

circuit breaker 3VA5 UL frame 250 breaking capacity class H 65kA @ 480V 3-pole, line protection TM210, FTFM,  $I_n=110A$  overload protection  $I_r=110A$  fixed short-circuit protection  $I_i=10 \times I_n$  without connection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL-File	HFAS
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	
Rated insulation voltage $U_i$	800 V
Max. rated operational voltage $U_e$ with AC 50/60Hz	690 V
Max. rated operational voltage $U_e$ with DC	750 V
Power loss [W] / maximum	22.6 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	7.53 W
Latching - endurance	15 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
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

## Electricity

Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	250 A
Rated continuous current I <sub>u</sub>	110 A
Operating current	
• at 40 °C	110 A
• at 45 °C	107 A
• at 50 °C	104 A
• at 55 °C	100 A
• at 60 °C	97 A
• at 65 °C	94 A
• at 70 °C	91 A

## Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	H
Maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	100 kA
• at 415 V	70 kA
• at 690 V	10 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	100 kA
• at 415 V	70 kA
• at 690 V	10 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	220 kA
• at 415 V	154 kA
• at 690 V	17 kA
Design of short-circuit protection	For breaking capacity values in DC networks, see the 3VA Molded Case Circuit Breaker Manual; link available under Service & Support in the last chapter

### Switching capacity according to UL 489

Breaking capacity current	
• at 240 V	100 kA
• at 480 V	65 kA
• at 600 V	25 kA

### Adjustable parameters

Ground fault protection / tripping switchable / I2t=ON/OFF	No
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### 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
Type of electrical connection / for main current circuit	Without

### 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
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No

## General Product Approval



CCC



CSA



UL



UL



VDE



EMC

Declaration of  
Conformity

Shipping Ap-  
proval

other



RCM



EG-Konf.



ABS

[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=3VA5211-6ED31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5211-6ED31-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5211-6ED31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5211-6ED31-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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