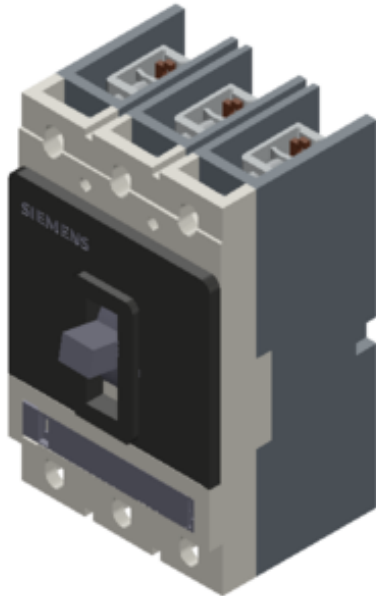


CIRCUIT-BREAKER VL 160N STANDARD BREAKING CAPACITY  
 ICU=55KA / 415 V AC 3 POLE, LINE PROTECTION  
 OVERCURRENT RELEASE TM, LI IN=50A, RATED CURRENT  
 IR=40-50A, OVERLOAD II=300-600A, SHORT CIRCUIT



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	3VL2
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
<b>Protection class</b>	
Protection class IP	IP20
Protective function of the overcurrent release	LI
<b>Dissipation</b>	
Power loss [W]	
• maximum	16 W
<b>Electricity</b>	
Continuous current / rated value	50 A
Derating temperature / for the rated value of the continuous current	50 °C
<b>Adjustable pick-up value current</b>	
• of the current-dependent overload release / Full-scale value	50 A
• of instantaneous short-circuit trip unit / initial value	300 A
• of instantaneous short-circuit trip unit / Full-scale value	600 A
<b>Main circuit</b>	
<b>Operating frequency</b>	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
<b>Operating voltage</b>	
• for main current circuit / at AC / at 50 Hz / maximum	690 V
• for main current circuit / at AC / at 60 Hz / maximum	690 V
• for main current circuit / at DC / maximum	500 V
<b>Operating current</b>	
• at 40 °C / rated value	50 A
• at 50 °C / rated value	50 A
• at 55 °C / rated value	46.5 A
• at 60 °C / rated value	46.5 A
• at 65 °C / rated value	43 A
• at 70 °C / rated value	43 A
<b>Suitability</b>	
Suitability for use	system protection
<b>Adjustable parameters</b>	
Adjustable pick-up value current / of the current-dependent overload release / initial value	40 A

## Product details

<b>Product component</b>	
• Trip indicator	No
• Auxiliary switch	Yes
• Voltage trigger	No
• undervoltage release	Yes
• undervoltage release with leading contact	No
Product extension / optional / motor drive	Yes

## Product function

<b>Product function</b>	
• of thermal overload trip unit	adjustable
• Ground fault protection	No
• for neutral conductors / Short-circuit and overload proof	No
• Overload protection	Yes

## Short circuit

<b>Operational short-circuit current breaking capacity (Ics)</b>	
• at 240 V / rated value	65 kA
• at 415 V / rated value	55 kA
• at 500 V / rated value	20 kA
• at 690 V / rated value	6 kA
<b>Maximum short-circuit current breaking capacity (Icu)</b>	
• 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	25 kA
• at 600 V / acc. to NEMA / rated value	12 kA
• at 690 V / rated value	12 kA

## Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of electrical connection / for main current circuit	box terminals

## Mechanical Design

<b>Height</b>	174.5 mm
<b>Width</b>	104.5 mm
<b>Depth</b>	106.5 mm
<b>Mounting type</b>	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)
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<b>Equipment marking</b>	
• acc. to DIN EN 61346-2	Q

<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>
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CCC

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[TSE](#)

[KTL](#)



C-Tick



EG-Konf.

<b>Test Certificates</b>	<b>Shipping Approval</b>
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[spezielle Prüfbescheinigung](#)  
n



ABS



BUREAU VERITAS



LRS



PRS



RINA

<b>Shipping Approval</b>	<b>other</b>
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RMRS

[Umweltbestätigung](#)

[Bestätigungen](#)

[sonstig](#)

### 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=3VL2705-1DC33-2DB1>

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

<http://support.automation.siemens.com/WW/view/en/3VL2705-1DC33-2DB1/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL2705-1DC33-2DB1](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL2705-1DC33-2DB1)

**CAX-Online-Generator**

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

**Tender specifications**

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