



circuit breaker 3VM1 IEC frame 160 breaking capacity class N $I_{cu}=25kA$ @ 415V 3-pole, line protection TM220, ATFM, $I_n=80A$ overload protection $I_r=56A...80A$ short-circuit protection $I_i=10 \times I_n$ nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM220
protection function of the overcurrent release	LI
number of poles	3
General technical data	
rated insulation voltage U_i	800 V
Max. rated operational voltage U_e with AC 50/60Hz	500 V
Max. rated operational voltage U_e with DC	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	19 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	6.4 W
mechanical service life (switching cycles) / typical	15 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	6 000
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	968 g
Current	
operational current	
• at 40 °C	80 A
• at 45 °C	80 A
• at 50 °C	80 A
• at 55 °C	78 A
• at 60 °C	77 A
• at 65 °C	75 A
• at 70 °C	74 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	N
breaking capacity maximum short-circuit current (I_{cu})	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	7 kA

breaking capacity operating short-circuit current (Ics)	
• 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	
Adjustable response value current / Ii max.	800 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design	
height [in]	5.12 in
Height	130 mm
width [in]	3 in
Width	76.2 mm
depth [in]	2.76 in
depth	70 mm

Connections	
arrangement of electrical connectors / for main current circuit	Front connection
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

Auxiliary circuit	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
number of CO contacts / for auxiliary contacts	0

Accessories	
product extension / optional / motor drive	No

Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C

Certificates	
reference code / according to IEC 81346-2	Q

General Product Approval	Declaration of Conformity
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[Confirmation](#)



[Miscellaneous](#)



Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)



other

[Miscellaneous](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1180-3EE32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VM1180-3EE32-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VM1180-3EE32-0AA0

CAX-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>

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