# **SIEMENS**

## **Data sheet**



circuit breaker 3VM1 IEC frame 160 breaking capacity class S Icu=36kA @ 415V 4-pole, line protection TM220, ATFM, In=63A overload protection Ir=44A...63A 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	17 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	5.77 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	63 A
• at 45 °C	63 A
● at 50 °C	63 A
● at 55 °C	62 A
• at 60 °C	61 A
• at 65 °C	60 A
• at 70 °C	58 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)	

• 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	
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	44 A
• maximum	63 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	630 A
• maximum	630 A
adjustable setting current (InN) / for N-tripping	
• minimum	63 A
• maximum	63 A
adjustable current response value current / of instantaneous short-circuit trip unit	
maximum	630 A
design of the N-conductor protection	100%
product function / grounding protection	No
Mechanical Design	
product component	
<ul> <li>undervoltage release</li> </ul>	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	Front connection
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6.5 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)	Tin
switch (N, 2, 4, 6) Auxiliary circuit	
switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts	Tin 0
switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories	0
switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive	
switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories	0
switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive	0
switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive  Environmental conditions	0 No
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	0 No

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

70 °C -40 °C 80 °C

#### Approvals / Certificates

### **General Product Approval**





Confirmation





<u>Miscellaneous</u>

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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1163-4GE42-0AA0}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3VM1163-4GE42-0AA0

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

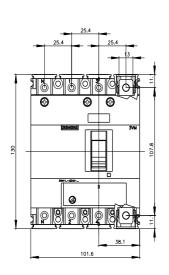
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VM1163-4GE42-0AAC

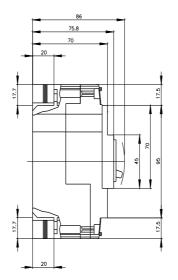
**CAx-Online-Generator** 

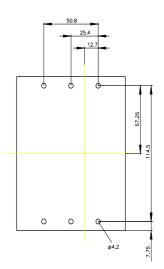
http://www.siemens.com/cax

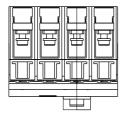
**Tender specifications** 

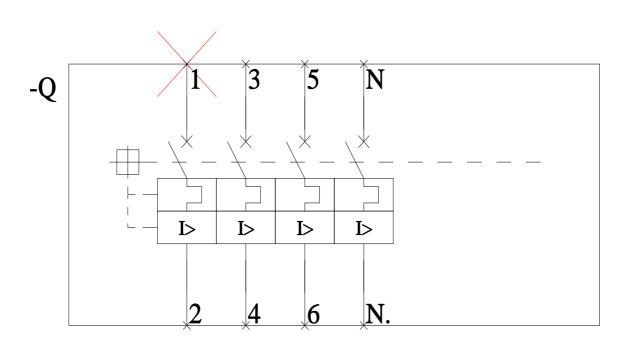
http://www.siemens.com/specifications











last modified: 3/12/2024 🖸

