

circuit breaker 3VA1 IEC frame 160 breaking capacity class M  
 $I_{cu}=55kA @ 415V$  3-pole, starter protection TM120M, AM,  $I_n=125A$   
 without overload protection short-circuit protection  $I_i=5...15 \times I_n$  nut  
 keeper kit shunt trip (STL) 110-127V DC, AC 50/60Hz 2 auxiliary  
 switches 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	Shunt trip (STL)
Auxiliary contact version	2 auxiliary switches 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 <sub>u</sub>	125 A
Operating current	
• at 40 °C	125 A
• at 45 °C	125 A
• at 50 °C	125 A
• at 55 °C	122 A
• at 60 °C	120 A
• at 65 °C	117 A
• at 70 °C	114 A

### Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	M
Maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• 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 <sub>cs</sub> )	
• 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 <sub>cm</sub> )	
• 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 <sub>r</sub> min.	0 A
Adjustable response value current / I <sub>r</sub> max.	0 A
Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF	No
Adjustable response value current / I <sub>i</sub> min.	875 A
Adjustable response value current / I <sub>i</sub> max.	2 000 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"> <li>• undervoltage release</li> <li>• Voltage trigger</li> <li>• undervoltage release with leading contact</li> <li>• Trip indicator</li> </ul>	<p>No</p> <p>Yes</p> <p>No</p> <p>No</p>
Number of CO contacts / for auxiliary contacts	2

### Accessories

Product extension / optional / motor drive	Yes
Manufacturer's article number	
<ul style="list-style-type: none"> <li>• of the integrated auxiliary switch/alarm switch</li> <li>• of the integrated auxiliary trip</li> </ul>	<p><a href="#">3VA9988-0AA12</a></p> <p>3VA9688-0BL32</p>

### Environmental conditions

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

### 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
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[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=3VA1112-5MH32-0JC0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1112-5MH32-0JC0>

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

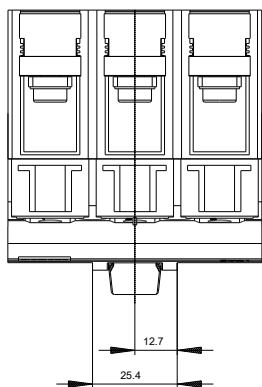
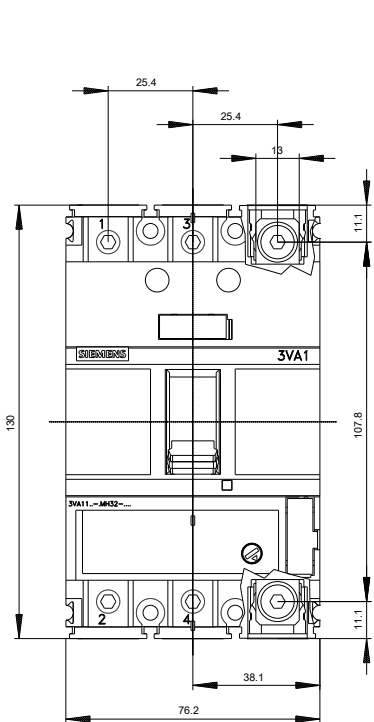
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1112-5MH32-0JC0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1112-5MH32-0JC0)

**CAX-Online-Generator**

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

**Tender specifications**

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





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