SIEMENS

Data sheet



circuit breaker 3VA1 IEC Frame 250 breaking capacity class S Icu=36 kA @ 415 V 4-pole, line protection TM220, ATFM, In=250 A overload protection Ir=175 A...250 A short-circuit protection Ii=10 x In neutral 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	TM220
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	57 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	19 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	2.087 kg
Current	
operational current	
• at 40 °C	250 A
• at 45 °C	250 A
• at 50 °C	250 A
• at 55 °C	243 A
• at 60 °C	237 A
• at 65 °C	230 A
• at 70 °C	223 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	10 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	10 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	17 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	175 A
maximum	250 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1s
• maximum	1s
adjustable response value setting current (li) / for I-tripping	
minimum	2 500 A
maximum	2 500 A
adjustable setting current (InN) / for N-tripping	
• minimum	250 A
maximum	250 A
design of the N-conductor protection	100%
product function / grounding protection	No 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
	2.76 in
depth [in] depth	70 mm
Connections	70 111111
	Front terminal
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	nut keeper kit on both ends 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
·	U
Accessories	Voc
product extension / optional / motor drive	Yes
Environmental conditions	10.10
protection class IP / on the front ambient temperature	IP40
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 operation	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 Ap-	
proval		

EMV

Test Certificates

Marine / Shipping





Special Test Certificate

Miscellaneous





Environment other

Confirmation

Miscellaneous

Miscellaneous



Environmental Con-firmations

Environmental Con-firmations

Information on the packaging

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=3VA1225-4GE42-0AA0

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

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

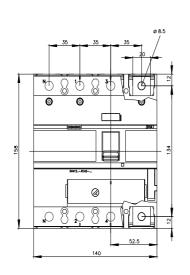
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1225-4GE42-0AA0

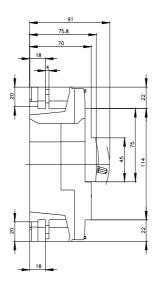
CAx-Online-Generator

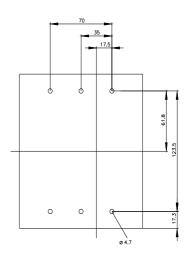
http://www.siemens.com/cax

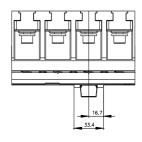
Tender specifications

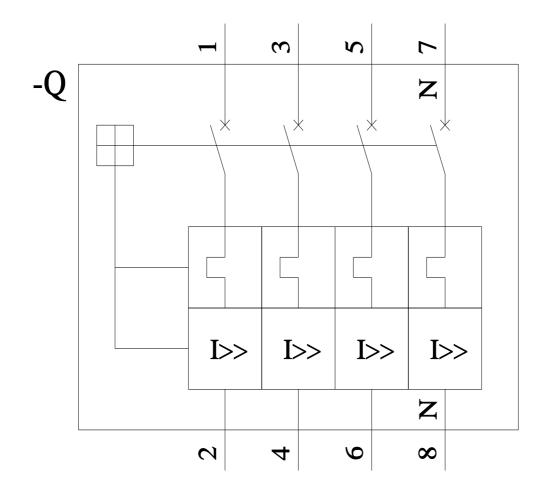
http://www.siemens.com/specifications











last modified: 10/24/2024 🖸

