SIEMENS

Data sheet



circuit breaker 3VM1 IEC frame 160 breaking capacity class S Icu=36kA @ 415V 4-pole, line protection TM220, ATFM, In=100A overload protection Ir=70A...100A short-circuit protection Ii=10 x In N 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	Ц
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	25 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	8.33 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	1.232 kg
Current	
operational current	
• at 40 °C	100 A
● at 45 °C	100 A
● at 50 °C	100 A
• at 55 °C	98 A
• at 60 °C	96 A
• at 65 °C	94 A
• at 70 °C	91 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	S
maximum short-circuit current breaking capacity (lcu)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
• at 500 V	7 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	5 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	12 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	Citaptor
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with l2t characteristic	
• minimum	70 A
• maximum	100 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 I-tripping	
• minimum	1 000 A
• maximum	1 000 A
adjustable setting current (InN) / for N-tripping	
• minimum	100 A
• maximum	100 A
adjustable current response value current / of instantaneous short-circuit trip unit	
• maximum	1 000 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]	5.12 in
height	130 mm
width [in]	4 in
width	101.6 mm
width depth [in]	
	101.6 mm
depth [in]	101.6 mm 2.76 in
depth [in] depth	101.6 mm 2.76 in
depth [in] depth Connections	101.6 mm 2.76 in 70 mm
depth [in] depth Connections arrangement of electrical connectors / for main current circuit	101.6 mm 2.76 in 70 mm Front connection
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver Tin
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver Tin
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver Tin
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver Tin
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver Tin
depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver Tin No
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front	101.6 mm 2.76 in 70 mm Front connection nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver Tin

- during operation / maximum
- during storage / minimum
- during storage / maximum

70 °C -40 °C 80 °C

Approvals / Certificates

General Product Approval

Confirmation









Miscellaneous

General Product Approval

Test Certificates

Marine / Shipping



Miscellaneous









Marine / Shipping

other

Environment



Miscellaneous

Confirmation

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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1110-4GE42-0AA0}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3VM1110-4GE42-0AA0

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

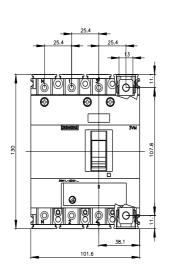
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VM1110-4GE42-0AA0

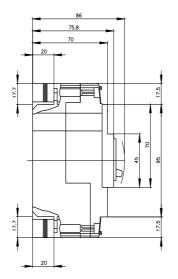
CAx-Online-Generator

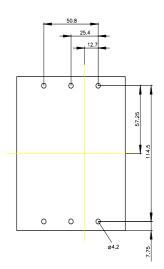
http://www.siemens.com/cax

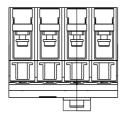
Tender specifications

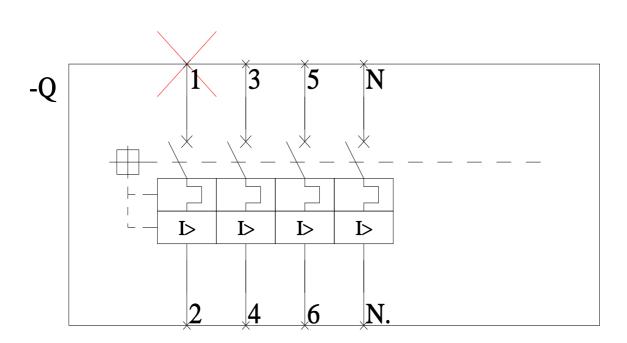
http://www.siemens.com/specifications











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