

circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480V 4-pole, line protection TM230, FTAM,  $I_n=100A$  overload protection  $I_r=100A$  fixed short-circuit protection  $I_i=5...10 \times I_n$  N conductor unprotected without connection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL-File	SEAS
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 $U_i$	800 V
Max. rated operational voltage $U_e$ with AC 50/60Hz	690 V
Max. rated operational voltage $U_e$ with DC	600 V
Power loss [W] / maximum	22.8 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	7.6 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 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

### Electricity

Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	125 A
Rated continuous current I <sub>u</sub>	100 A
Operating current	
• at 40 °C	100 A
• at 45 °C	97.8 A
• at 50 °C	95.7 A
• at 55 °C	93.7 A
• at 60 °C	91.7 A
• at 65 °C	89.9 A
• at 70 °C	88.1 A

### Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	S
Maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	55 kA
• at 415 V	36 kA
• at 690 V	5 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	55 kA
• at 415 V	36 kA
• at 690 V	5 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	121 kA
• at 415 V	76 kA
• at 690 V	7.5 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	
<ul style="list-style-type: none"> <li>• at 240 V</li> </ul>	65 kA
<ul style="list-style-type: none"> <li>• at 480 V</li> </ul>	25 kA
<ul style="list-style-type: none"> <li>• at 600 Y/347 V</li> </ul>	14 kA

### Adjustable parameters

Design of the N-conductor protection	Without
Ground fault protection / tripping switchable / I2t=ON/OFF	No

### Mechanical Design

Height [in]	5.5 in
Height	140 mm
Width [in]	4 in
Width	101.6 mm
Depth [in]	3 in
Depth	76.5 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
--	---

### Accessories

Product extension / optional / motor drive	Yes
--	-----

### 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	No

General Product Approval	EMC	Shipping Approval	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=3VA5110-4EC41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5110-4EC41-0AA0>

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

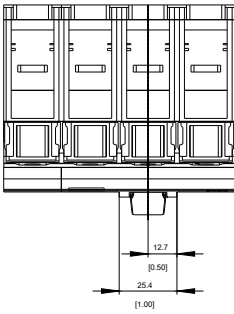
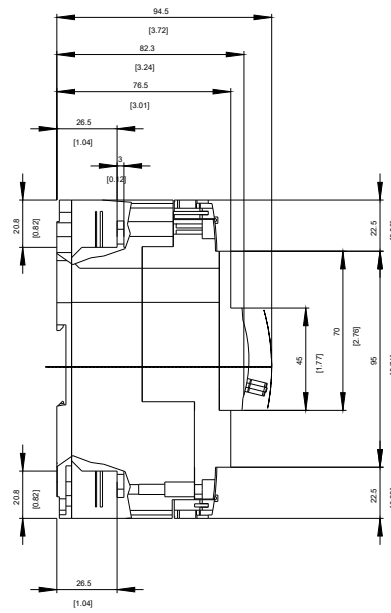
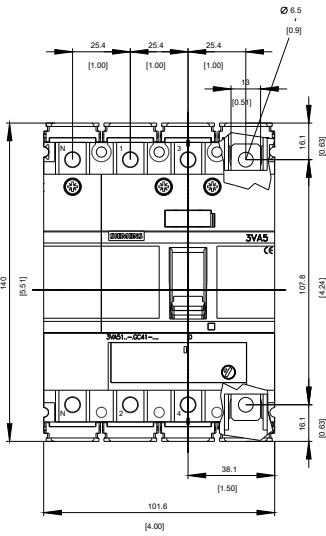
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5110-4EC41-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5110-4EC41-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



**last modified:**

03/12/2019