



circuit breaker 3VA1 IEC frame 250 breaking capacity class M Icu=55kA @ 415V 3-pole, starter protection TM120M, AM, In=160A without overload protection short-circuit protection Ii=7...16 x In nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Starter protection
design of the overcurrent release	TM120M
protection function of the overcurrent release	I
number of poles	3
General technical data	
rated insulation voltage Ui	800 V
power loss [W] / maximum	33 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	11 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	5 400
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	1.8 kg
Current	
Max. rated operational current of the frame size	250 A
Courant permanent assigné Iu	160 A
operational current	
• at 40 °C	160 A
• at 45 °C	160 A
• at 50 °C	160 A
• at 55 °C	156 A
• at 60 °C	151 A
• at 65 °C	147 A
• at 70 °C	142 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
breaking capacity maximum short-circuit current (Icu)	

<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	85 kA 55 kA 36 kA 15 kA 3 kA
breaking capacity operating short-circuit current (Ics) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	85 kA 55 kA 36 kA 10 kA 3 kA
short-circuit current making capacity (Icm) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	187 kA 121 kA 75.6 kA 30 kA 4.5 kA

#### Adjustable parameters

Adjustable response value current / li min.	1 120 A
Adjustable response value current / li max.	2 560 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

#### Mechanical Design

height [in]	6.22 in
Height	158 mm
width [in]	4.13 in
Width	105 mm
depth [in]	2.76 in
depth	70 mm

#### Connections

arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	nut keeper kit on both ends
Type of connectable conductor cross-section, connection screw, width x thickness , min.	13 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	25 x 8 mm

#### Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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#### Accessories

product extension / optional / motor drive	Yes
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#### 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>	-25 °C 70 °C -40 °C 80 °C

#### Certificates

reference code / acc. to IEC 81346-2	Q
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<b>General Product Approval</b>	<b>EMC</b>
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Miscellaneous

KC



Declaration of Conformity	Test Certificates	Marine / Shipping
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[UK Declaration of Conformity](#)



[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



Marine / Shipping

other



[Miscellaneous](#)

[Confirmation](#)

[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=3VA1216-5MH32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1216-5MH32-0AA0>

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

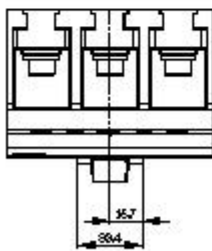
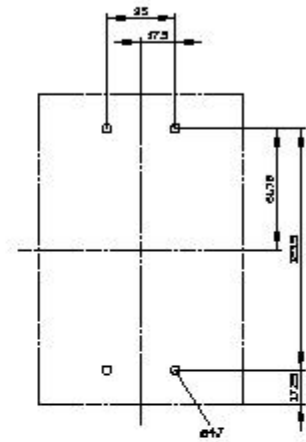
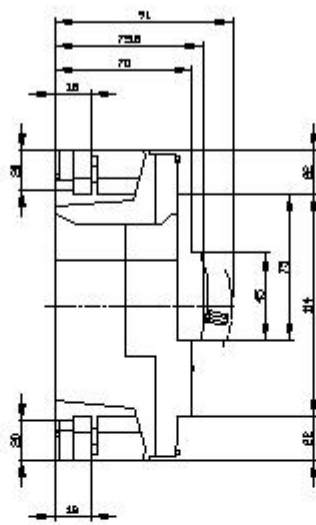
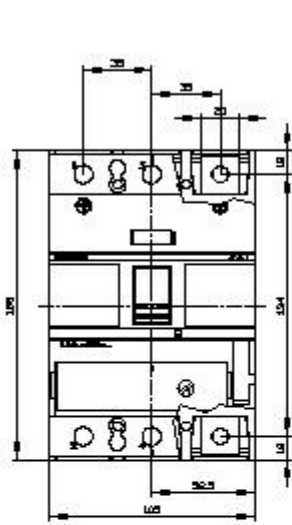
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1216-5MH32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1216-5MH32-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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





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