



circuit breaker 3VA1 IEC frame 630 breaking capacity class H $I_{cu}=70\text{kA}$ @ 415V 4-pole, line protection TM240, ATAM, $I_n=630\text{A}$ overload protection $I_r=440\text{A}\dots630\text{A}$ short-circuit protection $I_i=4\dots8 \times I_n$ N conductor unprotected nut keeper kit

Model

product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	TM240
protection function of the overcurrent release	LI
number of poles	4

General technical data

insulation voltage / rated value	800 V
operating voltage / at DC / rated value	600 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	192.9 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	64.3 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	4 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 000
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	6.382 kg

Current

continuous current / rated value / maximum	630 A
continuous current / rated value	630 A
operational current	
• at 40 °C	630 A
• at 45 °C	630 A
• at 50 °C	630 A
• at 55 °C	618 A
• at 60 °C	607 A
• at 65 °C	595 A
• at 70 °C	583 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	70 kA

• at 500 V • at 690 V	55 kA
operating short-circuit current breaking capacity (Ics)	10 kA
• 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)	
• 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
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

product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
• minimum • maximum	441 A
	630 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum • maximum	1 s
	1 s
adjustable response value setting current (Ii) / for I-tripping	
• minimum • maximum	2 520 A
	5 040 A
adjustable absolute value setting current (InN) / for N-tripping	
• minimum • maximum	0 A
	0 A
adjustable current response value current / of instantaneous short-circuit trip unit	
• minimum • maximum	3 150 A
	5 040 A
design of the N-conductor protection	without
product function / grounding protection	No

Mechanical Design

product component	
• undervoltage release • voltage trigger • trip indicator	No
	No
	No
height [in]	9.76 in
height	248 mm
width [in]	7.24 in
width	184 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-sections / for flat-bar terminal connection / minimum	20 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	35 x 10 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)	Silver

Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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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 / according to IEC 81346-2	Q	
General Product Approval		EMC

[Confirmation](#)



[Miscellaneous](#)



Declaration of Conformity	Test Certificates			Marine / Shipping
		Special Test Certificate	Type Test Certificates/Test Report	Miscellaneous
	EG-Konf.			

Marine / Shipping	other			
		Miscellaneous	Environmental Conformations	Miscellaneous

Further information
Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875 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=3VA1463-6EF42-0AA0 Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3VA1463-6EF42-0AA0 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1463-6EF42-0AA0 CAX-Online-Generator http://www.siemens.com/cax Tender specifications http://www.siemens.com/specifications



