



Figure similar

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS N ICU=25KA @ 415 V 4-POLE, LINE PROTECTION TM220, ATFM, IN=160A OVERLOAD PROTECTION IR=112A ...160A SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL PROTECTION 100% BUSBAR CONNECTION

Model		
product brand name		SENTRON
Product designation		Molded case circuit breaker
Design of the product		Line protection
Product variations		General Applications
Ground fault monitoring version		Without
Design of the auxiliary release		Without auxiliary release
Design of the auxiliary switch		Without
Design of the operating mechanism		toggle handle
Type of the driving mechanism / motor drive		No
Design of the overcurrent release		TM220
General technical data		
Number of poles		4
Trip class / of the L-trip / with I²t characteristic / initial value		1
Trip class / of the L-trip / with I²t characteristic / Full-scale value		1
Electrical endurance (switching cycles)		8 000
• at AC-1 / at 380/415 V / at 50/60 Hz		
circuit-breaker / Design		3VA
Mechanical service life (switching cycles) / typical		15 000
Voltage		
Insulation voltage / Rated value	V	800
Protection class		

Protection class IP		IP40
Protection class IP / on the front		IP40
Protective function of the overcurrent release		LI

Switching capacity

Switching capacity class of the circuit breaker		N
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Dissipation

Active power loss		
<ul style="list-style-type: none"> • maximum 	W	38

Electricity

Continuous current / Rated value / maximum	A	160
Continuous current / Rated value	A	160
Adjustable response value current		
<ul style="list-style-type: none"> • of the current-dependent overload release / Full-scale value 	A	1
<ul style="list-style-type: none"> • of the instantaneous short-circuit release / initial value 	A	10

Main circuit

Operating voltage		
<ul style="list-style-type: none"> • with AC / at 50/60 Hz / Rated value 	V	690
<ul style="list-style-type: none"> • for DC / Rated value 	V	600
Operating current		
<ul style="list-style-type: none"> • at 40 °C / Rated value 	A	160
<ul style="list-style-type: none"> • at 50 °C / Rated value 	A	160
<ul style="list-style-type: none"> • at 55 °C / Rated value 	A	158
<ul style="list-style-type: none"> • at 60 °C / Rated value 	A	155
<ul style="list-style-type: none"> • at 65 °C / Rated value 	A	153
<ul style="list-style-type: none"> • at 70 °C / Rated value 	A	150

Auxiliary circuit

Number of CO contacts / for auxiliary contacts		0
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Suitability

Suitability for use		system protection
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Adjustable parameters

Adjustable response value current		
<ul style="list-style-type: none"> • of I-trip / Full-scale value 	A	10
<ul style="list-style-type: none"> • for N-conductor protection / initial value 	A	100
<ul style="list-style-type: none"> • for N-conductor protection / Full-scale value 	A	100
Adjustable response value current / of the current-dependent overload release / initial value	A	0.7

Product details

Product component		
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• Trip indicator		No
• display		No
• Voltage trigger		No
• undervoltage release		No
• undervoltage release with leading contact		No
Product property		
• for neutral conductors / upgradeable/retrofitable / Short-circuit and overload proof		No
Product expansion / optional / motor drive		Yes

Product function

Product function		
• Intrinsic device protection		Yes
• communication function		No
• Phase failure detection		No
• other measurement function		No

Accessories

Manufacturer article number / of the supplied basic switch		3VA1116-3GE42-0AA0
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Short circuit

Operational short-circuit current breaking capacity (Ics)		
• at 240 V / Rated value	kA	36
• at 415 V / Rated value	kA	25
• at 440 V / Rated value	kA	16
• at 500 V / Rated value	kA	8
• at 690 V / Rated value	kA	5
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	36
• at 415 V / Rated value	kA	25
• at 440 V / Rated value	kA	16
• at 500 V / Rated value	kA	8
• at 690 V / Rated value	kA	7
Short-circuit current making capacity (Icm)		
• at 240 V / Rated value	kA	75.6
• at 415 V / Rated value	kA	52.5
• at 690 V / Rated value	kA	7.5

Connections

Arrangement of electrical connectors / for main current circuit		Front terminal
Type of connectable conductor cross-section		

• for flat-bar terminal connection / minimum		12 x 0
• for flat-bar terminal connection / maximum		17 x 6.5
Type of electrical connection / for main current circuit		Lug terminal

Mechanical Design

Height	mm	130
Width	mm	101.6
Depth	mm	70
Mounting type		fixed mounting

Environmental conditions

Ambient temperature		
• during operation / minimum	°C	-25
• during operation / maximum	°C	70
• during storage / minimum	°C	-40
• during storage / maximum	°C	80

Certificates

Equipment marking		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q

General Product Approval	EMC	Declaration of Conformity	Shipping Approval
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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/3VA11163GE420AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA11163GE420AA0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11163GE420AA0

CAX-Online-Generator

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

Tender specifications

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

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