



CIRCUIT BREAKER 3VA1 IEC FRAME 100 BREAKING CAPACITY CLASS B ICU=16KA @ 415 V 3-POLE, LINE PROTECTION TM210, FTFM, IN=20A OVERLOAD PROTECTION IR=20A FIXED SHORT CIRCUIT PROTECTION II=16 X IN BUSBAR CONNECTION SHUNT TRIP (STL) 12-30 V DC, 24 V AC 50/60 HZ 2 AUXILIARY SWITCH HQ 1 TRIP ALARM SWITCH HQ

Model	
product brandname	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Line protection
Design of the overcurrent release	TM210
Protective function of the overcurrent release	LI
Number of poles	3
Design of the auxiliary release	Shunt trip (STL)
Design of the auxiliary switch	2 auxiliary switches + 1 trip alarm switch HQ
General technical data	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
Max. rated operational voltage Ue with DC	500 V
Operating power / at AC-3 / at 400 V	0 W
Operating power / at AC-3 / at 230 V	0 W
Active power loss / for rated value of the current / at AC / in hot operating state / per device	12 W
Mechanical service life (switching cycles) / typical	15 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	
• communication function	No
• Phase failure detection	No
• other measurement function	No
Net weight	1.08 kg

Electricity

Max. rated operational voltage of the size of the circuit-breaker	100 A
Courant permanent assigné Iu	20 A
Operating current	
• at 40 °C	20 A
• at 45 °C	20 A
• at 50 °C	20 A
• at 55 °C	19.2 A
• at 60 °C	18.8 A
• at 65 °C	18.4 A
• at 70 °C	18 A

Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	B
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V	25 kA
• at 415 V	16 kA
• at 440 V	8 kA
• at 690 V	5 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	25 kA
• at 415 V	16 kA
• at 440 V	8 kA
• at 690 V	5 kA
Short-circuit current making capacity (Icm)	
• at 240 V	52.5 kA
• at 415 V	32 kA
• at 440 V	13.6 kA
• at 690 V	7.5 kA

Adjustable parameters

Adjustable response value current / I _g min.	0 A
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Adjustable response value current / lg min.	0 A
Adjustable response value current / lg min.	0 A
Adjustable response value current / lg min.	0 A
Adjustable response value current / li min.	0 A
Adjustable response value current / li max.	0 A

Mechanical Design

Height	130 mm
Width	76.2 mm
Depth	70 mm

Connections

Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	lug terminal
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 0
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5

Auxiliary circuit

Product component	
• undervoltage release	No
• Voltage trigger	Yes
• undervoltage release with leading contact	No
• Trip indicator	Yes
Number of CO contacts / for auxiliary contacts	3

Accessories

Product extension / optional / motor drive	No
Manufacturer's article number	
• of the supplied basic switch	3VA1020-2ED32-0AA0
• of the integrated auxiliary switch/alarm switch	3VA9988-0AA12
• of the integrated auxiliary switch/alarm switch	3VA9988-0AB12
• of the integrated auxiliary trip	3VA9688-0BL30

Environmental conditions

Protection class IP / on the front	IP40
Ambient temperature	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C

Certificates

Equipment marking / acc. to DIN EN 81346-2	Q
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General Product Approval			EMC	Declaration of Conformity	
 CCC	 VDE	 EAC	sonstig	 RCM	 EG-Konf.

Test Certificates	Shipping Approval				
Typprüfbescheinigung/Werkszeugnis	sonstig	 ABS	 BUREAU VERITAS	 GL	 LRS

Shipping Approval	other				
 RMRS	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/3VA1020-2ED32-0HH0>

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

<http://support.automation.siemens.com/WW/view/en/3VA1020-2ED32-0HH0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1020-2ED32-0HH0

CAX-Online-Generator

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

Tender specifications

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

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