

circuit breaker 3VA1 IEC frame 160 breaking capacity class H
Icu=70kA @ 415V 3-pole, line protection TM220, ATFM, In=80A
overload protection Ir=56A...80A short-circuit protection li=10 x In 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	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
Max. rated operational voltage Ue with DC	500 V
power loss [W] / maximum	19.2 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	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
ground fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
net weight	0.9 kg

Current	
Max. rated operational current of the frame size	160 A
Courant permanent assigné lu	80 A
operating 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
- at 70 °C

75 A
74 A

Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	H
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	55 kA
• at 500 V	10 kA
• at 690 V	10 kA
operational short-circuit current breaking capacity (Ics)	
• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	40 kA
• at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	220 kA
• at 415 V	154 kA
• at 440 V	121 kA
• at 500 V	17 kA
• at 690 V	17 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter

Adjustable parameters

Adjustable response value current / I _g min.	56 A
Adjustable response value current / I _g min.	80 A
Short-term delayed / tripping switchable / I _{2t} =ON/OFF	No
Adjustable response value current / I _i min.	800 A
Adjustable response value current / I _i max.	800 A
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No

Mechanical Design

height [in]	5.1 in
Height	130 mm
width [in]	3 in
Width	76.2 mm
depth [in]	2.8 in
depth	70 mm

Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 0 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5 mm

Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0

Accessories	
product extension / optional / motor drive	Yes

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 / acc. to DIN EN 81346-2	Q

General Product Approval	EMC	Declaration of Conformity
 CCC	 EAC	 EG-Konf.
 VDE	Miscellaneous	 RCM

Test Certificates	Shipping Approval
Type Test Certificates/Test Report	 ABS
Miscellaneous	 BUREAU VERITAS
Special Test Certificate	 LRS

Shipping Approval	other
 RMRS	CCS / China Classification Society
	Manufacturer Declaration
	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=3VA1180-6EE32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-6EE32-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-6EE32-0AA0

CAX-Online-Generator

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

Tender specifications

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

last modified:

10/30/2020