

CIRCUIT-BREAKER VL 160N STANDARD BREAKING CAPACITY ICU=55KA / 415 V AC 3 POLE, LINE PROTECTION OVERCURRENT RELEASE TM, LI IN=160A, RATED CURRENT IR=125-160A, OVERLOAD II=800-1600A, 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		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	160
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	160
• of the instantaneous short-circuit release / initial value	A	800

- of the instantaneous short-circuit release / Full-scale value

A 1 600

Main circuit

Operating frequency

- 1 / Rated value
- 2 / Rated value

Hz 50
Hz 60

Operating voltage

- for main current circuit / at AC / at 50 Hz / maximum
- for main current circuit / at AC / at 60 Hz / maximum
- for main current circuit / at DC / maximum

V 690
V 690
V 500

Operating current

- at 40 °C / Rated value
- at 50 °C / Rated value
- at 55 °C / Rated value
- at 60 °C / Rated value
- at 65 °C / Rated value
- at 70 °C / Rated value

A 160
A 160
A 148.8
A 148.8
A 137.6
A 137.6

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 response value current / of the current-dependent overload release / initial value

A 128

Product details

Product component

- Trip indicator
- Auxiliary switch
- Voltage trigger
- undervoltage release
- undervoltage release with leading contact

Yes
Yes
No
No
No

Product expansion / optional / motor drive

Yes

Product function

Product function

- of the thermal overload release
- Ground fault protection

adjustable
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	65
kA	55
kA	20
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	65
kA	55
kA	25
kA	25
kA	25
kA	12
kA	12

Connections

Arrangement of electrical connectors / for main current circuit

front side

Type of connectable conductor cross-section

- 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

screw-type terminals

Mechanical Design

Height

mm 174.5

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

°C	0
°C	70
°C	-40

• during storage / maximum

°C 80

Certificates

Certificate of suitability	IEC, standard switching capacity (N)
Equipment marking <ul style="list-style-type: none">• acc. to DIN EN 61346-2	Q

General Product Approval	EMC	Declaration of Conformity
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CCC

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C-TICK



EG-Konf.

Test Certificates	Shipping Approval
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ABS



BUREAU VERITAS



DNV



GL



LRS

Shipping Approval	other
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PRS



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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/3VL27161DC360AD1>

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

<http://support.automation.siemens.com/WW/view/en/3VL27161DC360AD1/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL27161DC360AD1

CAX-Online-Generator

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

Tender specifications

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

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