

circuit breaker 3VA1 IEC frame 630 breaking capacity class M
Icu=55kA @ 415V 3-pole, starter protection TM120M, AM, In=500A
without overload protection short-circuit protection li=8...16 x In nut
keeper kit



Model	
Product brand name	SETRON
Product designation	Molded case circuit breaker
Product version	Starter protection
Design of the overcurrent release	TM120M
Protective function of the overcurrent release	I
Number of poles	3

General technical data	
Rated insulation voltage Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
Power loss [W] / maximum	120 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	40 W
Latching - endurance	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
• Phase failure detection	No
• other measurement function	No
Net weight	3.9 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	M
Maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 500 V	36 kA
• at 690 V	7 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 500 V	36 kA
• at 690 V	5 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	187 kA
• at 415 V	121 kA
• at 500 V	76 kA
• at 690 V	11.9 kA

Adjustable parameters

Adjustable response value current / I _i min.	2 500 A
Adjustable response value current / I _i max.	5 000 A
Ground fault protection can be switched ON/OFF	No
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No

Mechanical Design	
Height [in]	9.8 in
Height	248 mm
Width [in]	5.4 in
Width	138 mm
Depth [in]	4.3 in
Depth	110 mm
Connections	
Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	lug terminal
Type of connectable conductor cross-section, connection screw, width x thickness , min.	20 x 1
Type of connectable conductor cross-section, connection screw, width x thickness , max.	35 x 10
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	 EG-Konf.

[Miscellaneous](#)

[Miscellaneous](#)

Shipping Approval	other
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LRS

[Confirmation](#)

[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=3VA1450-5MH32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1450-5MH32-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1450-5MH32-0AA0

CAX-Online-Generator

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

Tender specifications

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



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