



circuit breaker 3VA1 IEC frame 630 breaking capacity class H  $I_{cu}=70kA @ 415V$  4-pole, line protection TM240, ATAM,  $I_n=500A$  overload protection  $I_r=350A...500A$  short-circuit protection  $I_i=5...10 \times I_n$  N conductor unprotected nut keeper kit



Model	
product brand name	SETRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM240
protection function of the overcurrent release	LI
number of poles	4
General technical data	
Tension assignée d'isolement $U_i$	800 V
Max. rated operational voltage $U_e$ with AC 50/60Hz	690 V
Max. rated operational voltage $U_e$ with DC	600 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	15 000
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	2 700
Neutral conductors / upgradeable/retrofittable	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
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 <sub>cu</sub> )	
<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>	100 kA 70 kA 70 kA 55 kA 10 kA
breaking capacity operating short-circuit current (I <sub>cs</sub> )	
<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>	100 kA 70 kA 70 kA 55 kA 6 kA
short-circuit current making capacity (I <sub>cm</sub> )	
<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>	220 kA 154 kA 154 kA 121 kA 17 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
<b>Adjustable parameters</b>	
Adjustable response value current / I <sub>g</sub> min.	350 A
Adjustable response value current / I <sub>g</sub> min.	500 A
Adjustable response value current / I <sub>i</sub> min.	2 500 A
Adjustable response value current / I <sub>i</sub> max.	5 000 A
design of the N-conductor protection	Without
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No
<b>Mechanical Design</b>	
height [in]	9.8 in
Height	248 mm
width [in]	7.2 in
Width	184 mm
depth [in]	4.3 in
depth	110 mm
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Front terminal
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / optional / motor drive	Yes
<b>Environmental conditions</b>	
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
<b>Certificates</b>	
reference code / acc. to IEC 81346-2	Q
<b>General Product Approval</b>	<b>EMC</b>



Miscellaneous



Declaration of Conformity	Test Certificates			Shipping Approval	other
 EG-Konf.	<a href="#">Miscellaneous</a>	<a href="#">Miscellaneous</a>	<a href="#">Type Test Certificates/Test Report</a>	 LRS	<a href="#">Manufacturer Declaration</a>

other

[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=3VA1450-6EF42-0AA0>

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

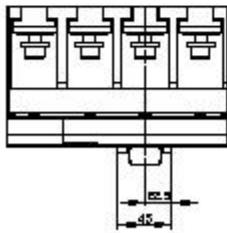
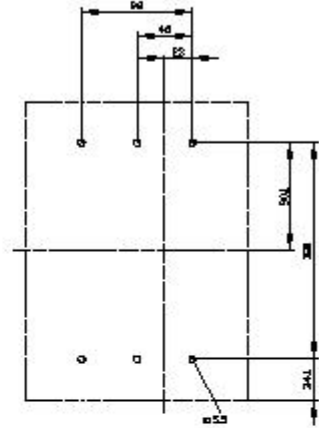
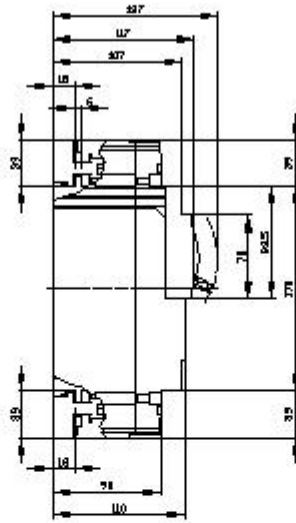
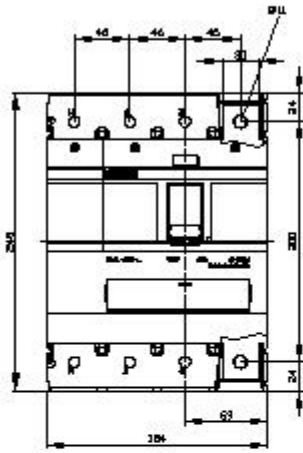
<https://support.industry.siemens.com/cs/ww/en/ps/3VA1450-6EF42-0AA0>

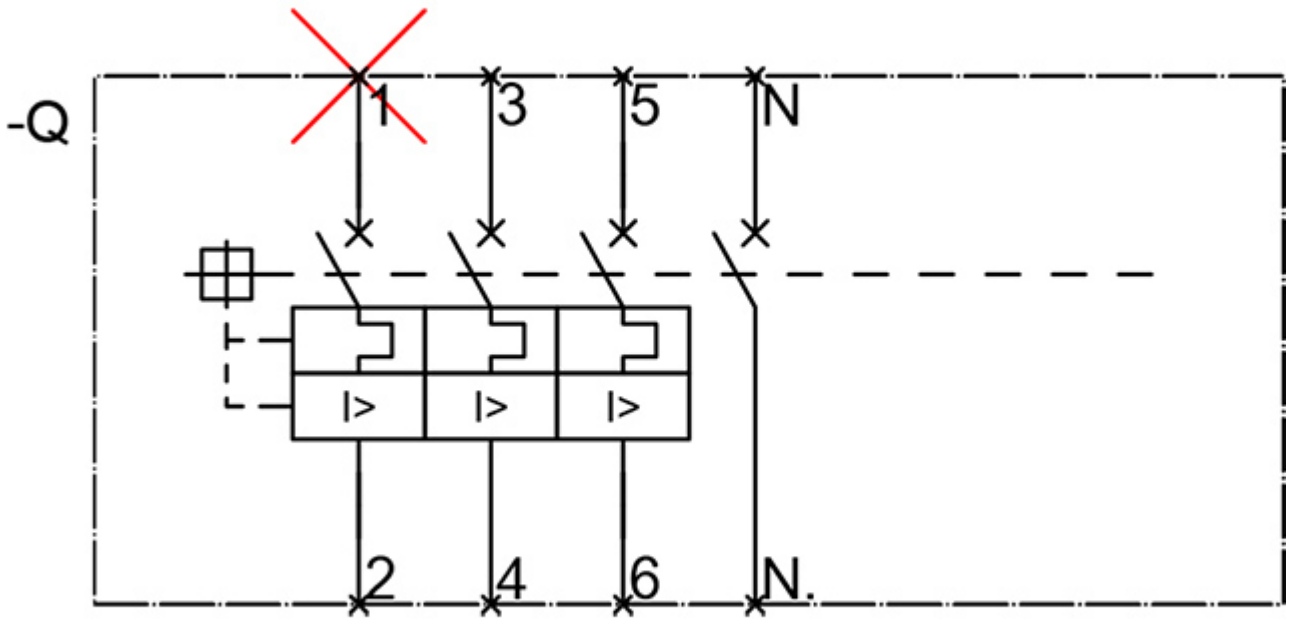
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1450-6EF42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1450-6EF42-0AA0)

**Tender specifications**

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





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