

circuit breaker 3VA1 IEC frame 160 breaking capacity class N
Icu=25kA @ 415V 4-pole, line protection TM220, ATFM, In=100A
overload protection Ir=70A...100A short-circuit protection li=10 x In N
conductor protection 50% 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	4

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	600 V
power loss [W] / maximum	25 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	8.33 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	1.2 kg

Current	
Max. rated operational current of the frame size	160 A
Courant permanent assigné lu	100 A
operating current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	98 A
• at 60 °C	96 A

- at 65 °C
- at 70 °C

94 A
91 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
• at 690 V	7 kA
operational short-circuit current breaking capacity (Ics)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	5 kA
• at 690 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	11.9 kA
• at 690 V	11.9 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.	70 A
Adjustable response value current / I _g min.	100 A
Short-term delayed / tripping switchable / I _{2t} =ON/OFF	No
Adjustable response value current / I _i min.	1 000 A
Adjustable response value current / I _i max.	1 000 A
design of the N-conductor protection	50%
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No

Mechanical Design

height [in]	5.1 in
Height	130 mm
width [in]	4 in
Width	101.6 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 / maximum70 °C during storage / minimum-40 °C during storage / maximum80 °C		
Certificates			
reference code / acc. to DIN EN 81346-2	Q		
General Product Approval		EMC	Declaration of Conformity
 CCC	 VDE	Miscellaneous  EAC	 RCM  EG-Konf.
Test Certificates		Shipping Approval	
Type Test Certificates/Test Report	Miscellaneous	Special Test Certificate	 ABS  BUREAU VERITAS  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=3VA1110-3FE42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1110-3FE42-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1110-3FE42-0AA0

CAX-Online-Generator

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

Tender specifications

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

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