



circuit breaker 3VA1 IEC Frame 250 breaking capacity class H $I_{cu}=70 \text{ kA @ } 415 \text{ V}$
4-pole, line protection TM240, ATAM, $I_n=160 \text{ A}$ overload protection $I_r=112 \text{ A} \dots 160 \text{ A}$
A short-circuit protection $I_i=5 \dots 10 \times I_n$ neutral conductor protection 100% nut
keeper kit

Model	
product brand name	SETRON
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	33 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	11 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	5 400
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	2.1 kg
Current	
operational current	
• at 40 °C	160 A
• at 45 °C	160 A
• at 50 °C	160 A
• at 55 °C	156 A
• at 60 °C	151 A
• at 65 °C	147 A
• at 70 °C	142 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	36 kA

• at 500 V • at 690 V	15 kA 10 kA
operating short-circuit current breaking capacity (Ics) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	100 kA 70 kA 36 kA 10 kA 5 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 75.6 kA 30 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 (I _r) / of the L-trip / with I _{2t} characteristic • minimum • maximum	112 A 160 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic • minimum • maximum	1 s 1 s
adjustable response value setting current (I _i) / for I-tripping • minimum • maximum	800 A 1 600 A
adjustable setting current (I _{nN}) / for N-tripping • minimum • maximum	160 A 160 A
design of the N-conductor protection	100%
product function / grounding protection	No
Mechanical Design	
product component • undervoltage release • voltage trigger • trip indicator	No No No
height [in]	6.22 in
height	158 mm
width [in]	5.51 in
width	140 mm
depth [in]	2.76 in
depth	70 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	13 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	25 x 8 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
Accessories	
product extension / optional / motor drive	Yes

Environmental conditions		
protection class IP / on the front	IP40	
ambient temperature		
- during operation / minimum - during operation / maximum - during storage / minimum - during storage / maximum	-25 °C 70 °C -40 °C 80 °C	
Environmental footprint		
global warming potential [CO2 eq] / total	285.47 kg	
global warming potential [CO2 eq] / during manufacturing	6.87 kg	
global warming potential [CO2 eq] / during operation	279 kg	
global warming potential [CO2 eq] / after end of life	-0.78 kg	
reference code / according to IEC 81346-2	Q	
Approvals / Certificates		
General Product Approval		
 CCC   EG-Konf. Confirmation  VDE Miscellaneous		
General Product Approval	EMV	Test Certificates
   RCM Special Test Certificate Type Test Certificates/Test Report Miscellaneous		
Maritime application		other
 ABS  BUREAU VERITAS  DNV  LRS  RMRS  产品合格 QC PASS		
other	Environment	
Confirmation Miscellaneous  Environmental Confirmations Environmental Confirmations		

Further information
Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875 Information for data generation and storage https://support.industry.siemens.com/cs/ww/en/view/109995012 Information- and Downloadcenter (Catalogs, Brochures,...) https://www.siemens.com/lowvoltage/catalogs Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1216-6GF42-0AA0 Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3VA1216-6GF42-0AA0 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1216-6GF42-0AA0 CAX-Online-Generator https://www.siemens.com/cax Tender specifications https://www.siemens.com/specifications



