

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 3-POLE, MOTOR STARTER PROTECTION TM120M, AM, IN=100A WITHOUT OVERLOAD PROTECTION SHORT CIRCUIT PROTECTION II=5...15 X IN BUSBAR CONNECTION SHUNT TRIP (STL) 110-127 V DC, AC 50/60 HZ



Model	
product brandname	SENTRON
Product designation	Molded case circuit breaker
Design of the product	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)
Design of the auxiliary switch	Without
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
Operating power / at AC-3 / at 400 V	0 W
Operating power / at AC-3 / at 230 V	0 W
Active power loss / for rated value of the current / at AC / in hot operating state / per device	25 W
Mechanical service life (switching cycles) / typical	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	0.9 kg

### Electricity

Max. rated operational voltage of the size of the circuit-breaker	160 A
Courant permanent assigné Iu	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	H
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	55 kA
• at 690 V	5 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	40 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 690 V	8.5 kA

### Adjustable parameters

Adjustable response value current / I <sub>g</sub> min.	0 A
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Adjustable response value current / lg min.	0 A
Adjustable response value current / lg min.	0 A
Adjustable response value current / lg min.	0 A
Adjustable response value current / li min.	0 A
Adjustable response value current / li max.	0 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> </ul>	No
<ul style="list-style-type: none"> <li>• Voltage trigger</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• undervoltage release with leading contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• Trip indicator</li> </ul>	No

### Accessories

Product extension / optional / motor drive	Yes
Manufacturer's article number	
<ul style="list-style-type: none"> <li>• of the supplied basic switch</li> </ul>	<a href="#">3VA1110-6MH32-0AA0</a>
<ul style="list-style-type: none"> <li>• of the integrated auxiliary trip</li> </ul>	3VA9688-0BL32

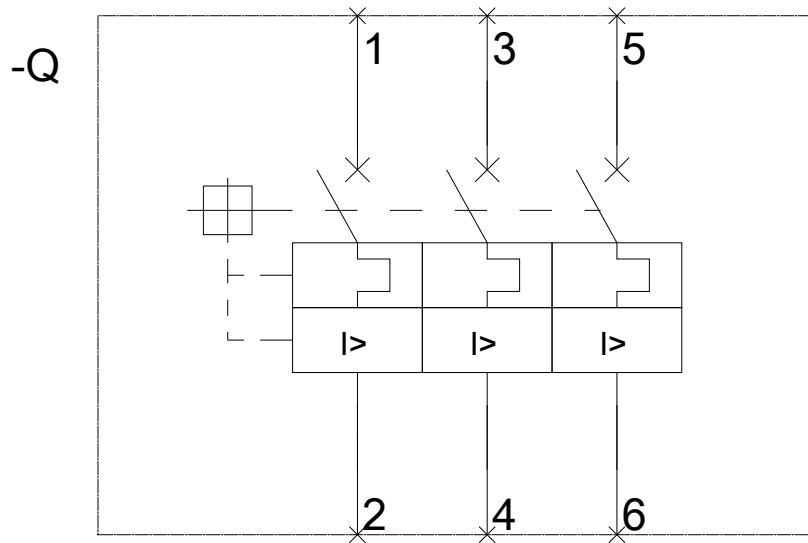
### Environmental conditions

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

### Certificates

Equipment marking / acc. to DIN EN 81346-2	Q
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last modified:

10/24/2016