SIEMENS

Data sheet 3VA1180-6GE46-0AA0

circuit breaker 3VA1 IEC frame 160 breaking capacity class H Icu=70kA @ 415V 4-pole, line protection TM220, ATFM, In=80A overload protection Ir=56A...80A short-circuit protection Ii=10 x In N conductor protection 100% clamp connection

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM220
protection function of the overcurrent release	LI
number of poles	4
General technical data	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with DC	600 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	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofittable	No
ground-fault monitoring version	Without
product function	
● communication function	No
● other measurement function	No
net weight	1.2 kg
Current	
Max. rated operational current of the frame size	160 A
Courant permanent assigné Iu	80 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	H
breaking capacity maximum short-circuit current (Icu)	

• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	55 kA
• at 500 V	10 kA
• at 690 V	10 kA
breaking capacity operating short-circuit current (Ics)	
• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	40 kA
• at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	220 kA
• at 415 V	154 kA
• at 440 V	121 kA
• at 500 V	17 kA
• at 690 V	17 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 / Ii min.	800 A
Adjustable response value current / Ii max.	800 A
design of the N-conductor protection	100%
Ground fault protection / tripping switchable / I2t=ON/OFF	No
Mechanical Design	
height [in]	5.1 in
Height	130 mm
width [in]	4 in
Width	101.6 mm
depth [in]	2.8 in
depth	70 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
Type of connectable conductor cross-section, round conductor terminal, stranded	1 x (1.5 - 70 mm²)
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	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C
Certificates	
reference code / acc. to IEC 81346-2	Q

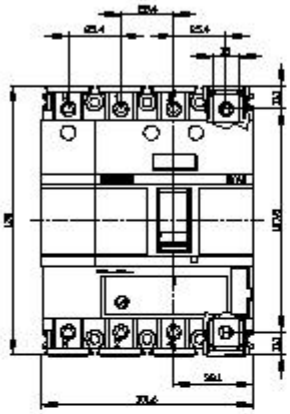
General Product Approval			EMC	Declaration of Conformity
CCC	VDE	Miscellaneous	RCM	EG-Konf.

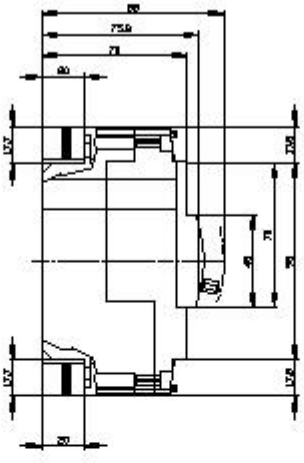
Test Certificates			Shipping Approval		
Type Test Certificates/Test Report	Miscellaneous	Special Test Certificate	ABS	BUREAU VERITAS	LRS

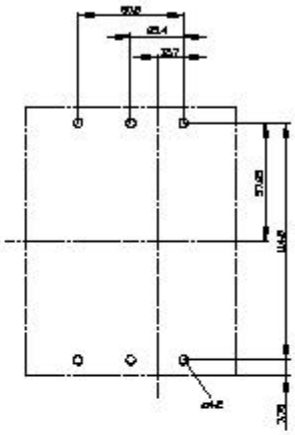
Shipping Approval		other	
RMRS	CCS / China Classification Society	Manufacturer Declaration	Miscellaneous

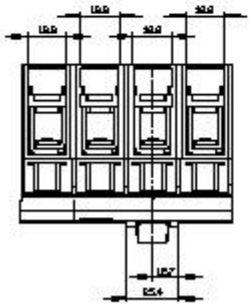
Further information

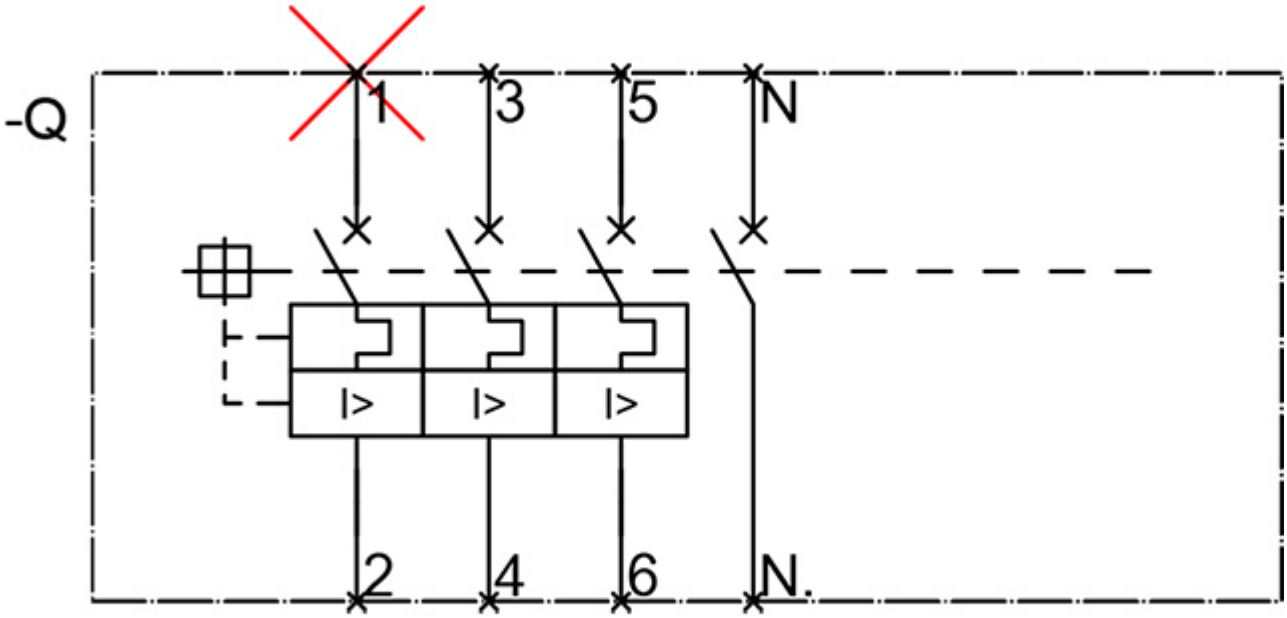
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1180-6GE46-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-6GE46-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-6GE46-0AA0
CAx-Online-Generator
http://www.siemens.com/cax
Tender specifications
http://www.siemens.com/specifications











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