Data sheet



circuit breaker 3VA1 IEC Frame 250 breaking capacity class M Icu=55 kA @ 415 V 3-pole, starter protection TM120M, AM, In=200 A without overload protection short-circuit protection Ii=6...14 x In nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Starter protection
design of the overcurrent release	TM120M
protection function of the overcurrent release	I .
number of poles	3
General technical data	
insulation voltage / rated value	800 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	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	5 400
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	1.583 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	M
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	36 kA
• at 500 V	15 kA
• at 690 V	3 kA
operating short-circuit current breaking capacity (Ics)	

● at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	36 kA
● at 500 V	10 kA
● at 690 V	3 kA
short-circuit current making capacity (Icm)	
• at 240 V	187 kA
● at 415 V	121 kA
• at 440 V	75.6 kA
● at 500 V	30 kA
• at 690 V	4.5 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 setting current (li) / for I-tripping	
• minimum	1 200 A
maximum	2 800 A
adjustable setting current (InN) / for N-tripping	
• minimum	200 A
• maximum	200 A
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]	4.13 in
width	105 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	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	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
Environmental footprint	
Global Warming Potential [CO2 eq] / total	285.47 kg
Global Warming Potential [CO2 eq] / during manufacturing	6.87 kg
Global Warming Potential [CO2 eq] / during manufacturing	279 kg
Global Warming Potential [CO2 eq] / after end of life	-0.78 kg
reference code / according to IEC 81346-2	Q
Approvals / Certificates	

General Product Approval







Confirmation



Miscellaneous

General Product Approval

EMV

Test Certificates

KC





Special Test Certificate

Type Test Certificates/Test Report

Miscellaneous

Marine / Shipping

other

Environment





Confirmation

Miscellaneous

Miscellaneous



Environment

Environmental Confirmations

Environmental Confirmations

Further information

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=3VA1220-5MH32-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1220-5MH32-0AA0

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

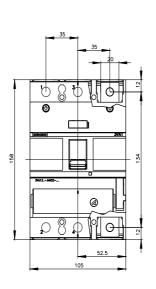
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1220-5MH32-0AA0

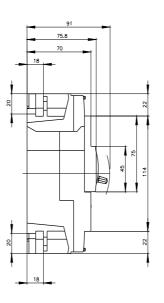
CAx-Online-Generator

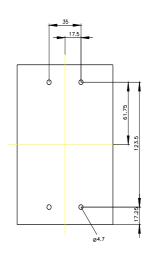
http://www.siemens.com/cax

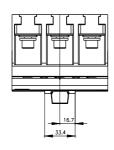
Tender specifications

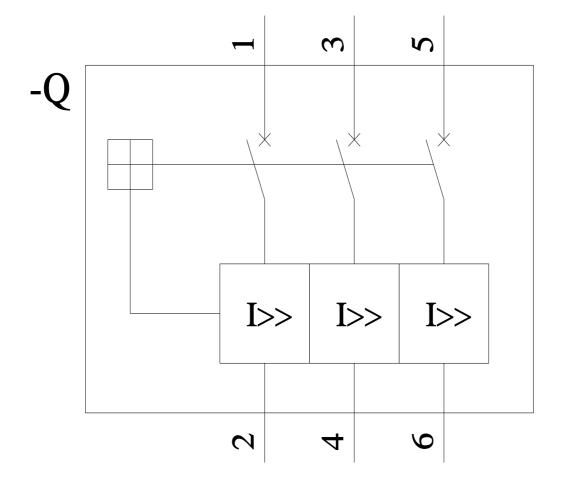
http://www.siemens.com/specifications











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