SIEMENS

Data sheet

3VA1180-3GD42-0AA0



circuit breaker 3VA1 IEC frame 160 breaking capacity class N lcu=25kA @ 415V 4-pole, line protection TM210, FTFM, In=80A overload protection Ir=80A fixed short-circuit protection li=10 x In N conductor protection 100% nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	600 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	19.2 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	6.4 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	9 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	6 300
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
 communication function 	No
 other measurement function 	No
Net Weight	1.42 kg
Current	
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	Ν
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	7 kA
• at 690 V	7 kA

operating short-circuit current breaking capacity (lcs)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	75.6 kA
• at 415 V	52.5 kA
• at 440 V	32 kA
• at 500 V	11.9 kA
• at 690 V	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

breaker device manual; link to be found under Service & Support in the last chapter

	chapter
Adjustable parameters	
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
• minimum	80 A
• maximum	80 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (li) / for I-tripping	
• minimum	800 A
• maximum	800 A
adjustable setting current (InN) / for N-tripping	
• minimum	80 A
• maximum	80 A
design of the N-conductor protection	100%
product function / grounding protection	No
Mechanical Design	
product component	
 undervoltage release 	No
voltage trigger	No
trip indicator	No
height [in]	5.12 in
height	130 mm
width [in]	4 in
width	101.6 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-sections / for flat-bar terminal connection / minimum	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	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	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	Yes
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
during operation / minimum	-25 °C

 during storage / ma ertificates 	ximum				
ertiticates		80 °	°C		
reference code / according	to IEC 91246 2	Q			_
General Product Approv		Q			EMC
CCC	<u>Confirmation</u>	UDE VDE	Miscellaneous	EAC	RCM
Declaration of Conformi	ty	Test Certificates			Marine / Shipping
UK CA	CE EG-Konf.	Special Test Certific- ate	<u>Miscellaneous</u>	Type Test Certific- ates/Test Report	ABS
Marine / Shipping				other	
BUREAU VERITAS		RMPS	<u>CCS / China Classific-</u> ation Society	<u>Confirmation</u>	Miscellaneous
other	Environment				
<u>Miscellaneous</u>	Environmental Con- firmations				
rther information					

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3VA1180-3GD42-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-3GD42-0AA0

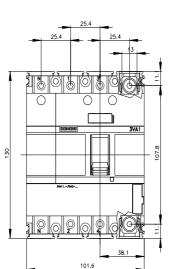
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

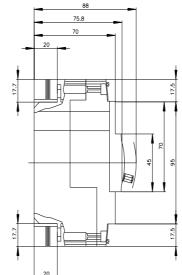
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-3GD42-0AA0

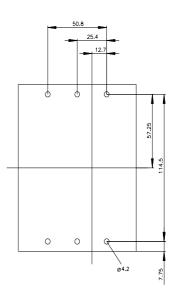
CAx-Online-Generator http://www.siemens.com/cax

Tender specifications

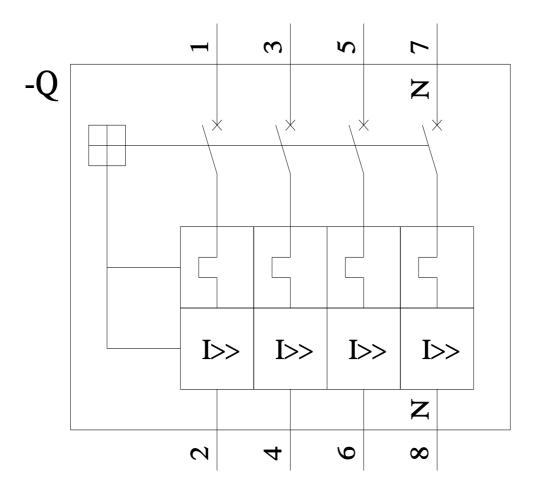
http://www.siemens.com/specifications







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