

CIRCUIT-BREAKER VL 160H HIGH BREAKING
CAPACITY ICU=70KA / 415 V AC 4 POLE, LINE
PROTECTION OVERCURRENT RELEASE TM, LI
IN=50A, RATED CURRENT IR=40-50A, OVERLOAD
II=300-600A, SHORT CIRCUIT N NOT PROTECTED

Model		
Type of the driving mechanism / motor drive		No
Design of the overcurrent release		TM
General technical data		
Number of poles		4
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	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	50
Derating temperature / for the rated value of the continuous current	°C	50
Adjustable response value current		
• of the current-dependent overload release / Full-scale value	A	50
• of the instantaneous short-circuit release / initial value	A	300
• of the instantaneous short-circuit release / Full-scale value	A	600

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 / maximum	V	690
• for main current circuit / at AC / at 60 Hz / maximum	V	690
• for main current circuit / at DC / maximum	V	500
Operating current		
• at 40 °C / rated value	A	50
• at 50 °C / rated value	A	50
• at 55 °C / rated value	A	46.5
• at 60 °C / rated value	A	46.5
• at 65 °C / rated value	A	43
• at 70 °C / rated value	A	43
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	40
Product details		
Product component		
• Trip indicator		No
• Auxiliary switch		Yes
• Voltage trigger		No
• undervoltage release		No
• undervoltage release with leading contact		No
Product expansion / optional / motor drive		Yes
Product function		
Product function		
• of the thermal overload release		adjustable
• Ground fault protection		No
• for neutral conductors / Short-circuit and overload proof		No

- Overload protection

Yes

Short circuit

Operational short-circuit current breaking capacity (Ics)

- at 240 V / rated value
- at 415 V / rated value
- at 500 V / rated value
- at 690 V / rated value

kA	75
kA	70
kA	30
kA	6

Maximum short-circuit current breaking capacity (Icu)

- at 240 V / rated value
- at 415 V / rated value
- at 440 V / rated value
- at 480 V / acc. to NEMA / rated value
- at 500 V / rated value
- at 600 V / acc. to NEMA / rated value
- at 690 V / rated value

kA	100
kA	70
kA	50
kA	50
kA	40
kA	12
kA	12

Connections

Arrangement of electrical connectors / for main current circuit

front side

Type of connectable conductor cross-sections

- for main contacts
 - with flexible busbar
 - solid
 - finely stranded / with core end processing
 - stranded
- for auxiliary contacts
 - solid
 - finely stranded / with core end processing

12 x 10 mm
2.5 ... 95 mm ²
2.5 ... 50 mm ²
2.5 ... 95 mm ²
0.75 ... 1.5 mm ²
0,75 ... 1.0 mm ²

Type of electrical connection / for main current circuit

box terminals

Mechanical Design

Height

mm	174.5
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Width

mm	139.5
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Depth

mm	106.5
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Mounting type

fixed mounting

Environmental conditions

Ambient temperature

- during operation / minimum
- during operation / maximum
- during storage / minimum
- during storage / maximum

°C	0
°C	70
°C	-40
°C	80

Certificates

Certificate of suitability

IEC, high switching capacity (H)

Equipment marking

- acc. to DIN EN 61346-2

Q

General Product Approval

EMC



CCC

[sonstig](#)



[TSE](#)

[KTL](#)



C-TICK

Declaration of Conformity

Test Certificates

Shipping Approval



EG-Konf.

[spezielle Prüfbescheinigung](#)
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ABS



BUREAU VERITAS



DNV



GL

Shipping Approval

other



LRS



PRS



RINA



RMRS

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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/3VL27052EJ430AB1>

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

<http://support.automation.siemens.com/WW/view/en/3VL27052EJ430AB1/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL27052EJ430AB1

CAX-Online-Generator

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

Tender specifications

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

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