



circuit breaker 3VA1 IEC frame 250 breaking capacity class S $I_{cu}=36\text{kA}$ @ 415V 3-pole, line protection TM240, ATAM, $I_n=200\text{A}$ overload protection $I_r=140\text{A}\dots200\text{A}$ short-circuit protection $I_i=5\dots10 \times I_n$ nut keeper kit shunt trip (STL) 110-127V DC, AC 50/60Hz 2 auxiliary switches HQ 1 trip alarm switch HQ

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM240
protection function of the overcurrent release	LI
number of poles	3
Auxiliary contact version	2 auxiliary switches + 1 trip alarm switch 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	42 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	14 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	5 400
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	1,7 kg
Current	
Max. rated operational current of the frame size	250 A
Courant permanent assigné I_u	200 A
operational current	
• at 40 °C	200 A
• at 45 °C	200 A
• at 50 °C	200 A
• at 55 °C	194 A
• at 60 °C	188 A
• at 65 °C	182 A
• at 70 °C	176 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	S
breaking capacity maximum short-circuit current (I_{cu})	
• at 240 V	55 kA

• at 415 V • at 440 V • at 500 V • at 690 V	36 kA 25 kA 10 kA 7 kA
breaking capacity operating short-circuit current (Ics) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	55 kA 36 kA 25 kA 10 kA 5 kA
short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	121 kA 75.6 kA 52.5 kA 17 kA 11.9 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

Adjustable response value current / I _g min.	1
Adjustable response value current / I _g min.	1
Adjustable response value current / I _i min.	1 000 A
Adjustable response value current / I _i max.	2 000 A
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No

Mechanical Design

height [in]	6.22 in
Height	158 mm
width [in]	4.13 in
Width	105 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.	13 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	25 x 8 mm
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Silver

Auxiliary circuit

product component • undervoltage release • voltage trigger • undervoltage release with leading contact • trip indicator	No Yes No Yes
number of CO contacts / for auxiliary contacts	3

Accessories

product extension / optional / motor drive	Yes
manufacturer's article number • of the supplied basic switch • of the integrated auxiliary switch/alarm switch • of the integrated auxiliary switch/alarm switch • of the integrated auxiliary trip unit	3VA12204EF320AA0 3VA9988-0AA12 3VA9988-0AB12 3VA9688-0BL32

Environmental conditions

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

- during storage / minimum -40 °C
- during storage / maximum 80 °C

Certificates

reference code / acc. to IEC 81346-2

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General Product Approval

EMC

Declaration of Conformity



[Miscellaneous](#)



Declaration of Conformity

Test Certificates

Marine / Shipping

[UK Declaration of Conformity](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)



Marine / Shipping

other



[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=3VA1220-4EF32-0JH0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1220-4EF32-0JH0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1220-4EF32-0JH0

CAX-Online-Generator

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

Tender specifications

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



