SIEMENS

Data sheet



circuit breaker 3VM1 IEC frame 100 breaking capacity class N Icu=25kA @ 415V 4-pole, line protection TM210, FTFM, In=25A overload protection Ir=25A, not adjustable short-circuit protection Ii=12.8 x In N conductor unprotected 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	TM210
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	9 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	2.83 W
mechanical service life (operating cycles) / typical	12 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	2 000
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	1.3 kg
Current	
operational current	
• at 40 °C	25 A
● at 45 °C	25 A
● at 50 °C	25 A
● at 55 °C	24 A
• at 60 °C	24 A
• at 65 °C	23 A
• at 70 °C	23 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	N
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	5 kA
operating short-circuit current breaking capacity (lcs)	

• at 240 V	18 kA
• at 415 V	12 kA
● at 440 V	8 kA
● at 500 V	3 kA
short-circuit current making capacity (Icm)	
• at 240 V	76 kA
● at 415 V	53 kA
• at 440 V	32 kA
• at 500 V	8 kA
design of short-circuit protection	For switching capacity values in DC power systems, see the 3VA Molded Case
design of enert enealt protection	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	25 A
• maximum	25 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1s
• maximum	1 s
adjustable response value setting current (li) / for I-tripping	
• minimum	320 A
• maximum	320 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
• maximum	0 A
adjustable current response value current / of instantaneous short-circuit trip unit	
• maximum	320 A
design of the N-conductor protection	Without
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
depth [in]	2.76 in
depth	70 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar	Pront connection nut keeper kit on both ends 12 x 1 mm
type of electrical connection / for main current circuit	nut keeper kit on both ends
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	nut keeper kit on both ends 12 x 1 mm
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)	nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm
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	nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver
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)	nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver
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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	nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm Silver Tin
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- 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)

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

https://support.industry.siemens.com/cs/ww/en/ps/3VM1025-3ED42-0AA0

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

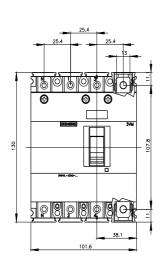
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VM1025-3ED42-0AA0

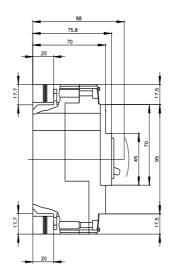
CAx-Online-Generator

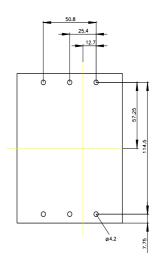
http://www.siemens.com/cax

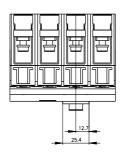
Tender specifications

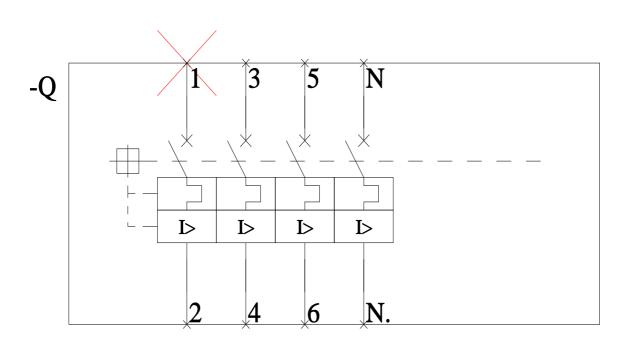
http://www.siemens.com/specifications











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