SIEMENS

Data sheet 3VM1220-4GE42-0AA0



circuit breaker 3VM1 IEC frame 250 breaking capacity class S Icu=36kA @ 415V 4-pole, line protection TM220, ATFM, In=200A overload protection Ir=140A...200A short-circuit protection Ii=10 x In N conductor protection 100% nut keeper kit (for products not manufactured in China, only CE and EEQCO Scheme-X certifications are available)

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	LI
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / at 50/60 Hz / rated value	500 V
operating voltage / at DC / rated value	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	42 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	14 W
mechanical service life (operating cycles) / typical	15 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	6 000
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	2.106 kg
Current	
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
maximum short-circuit current breaking capacity (Icu)	
● at 240 V	55 kA
● at 415 V	36 kA
● at 440 V	25 kA

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● at 500 V	10 kA
operating short-circuit current breaking capacity (Ics)	
● at 240 V	41 kA
● at 415 V	27 kA
● at 440 V	18 kA
● at 500 V	7 kA
short-circuit current making capacity (Icm)	
● at 240 V	121 kA
● at 415 V	76 kA
● at 440 V	53 kA
● at 500 V	17 kA
design of short-circuit protection	For switching capacity values in DC power systems, see the 3VA Molded Case Circuit Breaker Manual; link available 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 I2t characteristic	
● minimum	140 A
● maximum	200 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
● minimum	1 s
● maximum	1 s
adjustable response value setting current (Ii) / for I-tripping	
● minimum	2 000 A
● maximum	2 000 A
adjustable setting current (InN) / for N-tripping	
● minimum	200 A
● maximum	200 A
adjustable current response value current / of instantaneous short-circuit trip unit	
● maximum	2 000 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]	6.22 in
height	158 mm
width [in]	5.51 in
width	140 mm
depth [in]	2.76 in
depth	70 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
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	13 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	25 x 8 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)	Silver
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	No

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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

Approvals / Certificates

General Product Approval







Miscellaneous



Confirmation

General Product Approval





Maritime application









Maritime application



CCS (China Classification Society)

other

Confirmation



Environment

Environmental Confirmations

Environmental Confirmations

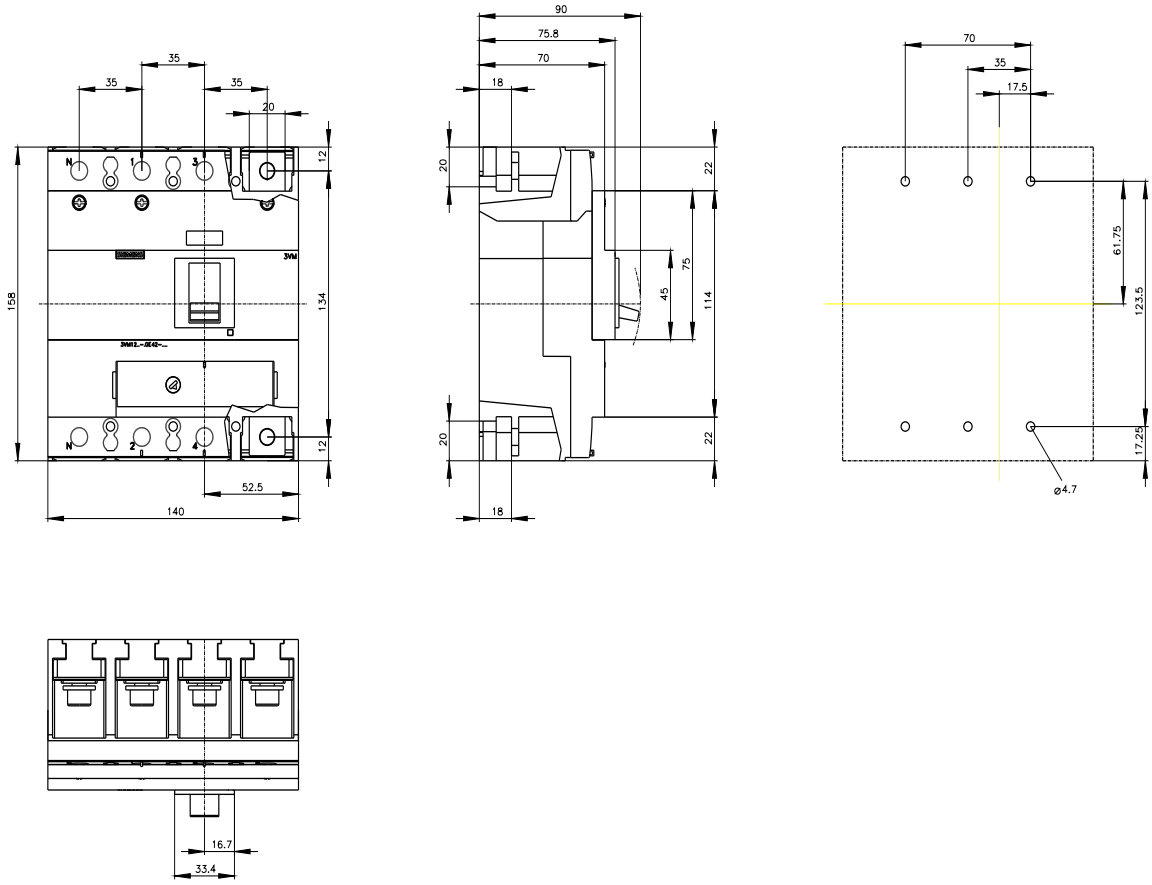
Environment

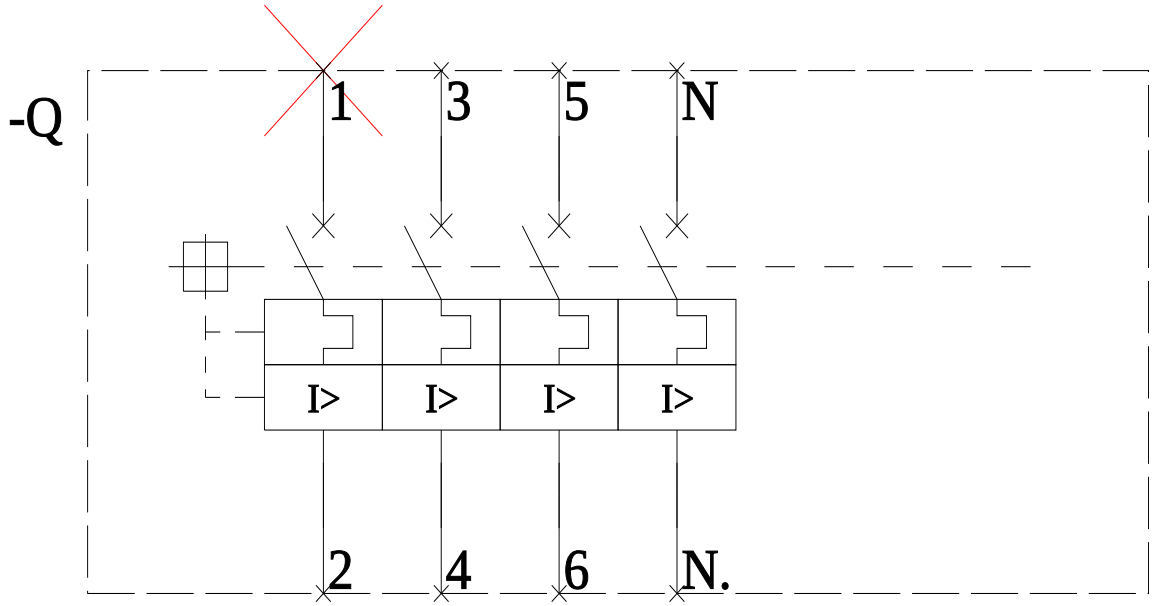


Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1220-4GE42-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VM1220-4GE42-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VM1220-4GE42-0AA0
CAx-Online-Generator
https://www.siemens.com/cax
Tender specifications
https://www.siemens.com/specifications
Kennlinien
https://curves.simaris.siemens.com/curves/3VM1220-4GE42-0AA0

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