



circuit breaker 3VA1 IEC Frame 160 breaking capacity class H $I_{cu}=70 \text{ kA} @ 415 \text{ V}$
3-pole, starter protection TM120M, AM, $I_n=100 \text{ A}$ without overload protection short-circuit protection $I_i=5 \dots 15 \times I_n$ nut keeper kit shunt trip (STL) 110-127 V DC, AC 50/60 Hz 2 auxiliary switches HQ

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Starter protection
design of the overcurrent release	TM120M
protection function of the overcurrent release	I
number of poles	3
design of the auxiliary release	shunt trip (STL)
design of the auxiliary switch	2 auxiliary switches HQ
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	25 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	9 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	6 300
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	1.05 kg
Current	
operational 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 (I_{cu})	
• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	55 kA
• at 500 V	5 kA

• at 690 V	5 kA
operating short-circuit current breaking capacity (Ics)	
• at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	100 kA 70 kA 40 kA 5 kA 5 kA
short-circuit current making capacity (Icm)	
• at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	220 kA 154 kA 121 kA 7.5 kA 7.5 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter
Adjustable parameters	
adjustable response value setting current (Ii) / for I-tripping	
• minimum • maximum	700 A 1 600 A
adjustable setting current (InN) / for N-tripping	
• minimum • maximum	100 A 100 A
product function / grounding protection	No
Mechanical Design	
product component	
• undervoltage release • voltage trigger • trip indicator	No Yes No
height [in]	5.12 in
height	130 mm
width [in]	3 in
width	76.2 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-sections / for flat-bar terminal connection / minimum	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6,5 mm
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	Silver
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Tin
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	2
Accessories	
product extension / optional / motor drive	Yes
manufacturer's article number	
• of the supplied basic switch • of the integrated auxiliary switch/alarm switch • of the integrated auxiliary trip unit	3VA11106MH320AA0 3VA9988-0AA12 3VA9688-0BL32
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
• during operation / minimum • during operation / maximum • during storage / minimum	-25 °C 70 °C -40 °C

• during storage / maximum

80 °C

reference code / according to IEC 81346-2

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Approvals / Certificates

General Product Approval



CCC



VDE

[Miscellaneous](#)



[Confirmation](#)

General Product Approval

EMV

Test Certificates

Maritime application



EG-Konf.



RCM

[Miscellaneous](#)

[Special Test Certificate](#)



Maritime application

other

Environment



DNV

[CCS \(China Classification Society\)](#)

[Miscellaneous](#)

[Confirmation](#)



[Environmental Confirmations](#)

Environment

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1110-6MH32-0JC0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1110-6MH32-0JC0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1110-6MH32-0JC0

CAX-Online-Generator

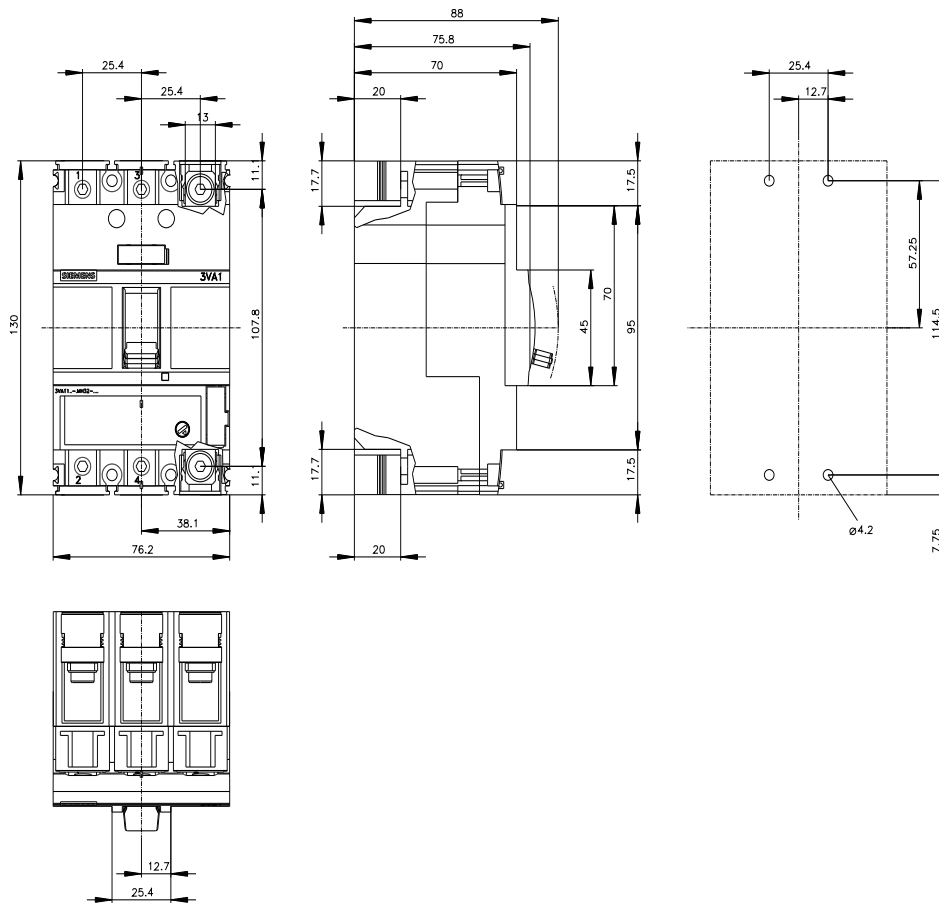
<https://www.siemens.com/cax>

Tender specifications

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

Characteristic curves

https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>



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