

circuit breaker 3VA1 IEC frame 630 breaking capacity class C
Icu=110kA @ 415 V 4-pole, line protection TM240, ATAM, In=500A
overload protection Ir=350A ...500A short-circuit protection Ii=5...10 x
In N conductor protection 1 nut keeper kit

Model	
product brand name	SENTRON
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 Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
Max. rated operational voltage Ue 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/retrofitable	No
ground fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No

Current	
Max. rated operational current of the frame size	630 A
Courant permanent assigné Iu	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	C
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	200 kA
• at 415 V	110 kA
• at 440 V	110 kA
• at 500 V	70 kA
• at 690 V	10 kA
operational short-circuit current breaking capacity (Ics)	
• at 240 V	200 kA
• at 415 V	110 kA
• at 440 V	110 kA
• at 500 V	70 kA
• at 690 V	6 kA
short-circuit current making capacity (Icm)	
• at 240 V	440 kA
• at 415 V	242 kA
• at 440 V	242 kA
• at 500 V	154 kA
• at 690 V	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

Adjustable parameters

Adjustable response value current / I _g min.	350 A
Adjustable response value current / I _g min.	500 A
Adjustable response value current / I _i min.	2 500 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 terminal	
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			
• during operation / minimum		-25 °C	
• during operation / maximum		70 °C	
• during storage / minimum		-40 °C	
• during storage / maximum		80 °C	
Certificates			
reference code / acc. to DIN EN 81346-2		Q	
General Product Approval		EMC	Declaration of Conformity
Test Certificates			
 CCC		 EAC	 RCM
Miscellaneous		 EG-Konf.	Miscellaneous
Test Certificates	Shipping Approval	other	
Type Test Certificates/Test Report	 LRS	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=3VA1450-7GF42-0AA0			
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3VA1450-7GF42-0AA0			
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1450-7GF42-0AA0			
CAX-Online-Generator http://www.siemens.com/cax			
Tender specifications http://www.siemens.com/specifications			

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