

Circuit breaker 3VA5 UL Frame 250 Breaking capacity class M 35kA @ 480 V 3-pole, line protection TM210, FTFM, In=45A Overload protection Ir=40A fixed Short-circuit protection li=10 x In UL489 SB (naval), 50 deg. Cel Without connection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	MFAM
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	TM210
Protective function of the overcurrent release	LI
Number of poles	3
General technical data	
Power loss [W] / maximum	22.2 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	7.4 W
Mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000

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	8 000
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	250 A
Rated continuous current I <sub>u</sub>	45 A

### Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	M
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 Y/347 V	18 kA

### Adjustable parameters

Adjustable response value current / I <sub>r</sub> min.	45 A
Adjustable response value current / I <sub>r</sub> max.	45 A
Adjustable response value current / I <sub>i</sub> min.	450 A
Adjustable response value current / I <sub>i</sub> max.	450 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

### Mechanical Design

Height [in]	7.3 in
Height	185 mm
Width [in]	4.1 in
Width	105 mm
Depth [in]	3.3 in
Depth	83 mm

### Connections

Arrangement of electrical connectors / for main current circuit	Without connection
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Type of electrical connection / for main current circuit	Without
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### 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	
<ul style="list-style-type: none"> <li>during operation / minimum</li> </ul>	-25 °C
<ul style="list-style-type: none"> <li>during operation / maximum</li> </ul>	70 °C
<ul style="list-style-type: none"> <li>during storage / minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>during storage / maximum</li> </ul>	80 °C

### Certificates

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

<b>General Product Approval</b>	<b>EMC</b>
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[Miscellaneous](#)



<b>Shipping Approval</b>	<b>other</b>
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[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=3VA5245-5ED31-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5245-5ED31-1AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5245-5ED31-1AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5245-5ED31-1AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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