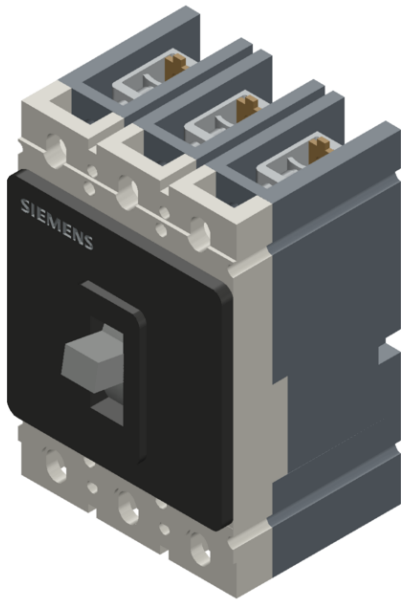


CIRCUIT-BREAKER VL160X N STANDARD BREAKING CAPACITY  
ICU=55KA / 415 V AC 3 POLE, LINE PROTECTION  
OVERCURRENT RELEASE TM, LI IN=80A, RATED CURRENT  
IR=63-80A, OVERLOAD II=1000A, SHORT-CIRCUIT



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
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	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

Protection class	
Protection class IP	IP20
Protective function of the overcurrent release	LI

Dissipation	
Power loss [W]	
• maximum	24 W

Electricity	
Operating current / at 45 °C / rated value	80 A
Continuous current / rated value	80 A
Derating temperature / for the rated value of the continuous current	50 °C
Adjustable pick-up value current	
• of the current-dependent overload release / Full-scale value	80 A
• of instantaneous short-circuit trip unit / initial value	1 000 A
• of instantaneous short-circuit trip unit / Full-scale value	1 000 A

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

<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>• rated value / maximum</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• for main current circuit / at AC / at 50 Hz / maximum</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• for main current circuit / at AC / at 60 Hz / maximum</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• for main current circuit / at DC / maximum</li> </ul>	500 V
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• at 40 °C / rated value</li> </ul>	80 A
<ul style="list-style-type: none"> <li>• at 50 °C / rated value</li> </ul>	80 A
<ul style="list-style-type: none"> <li>• at 55 °C / rated value</li> </ul>	74.4 A
<ul style="list-style-type: none"> <li>• at 60 °C / rated value</li> </ul>	74.4 A
<ul style="list-style-type: none"> <li>• at 65 °C / rated value</li> </ul>	68.8 A
<ul style="list-style-type: none"> <li>• at 70 °C / rated value</li> </ul>	68.8 A
<b>Suitability</b>	
<b>Suitability for use</b>	system protection
<b>Adjustable parameters</b>	
<b>Adjustable pick-up value current / of the current-dependent overload release / initial value</b>	64 A
<b>Product details</b>	
<b>Product component</b>	
<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
<b>Product function</b>	
<b>Product function</b>	
<ul style="list-style-type: none"> <li>• of thermal overload trip unit</li> </ul>	adjustable
<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
<b>Short circuit</b>	
<b>Operational short-circuit current breaking capacity (Ics)</b>	
<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>	55 kA
<ul style="list-style-type: none"> <li>• at 500 V / rated value</li> </ul>	14 kA
<ul style="list-style-type: none"> <li>• at 690 V / rated value</li> </ul>	4 kA

Maximum short-circuit current breaking capacity (Icu)	
• at 240 V / rated value	65 kA
• at 415 V / rated value	55 kA
• at 440 V / rated value	25 kA
• at 480 V / acc. to NEMA / rated value	25 kA
• at 500 V / rated value	18 kA
• at 600 V / acc. to NEMA / rated value	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	box terminals

### Mechanical Design

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

### Environmental conditions

<b>Ambient temperature</b>	
• during operation / minimum	0 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C

### Certificates

<b>Certificate of suitability</b>	IEC, standard switching capacity (N)
<b>Equipment marking</b>	
• acc. to DIN EN 61346-2	Q

General Product Approval	EMC	Declaration of Conformity
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CCC

[Miscellaneous](#)

[TSE](#)

[KC](#)



C-Tick



EG-Konf.

Test Certificates	Shipping Approval
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[Special Test Certificate](#)



ABS



BUREAU VERITAS

Lloyd's Register

LRS



PRS



RINA

Shipping Approval	other
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RMRS

[Environmental Confirmations](#)

[Miscellaneous](#)

[Confirmation](#)

## 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=3VL1708-1DD33-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL1708-1DD33-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL1708-1DD33-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1708-1DD33-0AA0)

### CAX-Online-Generator

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

### Tender specifications

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