



circuit breaker 3VA5 UL Frame 125 breaking capacity class S 25 kA @ 277 V 1-pole, line protection TM210, FTFM,  $I_n=100$  A overload protection  $I_r=100$  A permanently set short-circuit protection  $I_i=10 \times I_n$  terminal connection

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	1
General technical data	
insulation voltage / rated value	500 V
operating voltage / at DC / rated value	125 V
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	7.6 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	7.6 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	0.541 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	100 A
• at 45 °C	98 A
• at 50 °C	95 A
• at 55 °C	93 A
• at 60 °C	91 A
• at 65 °C	89 A
• at 70 °C	87 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	25 kA
• at 415 V	5 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	25 kA
• at 415 V	5 kA
short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	52.5 kA
• at 415 V	7.5 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	
• at 120 V	65 kA
• at 277 V	25 kA
• at 347 V	14 kA

**Adjustable parameters**

adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sup>2</sup> t characteristic	
• minimum	100 A
• maximum	100 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sup>2</sup> t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping	
• minimum	1 000 A
• maximum	1 000 A
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
• minimum	0 A
• maximum	0 A
product function / grounding protection	No

**Mechanical Design**

product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	5.51 in
height	140 mm
width [in]	2 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (8 AWG - 3/0)
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	circular conductor terminal on both sides

**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	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C

## Approvals / Certificates

## General Product Approval


[Confirmation](#)


## General Product Approval

## EMV

## Marine / Shipping


[Miscellaneous](#)


## Marine / Shipping

## other


[Miscellaneous](#)
[Confirmation](#)

## other

## Environment

[Miscellaneous](#)
[Environmental Con-  
firmations](#)

## 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=3VA5110-4ED56-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5110-4ED56-0AA0>

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

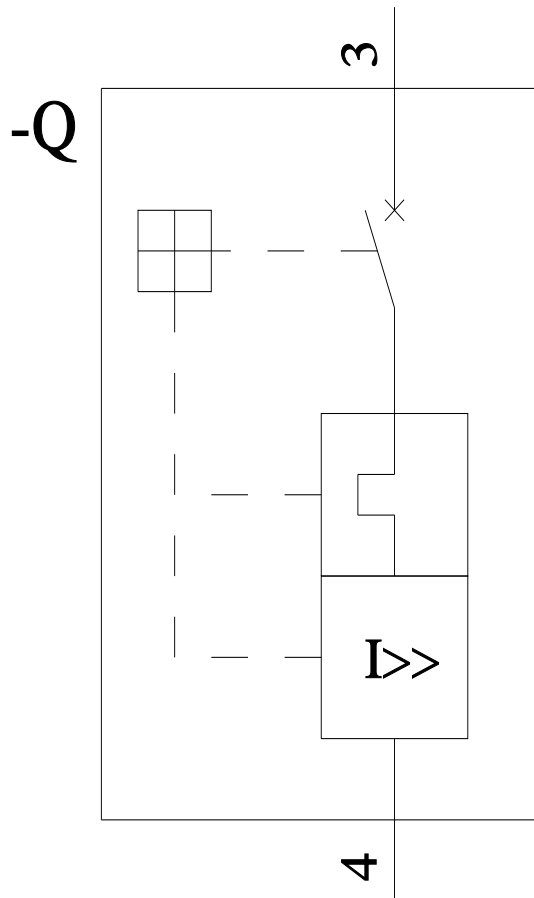
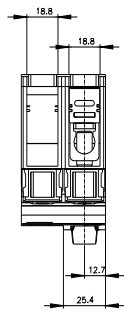
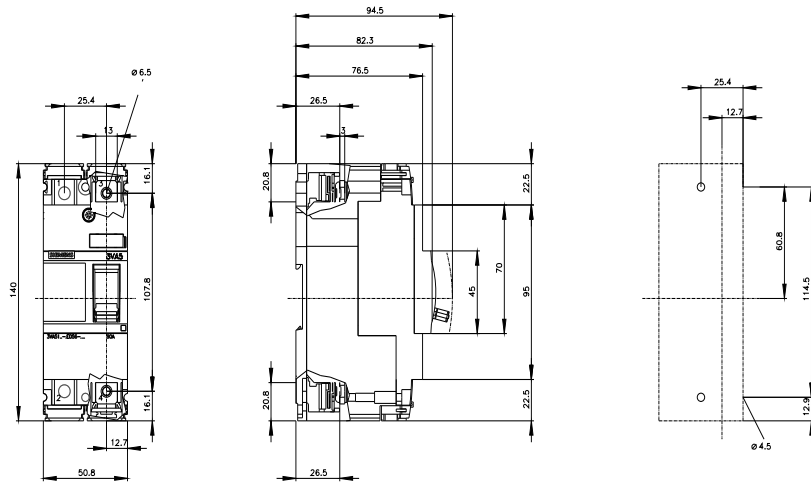
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5110-4ED56-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5110-4ED56-0AA0)

## CAx-Online-Generator

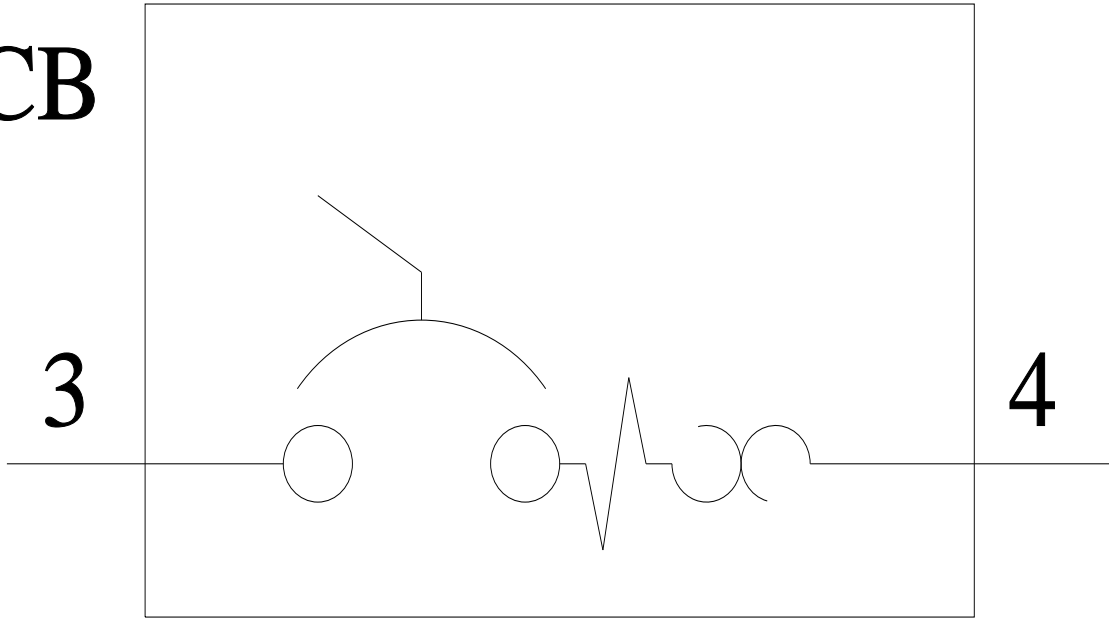
<http://www.siemens.com/cax>

## Tender specifications

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



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3/11/2024 

