



circuit breaker 3VA1 IEC frame 1000 breaking capacity class M Icu=55kA @ 415V 4-pole, line protection TM240, ATAM, In=800A overload protection Ir=560A...800A short-circuit protection Ii=5...10 x In N conductor unprotected 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	1 000 V
power loss [W] / maximum	240 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	80 W
mechanical service life (switching cycles) / typical	10 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 600
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	3 200
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	1 000 A
Courant permanent assigné Iu	800 A
operational current	
• at 40 °C	800 A
• at 45 °C	800 A
• at 50 °C	800 A
• at 55 °C	780 A
• at 60 °C	761 A
• at 65 °C	741 A
• at 70 °C	722 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
breaking capacity maximum short-circuit current (Icu)	

<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	85 kA		
<ul style="list-style-type: none"> • at 415 V • at 440 V • at 500 V • at 690 V 	55 kA		
<ul style="list-style-type: none"> • at 440 V • at 500 V • at 690 V 	55 kA		
<ul style="list-style-type: none"> • at 500 V • at 690 V 	36 kA		
<ul style="list-style-type: none"> • at 690 V 	25 kA		
breaking capacity operating short-circuit current (Ics)			
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	85 kA		
<ul style="list-style-type: none"> • at 415 V • at 440 V • at 500 V • at 690 V 	55 kA		
<ul style="list-style-type: none"> • at 440 V • at 500 V • at 690 V 	55 kA		
<ul style="list-style-type: none"> • at 500 V • at 690 V 	36 kA		
<ul style="list-style-type: none"> • at 690 V 	19 kA		
short-circuit current making capacity (Icm)			
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	187 kA		
<ul style="list-style-type: none"> • at 415 V • at 440 V • at 500 V • at 690 V 	121 kA		
<ul style="list-style-type: none"> • at 440 V • at 500 V • at 690 V 	121 kA		
<ul style="list-style-type: none"> • at 500 V • at 690 V 	76 kA		
<ul style="list-style-type: none"> • at 690 V 	53 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.	560 A		
Adjustable response value current / I _g min.	800 A		
Adjustable response value current / I _i min.	4 000 A		
Adjustable response value current / I _i max.	8 000 A		
design of the N-conductor protection	Without		
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No		
Mechanical Design			
height [in]	12.6 in		
Height	320 mm		
width [in]	11 in		
Width	280 mm		
depth [in]	4.7 in		
depth	120 mm		
Connections			
arrangement of electrical connectors / for main current circuit	Front terminal		
Type of connectable conductor cross-section, connection screw, width x thickness , min.	20 x 4 mm		
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			
<ul style="list-style-type: none"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum 	-25 °C		
	70 °C		
	-40 °C		
	80 °C		
Certificates			
reference code / acc. to IEC 81346-2	Q		
General Product Approval	EMC	Declaration of Conformity	



[Miscellaneous](#)



EG-Konf.

Test Certificates				Shipping Approval	other
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[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Miscellaneous](#)



[Manufacturer Declaration](#)

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=3VA1580-5EF42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1580-5EF42-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1580-5EF42-0AA0

Tender specifications

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



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