# **SIEMENS**

## **Data sheet**



circuit breaker 3VM1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 4-pole, line protection TM220, ATFM, In=25A overload protection Ir=18A...25A short-circuit protection Ii=12.8 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	Ш
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	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	
<ul> <li>communication function</li> </ul>	No
other measurement function	No
Net Weight	1.232 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	7 kA
operating short-circuit current breaking capacity (lcs)	

• at 240 V	27 kA
• at 415 V	18 kA
• at 440 V	12 kA
● at 500 V	5 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	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	Спарсе
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with	INU
12t characteristic	
• minimum	17 A
• maximum	25 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 l-tripping	
• minimum	320 A
• maximum	320 A
adjustable setting current (InN) / for N-tripping	
• minimum	25 A
maximum	25 A
adjustable current response value current / of instantaneous	
short-circuit trip unit	
maximum	320 A
design of the N-conductor protection	100%
product function / grounding protection	No
Mechanical Design	
product component	
undervoltage release	No
<ul> <li>voltage trigger</li> </ul>	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	
type of electrical connection / for main current circuit	Front connection
	Front connection nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	
terminal connection / minimum type of connectable conductor cross-sections / for flat-bar	nut keeper kit on both ends
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
terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	nut keeper kit on both ends 12 x 1 mm 17 x 6.5 mm
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
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	nut keeper kit on both ends 12 x 1 mm  17 x 6.5 mm  Silver
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 Tin
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	nut keeper kit on both ends 12 x 1 mm  17 x 6.5 mm  Silver  Tin
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	nut keeper kit on both ends 12 x 1 mm  17 x 6.5 mm  Silver Tin
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	nut keeper kit on both ends 12 x 1 mm  17 x 6.5 mm  Silver  Tin  0
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	nut keeper kit on both ends 12 x 1 mm  17 x 6.5 mm  Silver  Tin
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	nut keeper kit on both ends 12 x 1 mm  17 x 6.5 mm  Silver  Tin  0

- 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



Confirmation

**Miscellaneous** 

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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1125-3GE42-0AA0}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3VM1125-3GE42-0AA0

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

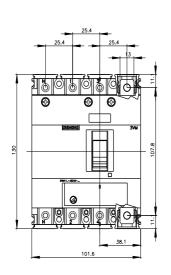
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VM1125-3GE42-0AA0

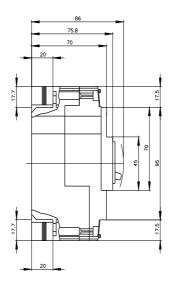
**CAx-Online-Generator** 

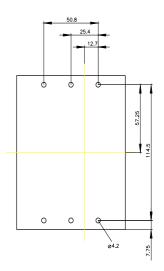
http://www.siemens.com/cax

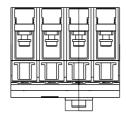
**Tender specifications** 

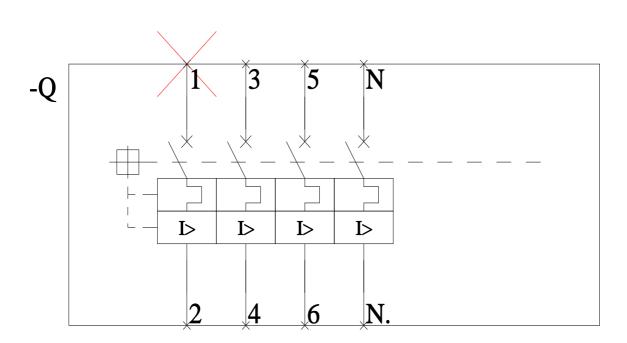
http://www.siemens.com/specifications











last modified: 3/12/2024 🖸

