



circuit breaker 3VA1 IEC frame 630 breaking capacity class H $I_{cu}=70\text{kA}$ @ 415V 3-pole, starter protection TM120M, AM, $I_n=500\text{A}$ without overload protection short-circuit protection $I_i=8...16 \times I_n$ 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 U_i	800 V
power loss [W] / maximum	122.7 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	40.9 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	3 000
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	4,928 kg
Current	
Max. rated operational current of the frame size	630 A
Courant permanent assigné I_u	500 A
operational current	
• at 40 °C	500 A
• at 45 °C	500 A
• at 50 °C	500 A
• at 55 °C	488 A
• at 60 °C	476 A
• at 65 °C	464 A
• at 70 °C	452 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	H
breaking capacity maximum short-circuit current (I_{cu})	
• at 240 V	100 kA
• at 415 V	70 kA

<ul style="list-style-type: none"> • at 440 V • at 500 V • at 690 V 	70 kA 55 kA 10 kA
breaking capacity operating short-circuit current (Ics) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	100 kA 70 kA 70 kA 55 kA 6 kA
short-circuit current making capacity (Icm) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	220 kA 154 kA 154 kA 121 kA 17 kA

Adjustable parameters

Adjustable response value current / li min.	2 500 A
Adjustable response value current / li max.	5 000 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

height [in]	9.76 in
Height	248 mm
width [in]	5.43 in
Width	138 mm
depth [in]	4.33 in
depth	110 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.	20 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	35 x 10 mm
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Silver

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"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum 	-25 °C 70 °C -40 °C 80 °C

Certificates

reference code / acc. to IEC 81346-2	Q
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General Product Approval	EMC	Declaration of Conformity
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[Miscellaneous](#)



[UK Declaration of Conformity](#)

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

[Special Test Certificate](#)



[Confirmation](#)

other

[Miscellaneous](#)

[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=3VA1450-6MH32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1450-6MH32-0AA0>

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

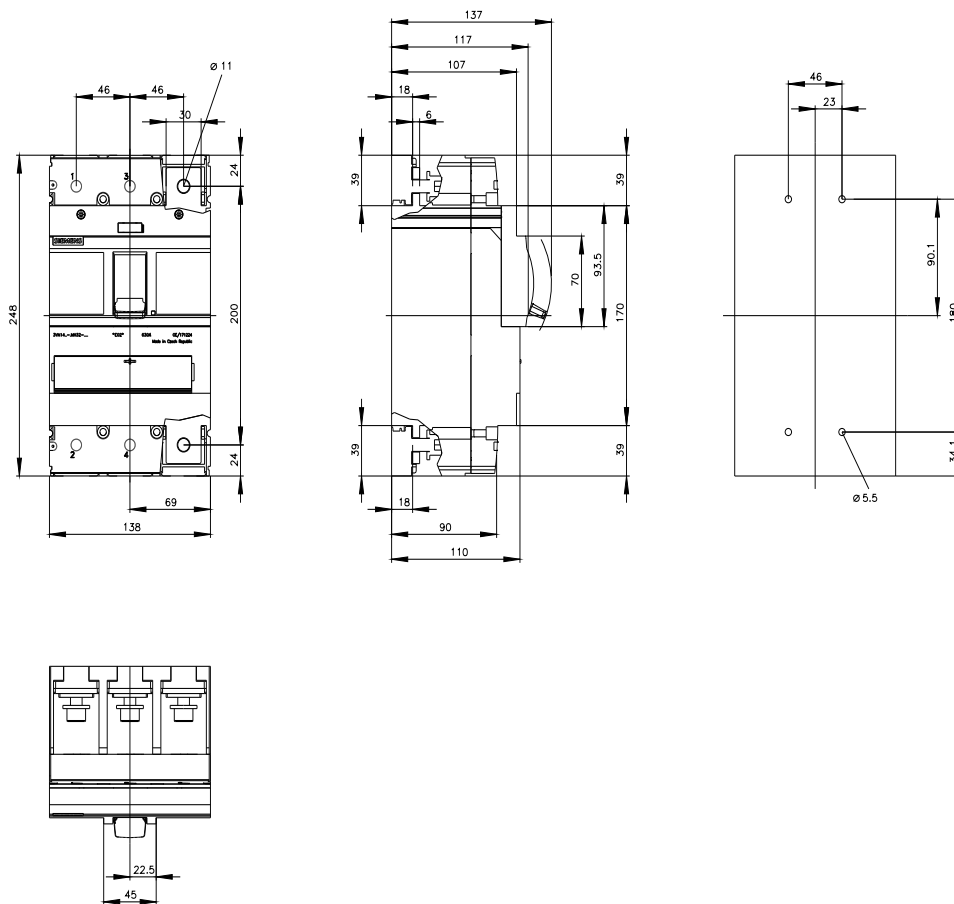
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1450-6MH32-0AA0

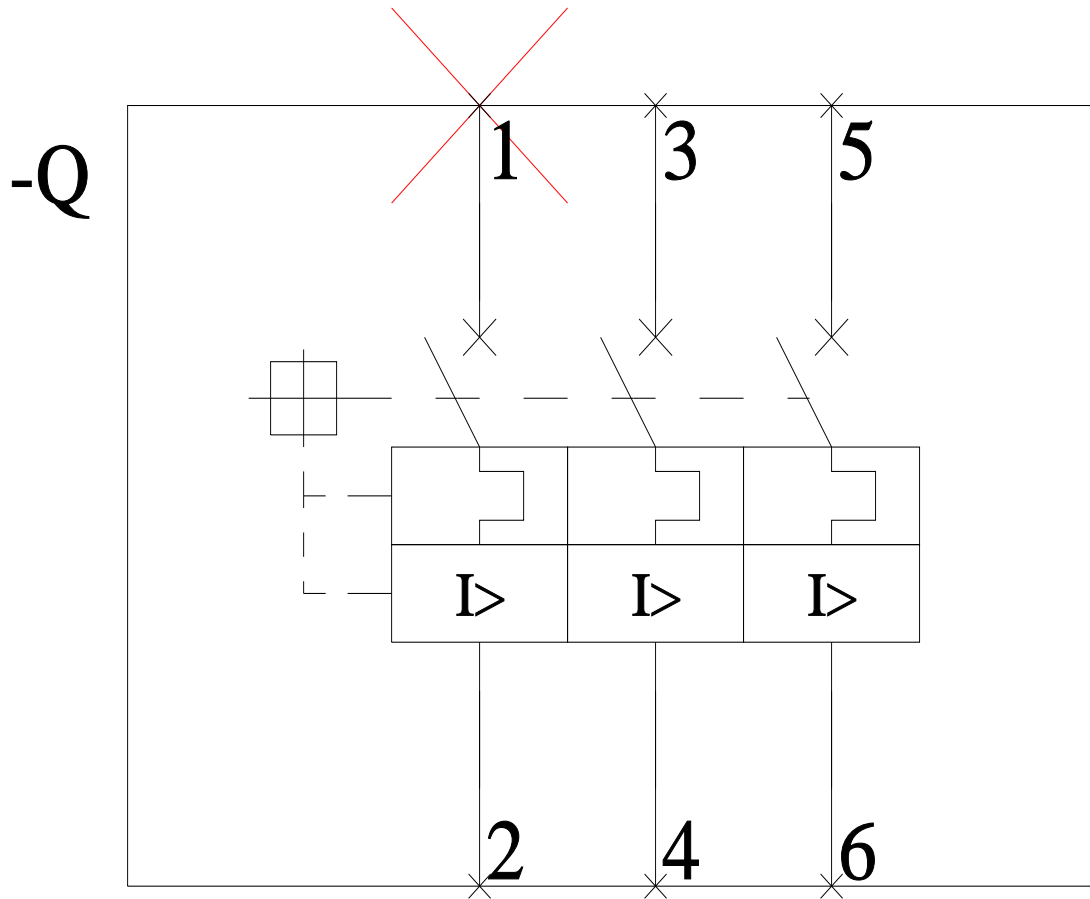
CAx-Online-Generator

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

Tender specifications

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





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