



circuit breaker 3VA1 IEC frame 100 breaking capacity class N $I_{cu}=25kA$ @ 415V 3-pole, line protection TM210, FTFM, $I_n=20A$ overload protection $I_r=20A$ fixed short-circuit protection $I_i=16 \times I_n$ nut keeper kit undervoltage release (UVR) 24V DC 2 auxiliary switches HQ

Model	
product brand name	SETRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	3
Auxiliary contact version	2 auxiliary switches HQ
General technical data	
rated insulation voltage U_i	800 V
Max. rated operational voltage U_e with DC	500 V
power loss [W] / maximum	14.5 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4.83 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	9 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	6 300
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	1,05 kg
Current	
Max. rated operational current of the frame size	100 A
Courant permanent assigné I_u	20 A
operational current	
• at 40 °C	20 A
• at 45 °C	20 A
• at 50 °C	20 A
• at 55 °C	20 A
• at 60 °C	19 A
• at 65 °C	19 A
• at 70 °C	19 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	N
breaking capacity maximum short-circuit current (I_{cu})	
• at 240 V	36 kA

• at 415 V • at 440 V • at 500 V • at 690 V	25 kA 16 kA 5 kA 5 kA
breaking capacity operating short-circuit current (Ics) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	36 kA 25 kA 16 kA 5 kA 5 kA
short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	75.6 kA 52.5 kA 32 kA 7.5 kA 7.5 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter

Adjustable parameters

Ground fault protection / tripping switchable / I2t=ON/OFF	No
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Mechanical Design

height [in]	5.12 in
Height	130 mm
width [in]	3 in
Width	76.2 mm
depth [in]	2.76 in
depth	70 mm

Connections

arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	nut keeper kit on both ends
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5 mm
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	Silver
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Tin

Auxiliary circuit

product component	
• undervoltage release • voltage trigger • undervoltage release with leading contact • trip indicator	Yes No No No
number of CO contacts / for auxiliary contacts	2

Accessories

product extension / optional / motor drive	No
manufacturer's article number	
• of the supplied basic switch • of the integrated auxiliary switch/alarm switch • of the integrated auxiliary trip unit	3VA10203ED320AA0 3VA9988-0AA12 3VA9608-0BB11

Environmental conditions

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

Certificates

General Product Approval

EMC

Declaration of
Conformity
[Miscellaneous](#)
Declaration of
Conformity

Test Certificates

Marine / Shipping

[UK Declaration of
Conformity](#)
[Miscellaneous](#)
[Type Test Certifi-
cates/Test Report](#)
[Special Test Certifi-
cate](#)


Marine / Shipping

other


[CCS / China Classi-
fication Society](#)
[Miscellaneous](#)
[Miscellaneous](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1020-3ED32-0BC0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1020-3ED32-0BC0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1020-3ED32-0BC0

CAx-Online-Generator

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

Tender specifications

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



