



circuit breaker 3VA5 UL Frame 125 breaking capacity class S 25 kA @ 480 V 2-pole, line protection TM210, FTFM,  $I_n=40$  A overload protection  $I_r=40$  A permanently set short-circuit protection  $I_i=10 \times I_n$  nut keeper kit on two sides

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	SEAS
design of the product	System protection
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HID Type)	No
design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)	No
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	2
General technical data	
insulation voltage / rated value	500 V
operating voltage / at DC / rated value	250 V
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	7.46 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	3.73 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
electrical endurance (operating cycles) / at 480 V	8 000
electrical endurance (operating cycles) / at 600 V	4 000
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
product function	
• communication function	No
• other measurement function	No
Net Weight	0.669 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	40 A
• at 45 °C	39 A
• at 50 °C	39 A
• at 55 °C	38 A
• at 60 °C	37 A
• at 65 °C	37 A
• at 70 °C	36 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> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li></ul>	55 kA 36 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li></ul>	55 kA 36 kA
short-circuit current making capacity (I <sub>cm</sub> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li></ul>	121 kA 75.6 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**

current breaking capacity <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 480 V</li><li>• at 600 Y/347 V</li></ul>	65 kA 25 kA 14 kA
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**Adjustable parameters**

adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sup>2</sup> t characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	40 A 40 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sup>2</sup> t characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	1 s 1 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	400 A 400 A
adjustable setting current (I <sub>n</sub> ) / for N-tripping <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	0 A 0 A
product function / grounding protection	No

**Mechanical Design**

product component <ul style="list-style-type: none"><li>• undervoltage release</li><li>• voltage trigger</li><li>• trip indicator</li></ul>	No No No
height [in]	5.51 in
height	140 mm
width [in]	2 in
width	50.8 mm
depth [in]	3.01 in
depth	76.5 mm

**Connections**

arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6.5 mm

**Auxiliary circuit**

number of CO contacts / for auxiliary contacts	0
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**Accessories**

product extension / optional / motor drive	No
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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><li>• during operation / maximum</li></ul>	-25 °C 70 °C

- during storage / minimum
- during storage / maximum

-40 °C

80 °C

reference code / according to IEC 81346-2

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## Approvals / Certificates

### General Product Approval



[Confirmation](#)



[Miscellaneous](#)

General Product Approval	EMV	Test Certificates	Marine / Shipping	other
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



[Miscellaneous](#)

other	Environment
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[Confirmation](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

## Further information

### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

### 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=3VA5140-4ED22-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5140-4ED22-0AA0>

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

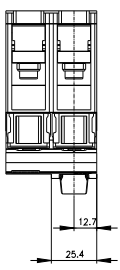
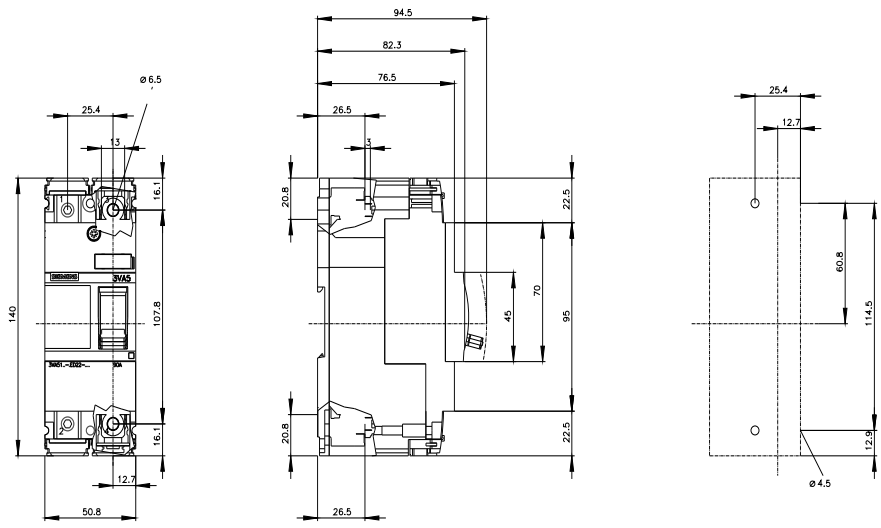
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5140-4ED22-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5140-4ED22-0AA0)

### CAX-Online-Generator

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

### Tender specifications

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



**CB**



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