3VA1180-4EE46-0AA0

Data sheet



circuit breaker 3VA1 IEC frame 160 breaking capacity class S Icu=36kA @ 415V 4-pole, line protection TM220, ATFM, In=80A overload protection Ir=56A...80A short-circuit protection Ii=10 x In N conductor unprotected clamp connection

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	TM220
protection function of the overcurrent release	Ц
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	1.293 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	S
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
• at 500 V	7 kA
● at 690 V	7 kA

operating short-circuit current breaking capacity (lcs)	
• at 240 V	55 kA
● at 415 V	36 kA
● at 440 V	25 kA
● at 500 V	5 kA
● at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	121 kA
● at 415 V	75.6 kA
● at 440 V	52.5 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 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 12t characteristic	
• minimum	56 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 l-tripping	
• minimum	800 A
• maximum	800 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
• maximum	0 A
design of the N-conductor protection	without
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
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (1,5 - 70 mm²)
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	box terminal on both sides
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 operation / maximum during operation / maximum	70 °C
- uuring operation / IllaAllIlulli	10 0

• during storage / minimum

-40 °C 80 °C

during storage / maximum

Certificates

reference code / according to IEC 81346-2

Q

General Product Approval

Confirmation





<u>Miscellaneous</u>

<u>KC</u>



EMC

Declaration of Conformity

Test Certificates







Type Test Certificates/Test Report

Miscellaneous

Special Test Certificate

Marine / Shipping







CCS / China Classification Society

Confirmation

other

other

Environment

Miscellaneous

Miscellaneous

Environmental Confirmations

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

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=3VA1180-4EE46-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-4EE46-0AA0

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

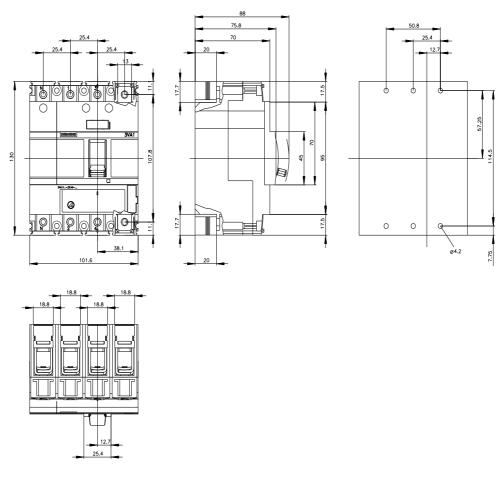
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-4EE46-0AA0

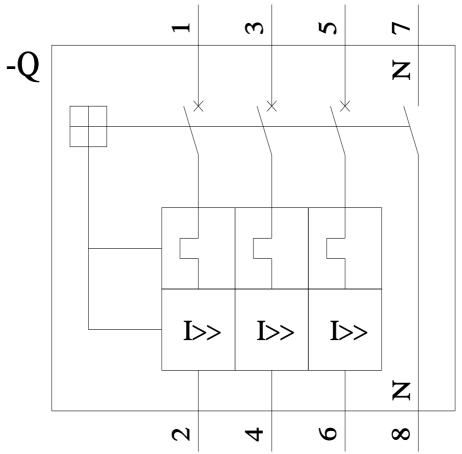
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications





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