# **SIEMENS**

## **Data sheet**



circuit breaker 3VM1 IEC frame 160 breaking capacity class S Icu=36kA @ 415V 4-pole, line protection TM220, ATFM, In=50A overload protection Ir=35A...50A 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	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	15 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	4.87 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
<ul> <li>other measurement function</li> </ul>	No
Net Weight	1.2 kg
Current	
operational current	
• at 40 °C	50 A
• at 45 °C	50 A
● at 50 °C	50 A
• at 55 °C	49 A
• at 60 °C	48 A
● at 65 °C	46 A
● at 70 °C	45 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	7 kA
operating short-circuit current breaking capacity (Ics)	

- ot 240 V	
• 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	Chapter
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with	INO
12t characteristic	
• minimum	35 A
• maximum	50 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1 s
• maximum	1s
adjustable response value setting current (li) / for I-tripping	
• minimum	500 A
• maximum	500 A
adjustable setting current (InN) / for N-tripping	
• minimum	50 A
• maximum	50 A
adjustable current response value current / of instantaneous short-circuit trip unit	
• maximum	500 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
0 1 1	100
height	130 mm
height width [in]	130 mm 4 in
height width [in]	
width [in]	4 in
width [in] width depth [in]	4 in 101.6 mm 2.76 in
width [in] width depth [in] depth	4 in 101.6 mm
width [in] width depth [in] depth Connections	4 in 101.6 mm 2.76 in 70 mm
width [in] width depth [in] depth  Connections arrangement of electrical connectors / for main current circuit	4 in 101.6 mm 2.76 in 70 mm Front connection
width [in] width 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	4 in 101.6 mm 2.76 in 70 mm
width [in] width 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	4 in 101.6 mm 2.76 in 70 mm  Front connection nut keeper kit on both ends
width [in] width 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	4 in 101.6 mm 2.76 in 70 mm  Front connection nut keeper kit on both ends 12 x 1 mm
width [in] width 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	4 in 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
width [in] width 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)	4 in 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
width [in] width 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)	4 in 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
width [in] width 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	4 in 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
width [in] width 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	4 in 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
width [in] width 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	4 in 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
width [in] width 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	4 in 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
width [in] width 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	4 in 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
width [in] width 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	4 in 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



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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1150-4GE42-0AA0}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3VM1150-4GE42-0AA0

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

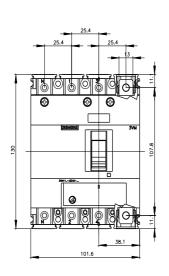
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VM1150-4GE42-0AAl

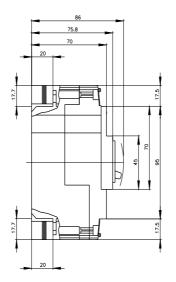
**CAx-Online-Generator** 

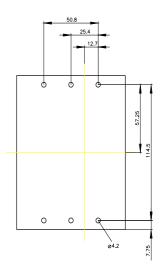
http://www.siemens.com/cax

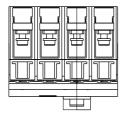
**Tender specifications** 

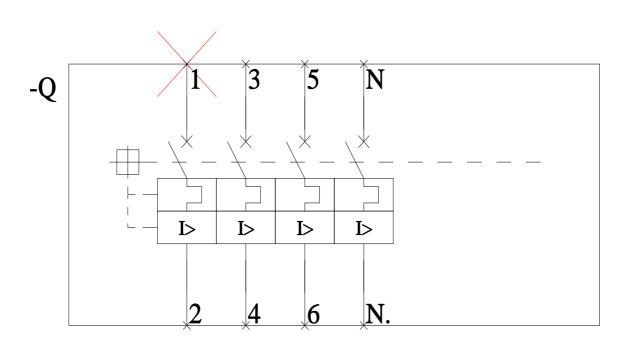
http://www.siemens.com/specifications











last modified: 3/11/2024 🖸

