



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	
Rated insulation voltage 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
Rated continuous current I _u	800 A
Operating 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
Maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA
• at 690 V	25 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA
• at 690 V	19 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	187 kA
• at 415 V	121 kA
• at 440 V	121 kA
• at 500 V	76 kA
• 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
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Accessories

Product extension / optional / motor drive	Yes
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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
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General Product Approval	EMC	Declaration of Conformity	Test Certificates
 VDE	 EAC	 RCM	 EG-Konf.

[Miscellaneous](#)

[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=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, ...)

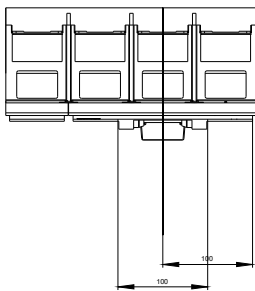
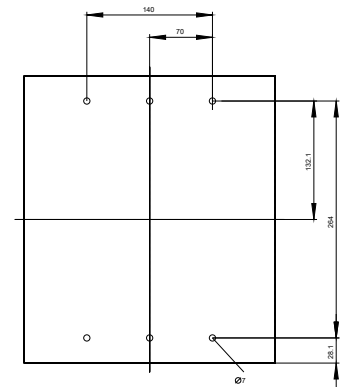
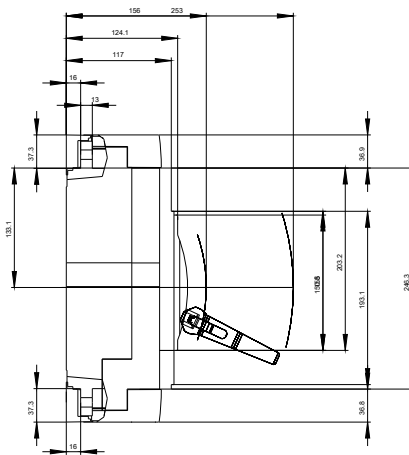
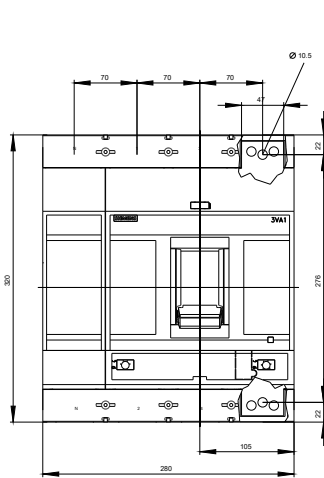
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1580-5EF42-0AA0

CAX-Online-Generator

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

Tender specifications

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





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