

circuit breaker 3VM1 IEC frame 630 breaking capacity class N
 $I_{cu}=36kA @ 415V$ 4-pole, line protection TM220, ATFM, $I_n=500A$
 overload protection $I_r=350A...500A$ short-circuit protection $I_i=10 \times I_n$
 N conductor protection 100% nut keeper kit



Model	
Product brand name	SENTRON
Product designation	Molded case circuit breaker
Product version	Line protection
Design of the overcurrent release	TM220
Protective function of the overcurrent release	LI
Number of poles	4
General technical data	
Rated insulation voltage U_i	690 V
Max. rated operational voltage U_e with AC 50/60Hz	500 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	8 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	

• communication function	No
• other measurement function	No
Net weight	5.1 kg

Current

Max. rated operational current of the frame size	630 A
Rated continuous current I _u	500 A
Operating 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	S
Maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	36 kA
• at 500 V	25 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	41 kA
• at 415 V	27 kA
• at 440 V	27 kA
• at 500 V	18 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	121 kA
• at 415 V	76 kA
• at 440 V	76 kA
• at 500 V	53 kA

Adjustable parameters

Adjustable response value current / I _r min.	350 A
Adjustable response value current / I _r max.	500 A
Adjustable response value current / I _i min.	5 000 A
Adjustable response value current / I _i max.	5 000 A
Design of the N-conductor protection	100%
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No

Mechanical Design

Height [in]	9.8 in
Height	248 mm
Width [in]	7.2 in
Width	184 mm
Depth [in]	4.3 in
Depth	110 mm

Connections

Arrangement of electrical connectors / for main current circuit	Front connection
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Auxiliary circuit

Number of CO contacts / for auxiliary contacts	0
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Accessories

Product extension / optional / motor drive	No
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Environmental conditions

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

Certificates

Reference code / acc. to DIN EN 81346-2	Q
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General Product Approval	Declaration of Conformity	Test Certificates
 CCC	 EAC	 EG-Konf.
 VDE	Miscellaneous	Type Test Certificates/Test Report

Shipping Approval



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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=3VM1450-4GE42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VM1450-4GE42-0AA0>

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

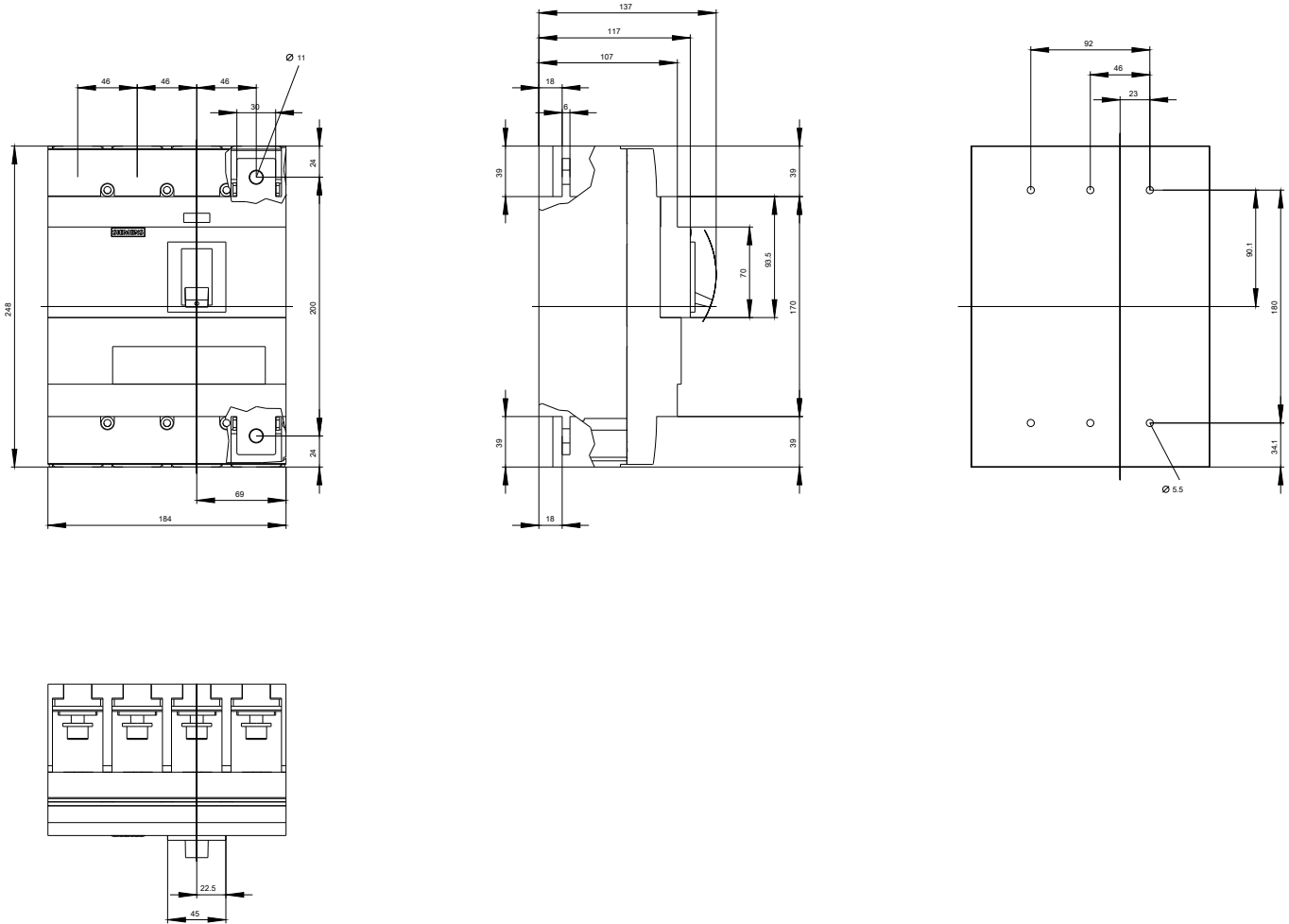
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VM1450-4GE42-0AA0

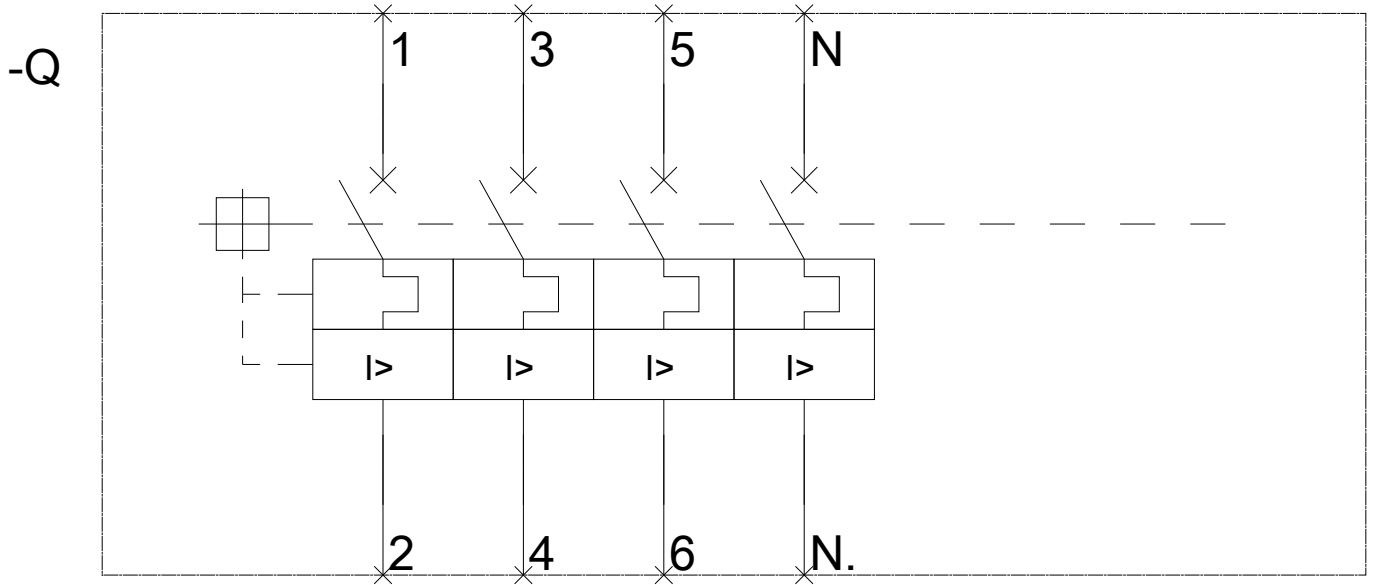
CAx-Online-Generator

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

Tender specifications

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





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