</sub>=600A short-circuit protection IR=40A Electronic Trip Unit 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	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
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 $U_e$ / 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 / 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

### Protection class

Protection class IP	IP20
Protective function of the overcurrent release	LI

### Current

Operating current / at 45 °C / rated value	37.2 A
Continuous current / rated value	40 A
Derating temperature / for the rated value of the continuous current	50 °C
• acc. to UL 489	40 °C
Adjustable pick-up value current	
• of the current-dependent overload release / Full-scale value	40 A
• of instantaneous short-circuit trip unit / initial value	600 A
• of instantaneous short-circuit trip unit / Full-scale value	600 A

### Main circuit

Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz

Operating current	
<ul style="list-style-type: none"> <li>• at 40 °C / rated value</li> </ul>	40 A
<ul style="list-style-type: none"> <li>• at 50 °C / rated value</li> </ul>	37.2 A
<ul style="list-style-type: none"> <li>• at 55 °C / rated value</li> </ul>	34.4 A
<ul style="list-style-type: none"> <li>• at 60 °C / rated value</li> </ul>	34.4 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	
<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>	65 kA
<ul style="list-style-type: none"> <li>• at 415 V / rated value</li> </ul>	40 kA
<ul style="list-style-type: none"> <li>• at 690 V / rated value</li> </ul>	4 kA
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> <li>• at 240 V / rated value</li> </ul>	65 kA
<ul style="list-style-type: none"> <li>• at 415 V / rated value</li> </ul>	40 kA
<ul style="list-style-type: none"> <li>• at 480 V / acc. to NEMA / rated value</li> </ul>	35 kA
<ul style="list-style-type: none"> <li>• at 600 V / acc. to NEMA / rated value</li> </ul>	8 kA

- at 690 V / rated value

8 kA

### Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of electrical connection / for main current circuit	without connection accessoires

### Mechanical Design

Height	157.5 mm
Width	104.5 mm
Depth	106.5 mm
Mounting type	fixed mounting
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul>	0 ... 70 °C -40 ... +80 °C

### Certificates

Certificate of suitability	UL standard switching capacity (N), non-interchangeable
Reference code	Q
<ul style="list-style-type: none"> <li>• acc. to DIN EN 61346-2</li> </ul>	

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



<b>Test Certificates</b>	<b>Shipping Approval</b>	<b>other</b>
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[Special Test Certificate](#)



[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=3VL1104-1KM30-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL1104-1KM30-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL1104-1KM30-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1104-1KM30-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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

