

circuit breaker 3VA5 UL frame 800 breaking capacity class M 35kA @ 480 V 4-pole, line protection TM230, FTAM, In=800A overload protection Ir=800A fixed short circuit protection li=5...10 x In



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	MMAS
Product version	System protection
Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	TM230
Protective function of the overcurrent release	LI
Number of poles	4

General technical data	
Rated insulation voltage U_i	1 000 V
Max. rated operational voltage U_e with AC 50/60Hz	600 V
Max. rated operational voltage U_e with DC	600 V
Power loss [W] / maximum	210 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	70 W
Mechanical service life (switching cycles) / typical	10 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	5 800
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	5 800
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	4 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	
• communication function	No
• other measurement function	No

Current

Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	800 A
Rated continuous current I _u	800 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 690 V	25 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	19 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	50 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

Switching capacity according to UL 489

Breaking capacity current	
• at 240 V	85 kA
• at 480 V	35 kA
• at 600 V	18 kA

Adjustable parameters

Adjustable response value current / I _r min.	800 A
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Adjustable response value current / I _r max.	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	328 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 connection
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Auxiliary circuit

Number of CO contacts / for auxiliary contacts	0
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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 	<ul style="list-style-type: none"> -25 °C 70 °C -40 °C 80 °C

Certificates

Reference code / acc. to DIN EN 81346-2	Q
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No

General Product Approval

[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=3VA5580-5EC42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5580-5EC42-0AA0>

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

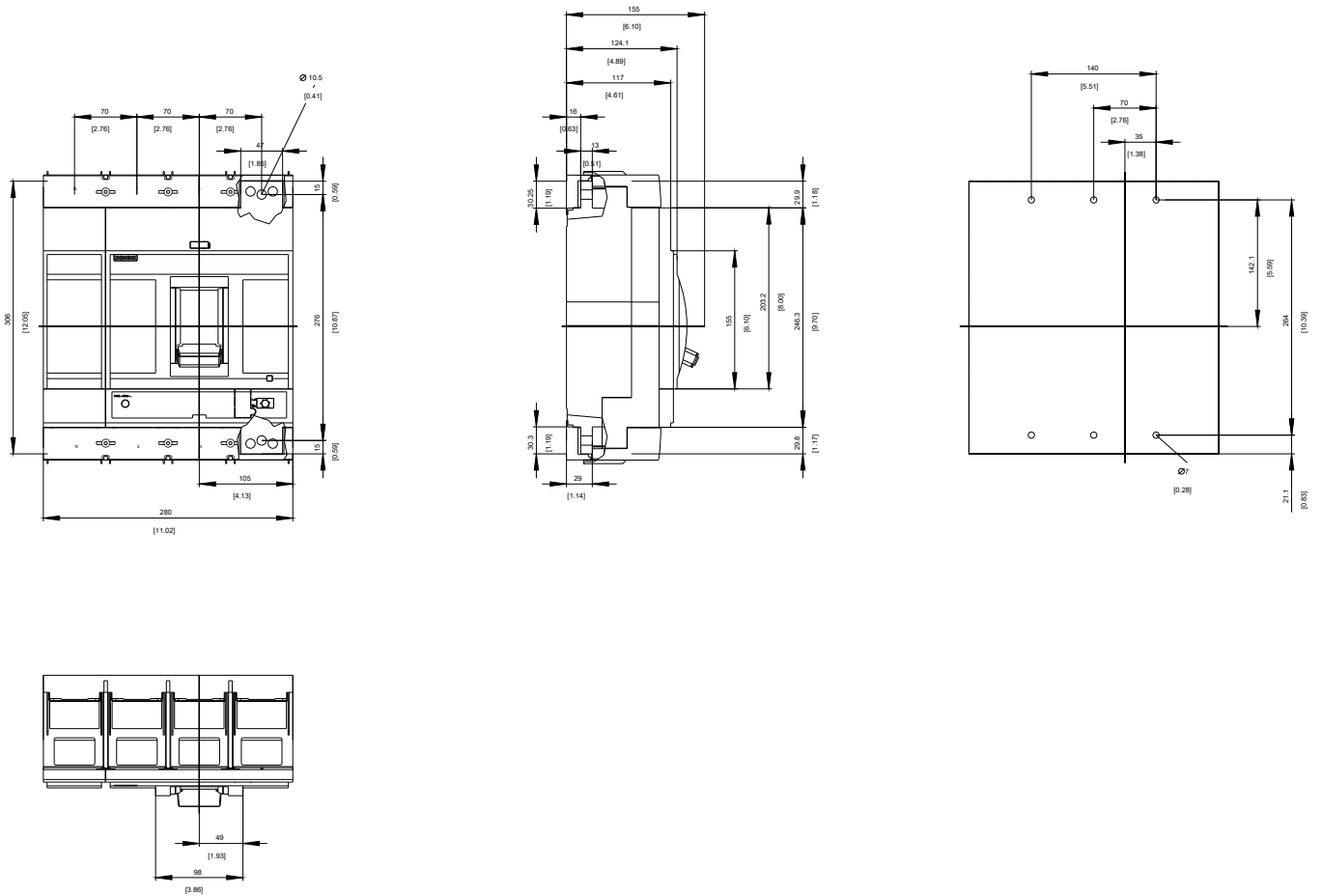
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5580-5EC42-0AA0

CAX-Online-Generator

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

Tender specifications

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



last modified:

07/06/2020