



circuit breaker 3VA1 IEC frame 160 breaking capacity class S $I_{cu}=36\text{kA}$ @ 415V 3-pole, line protection TM210, FTFM, $I_n=80\text{A}$ overload protection $I_r=80\text{A}$ fixed short-circuit protection $I_i=10 \times I_n$ nut keeper kit shunt trip (STL) 220-250V DC, 208-277V AC 1 auxiliary switch 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	TM210
protection function of the overcurrent release	LI
number of poles	3
Auxiliary contact version	1 auxiliary switch + 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	19.2 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	6.4 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	0,916 kg
Current	
Max. rated operational current of the frame size	100 A
Courant permanent assigné I_u	50 A
operational current	
• at 40 °C	80 A
• at 45 °C	80 A
• at 50 °C	80 A
• at 55 °C	78 A
• at 60 °C	77 A
• at 65 °C	75 A
• at 70 °C	74 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 7 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 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	121 kA 75.6 kA 52.5 kA 11.9 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 / li min.	500 A
Adjustable response value current / li max.	500 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

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 bottom of the switch (N, 2, 4, 6)	Tin

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	2

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	3VA11804ED320AA0 3VA9988-0AA12 3VA9988-0AB12 3VA9688-0BL33

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

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](#)

[Special Test Certificate](#)

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping

other



[CCS / China Classification 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=3VA1180-4ED32-0KF0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-4ED32-0KF0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-4ED32-0KF0

CAX-Online-Generator

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

Tender specifications

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



