

circuit breaker 3VA1 IEC frame 160 breaking capacity class M
 $I_{cu}=55kA @ 415V$ 3-pole, starter protection TM120M, AM, $I_n=80A$
 without overload protection short-circuit protection $I_i=7...16 \times I_n$
 clamp connection



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
General technical data	
Rated insulation voltage U_i	800 V
Max. rated operational voltage U_e with AC 50/60Hz	690 V
Power loss [W] / maximum	14.4 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4.8 W
Latching - endurance	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
• Phase failure detection	No
• other measurement function	No
Net weight	0.9 kg

Current

Max. rated operational current of the frame size	160 A
Rated continuous current I _u	80 A
Operating current	
• at 40 °C	80 A
• at 45 °C	80 A
• at 50 °C	80 A
• at 55 °C	78 A
• at 60 °C	77 A
• at 65 °C	75 A
• at 70 °C	74 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 500 V	5 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 500 V	5 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	76 kA
• at 500 V	7.5 kA
• at 690 V	7.5 kA

Adjustable parameters

Short-term delayed / tripping switchable / I _{2t} =ON/OFF	No
--	----

Adjustable response value current / li min.	560 A
Adjustable response value current / li max.	1 280 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

Height [in]	5.1 in
Height	130 mm
Width [in]	3 in
Width	76.2 mm
Depth [in]	2.8 in
Depth	70 mm

Connections

Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	box terminal
Type of connectable conductor cross-section, round conductor terminal, stranded	1 x (1.5 - 70 mm ²)

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	
<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
---	---

General Product Approval	EMC	Declaration of Conformity
--------------------------	-----	---------------------------



CCC



VDE

[KC](#)



RCM



EG-Konf.

Test Certificates	Shipping Approval	other
-------------------	-------------------	-------

[Miscellaneous](#)

[Special Test Certificate](#)



LRS

[Confirmation](#)

[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=3VA1180-5MH36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-5MH36-0AA0>

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

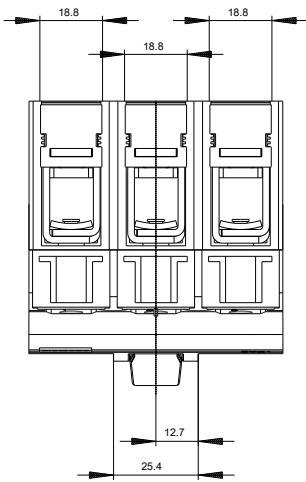
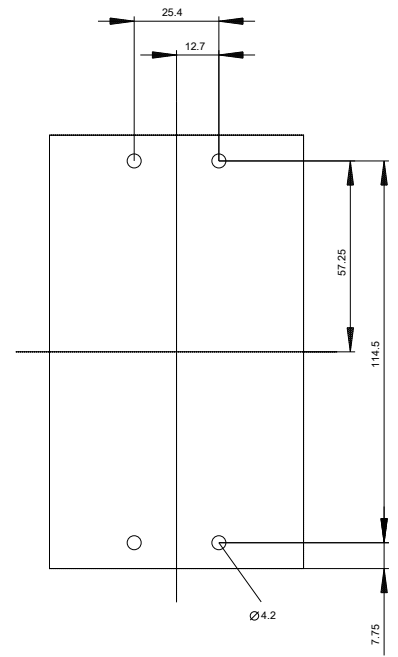
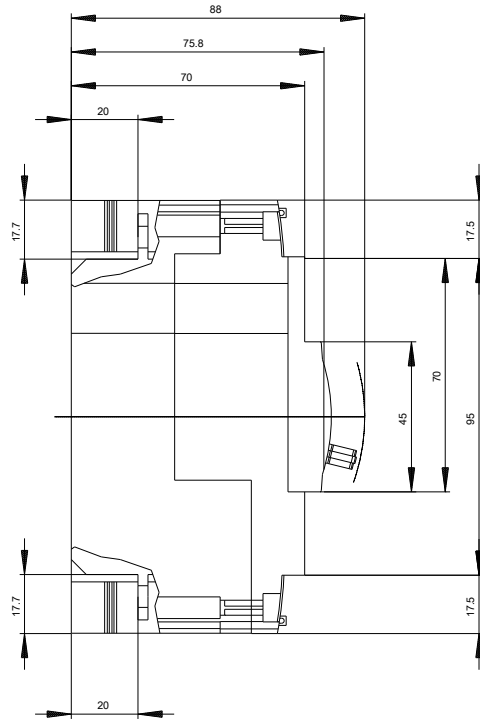
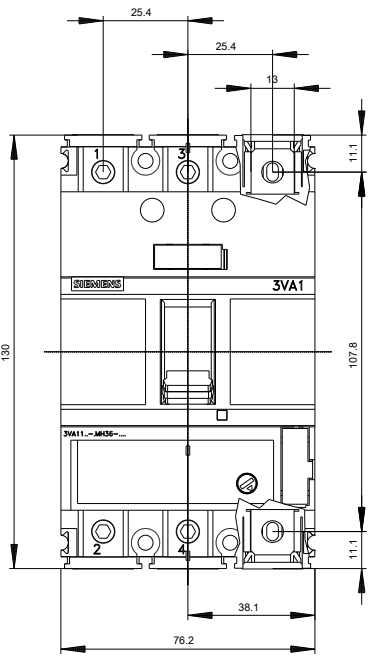
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-5MH36-0AA0

CAX-Online-Generator

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

Tender specifications

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





last modified:

07/06/2019