

circuit breaker 3VA1 IEC frame 160 breaking capacity class M
 $I_{cu}=55kA @ 415V$ 3-pole, starter protection TM120M, AM, $I_n=100A$
 without overload protection short-circuit protection $I_i=5...15 \times I_n$ nut
 keeper kit undervoltage release (UVR) 24V DC 2 auxiliary switches
 HQ 1 trip alarm switch HQ



Model	
Product brand name	SENTRON
Product designation	Molded case circuit breaker
Product version	Starter protection
Design of the overcurrent release	TM120M
Protective function of the overcurrent release	I
Number of poles	3
Design of the auxiliary release	Undervoltage release (UVR)
Auxiliary contact version	2 auxiliary switches + 1 trip alarm switch HQ
General technical data	
Rated insulation voltage U_i	800 V
Max. rated operational voltage U_e with AC 50/60Hz	690 V
Max. rated operational voltage U_e with DC	500 V
Latching - endurance	15 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	

• communication function	No
• Phase failure detection	No
• other measurement function	No
Net weight	1.05 kg

Current

Max. rated operational current of the frame size	160 A
Rated continuous current I _u	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	94 A
• at 70 °C	91 A

Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	M
Maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	36 kA
• at 690 V	5 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	36 kA
• at 690 V	5 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	187 kA
• at 415 V	121 kA
• at 440 V	75.6 kA
• at 690 V	8.5 kA

Adjustable parameters

Adjustable response value current / I _r min.	0 A
Adjustable response value current / I _r max.	0 A
Short-term delayed / tripping switchable / I _{2t} =ON/OFF	No
Adjustable response value current / I _i min.	700 A
Adjustable response value current / I _i max.	1 600 A

Mechanical Design

Height	130 mm
Width	76.2 mm
Depth	70 mm

Connections

Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	lug terminal
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 1
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5

Auxiliary circuit

Product component	
<ul style="list-style-type: none"> • undervoltage release • Voltage trigger • undervoltage release with leading contact • Trip indicator 	<ul style="list-style-type: none"> Yes No No Yes
Number of CO contacts / for auxiliary contacts	3

Accessories

Product extension / optional / motor drive	Yes
Manufacturer's article number	
<ul style="list-style-type: none"> • of the integrated auxiliary switch/alarm switch • of the integrated auxiliary switch/alarm switch • of the integrated auxiliary trip 	<ul style="list-style-type: none"> 3VA9988-0AA12 3VA9988-0AB12 3VA9608-0BB11

Environmental conditions

Protection class IP / on the front	IP40
Ambient temperature	
<ul style="list-style-type: none"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum 	<ul style="list-style-type: none"> -25 °C 70 °C -40 °C 80 °C

Certificates

Reference code / acc. to DIN EN 81346-2	Q
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General Product Approval	EMC	Declaration of Conformity
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CCC



VDE

[Miscellaneous](#)



RCM



EG-Konf.

Test Certificates	Shipping Approval	other
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[Miscellaneous](#)

[Special Test Certificate](#)



LRS

[CCS / China Classification Society](#)

[Confirmation](#)

[Manufacturer Declaration](#)

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=3VA1110-5MH32-0BH0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1110-5MH32-0BH0>

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

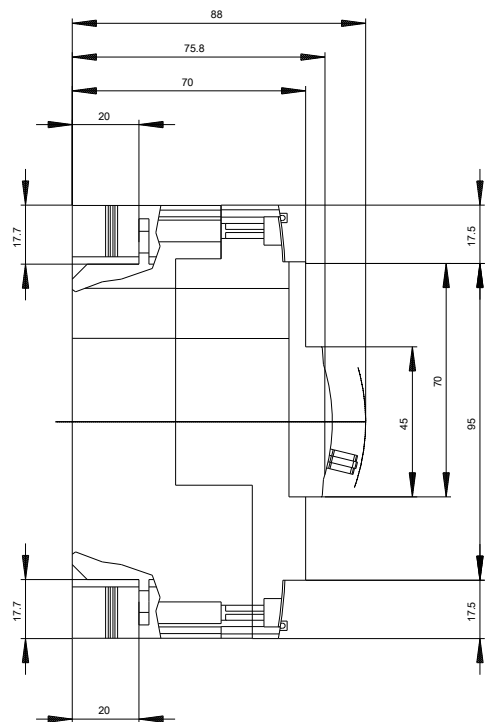
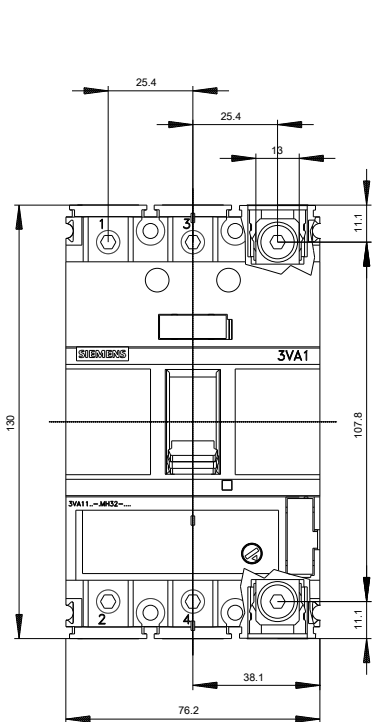
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1110-5MH32-0BH0

CAX-Online-Generator

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

Tender specifications

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





last modified:

08/10/2019