

CIRCUIT-BREAKER VL160X H HIGH BREAKING
CAPACITY ICU=70KA / 415 V AC 3 POLE, LINE
PROTECTION OVERCURRENT RELEASE TM, LI
IN=20A, RATED CURRENT IR=20A, OVERLOAD
II=300A, SHORT-CIRCUIT WITH SCREW
CONNECTION

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	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	°C	50
Adjustable pick-up value current		
• of the current-dependent overload release / Full-scale value	A	20
• of instantaneous short-circuit trip unit / initial value	A	300

• of instantaneous short-circuit trip unit / 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 / 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	20
• at 50 °C / rated value	A	20
• at 55 °C / rated value	A	18.6
• at 60 °C / rated value	A	18.6
• at 65 °C / rated value	A	17.2
• at 70 °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		2
Suitability		
Suitability for use		system protection
Adjustable parameters		
Adjustable pick-up value current / of the current-dependent overload release / initial value	A	20
Product details		
Product component		
• Trip indicator		Yes
• Auxiliary switch		Yes
• Voltage trigger		No
• undervoltage release		No
• undervoltage release with leading contact		No
Product extension / optional / motor drive		Yes
Product function		
Product function		
• of thermal overload trip unit		fixed
• Ground fault protection		No

- for neutral conductors / Short-circuit and overload proof
- Overload protection

No
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 23
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 42
kA 42
kA 30
kA 12
kA 12

Connections

Arrangement of electrical connectors / for main current circuit

front side

Type of electrical connection / for main current circuit

screw-type terminals

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
- 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	Declaration of Conformity	Test Certificates
sonstig 	TSE  C-Tick	 EG-Konf.	spezielle Prüfbescheinigungen n

Shipping Approval					
 ABS	 BUREAU VERITAS	 LRS	 PRS	 RINA	 RMRS

other		
Umweltbestätigung	Bestätigungen	sonstig

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/3VL1702-2DA36-0AD1>

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

<http://support.automation.siemens.com/WW/view/en/3VL1702-2DA36-0AD1/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1702-2DA36-0AD1

CAX-Online-Generator

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

Tender specifications

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

last modified:

10/17/2016