



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 277 V 1-pole, line protection TM210, FTFM, In=20A overload protection Ir=20A fixed short-circuit protection li=15 x In UL489 SB (naval), 50 deg. cel. nut keeper kit on both sides

Model	
product brand name	SETRON
product designation	Molded-case circuit breaker
product designation / according to UL file	SEAM
Product version	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)	Yes
design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)	Yes
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	1
General technical data	
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	4.07 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4.07 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	8 000
electrical endurance (switching cycles) / at 600 V	4 000
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	without
product function	
• communication function	No
• other measurement function	No
Net Weight	0.404 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	20 A
• at 45 °C	20 A
• at 50 °C	19 A
• at 55 °C	19 A
• at 60 °C	19 A

<ul style="list-style-type: none"> <li>at 65 °C</li> <li>at 70 °C</li> </ul>	18 A 18 A	
<b>Switching capacity according to IEC 60947</b>		
switching capacity class of the circuit breaker	S	
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	
<b>Switching capacity according to UL 489</b>		
breaking capacity current		
<ul style="list-style-type: none"> <li>at 120 V</li> <li>at 277 V</li> <li>at 347 V</li> </ul>	65 kA 25 kA 14 kA	
<b>Adjustable parameters</b>		
Adjustable response value current / I <sub>g</sub> min.	20 A	
Adjustable response value current / I <sub>g</sub> min.	20 A	
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No	
<b>Mechanical Design</b>		
height [in]	5.51 in	
Height	140 mm	
width [in]	1 in	
Width	25.4 mm	
depth [in]	3.01 in	
depth	76.5 mm	
<b>Connections</b>		
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-section, connection screw, width x thickness , min.	12 x 1 mm	
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5 mm	
<b>Auxiliary circuit</b>		
product component		
<ul style="list-style-type: none"> <li>undervoltage release</li> <li>voltage trigger</li> <li>trip indicator</li> </ul>	No No No	
number of CO contacts / for auxiliary contacts	0	
<b>Accessories</b>		
product extension / optional / motor drive	No	
<b>Environmental conditions</b>		
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> <li>during storage / minimum</li> <li>during storage / maximum</li> </ul>	-25 °C 70 °C -40 °C 80 °C	
<b>Certificates</b>		
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes	
<b>General Product Approval</b>	<b>EMC</b>	<b>Marine / Shipping</b>

[Confirmation](#)



other

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalog>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3VA5120-4ED12-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5120-4ED12-1AA0>

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

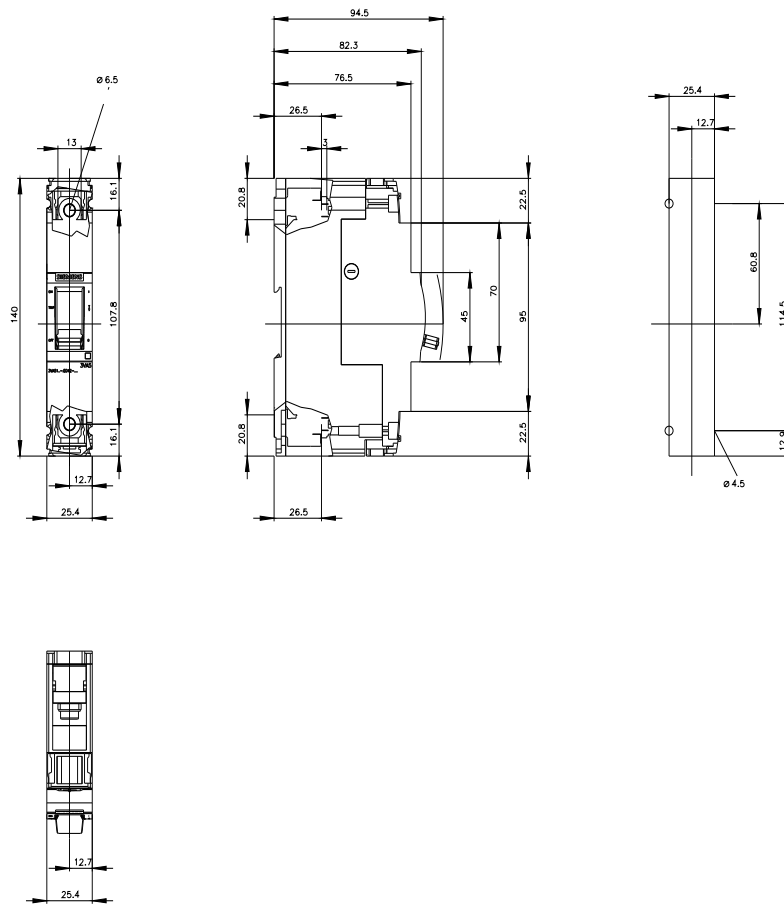
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA5120-4ED112-1AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5120-4ED12-1AA0)

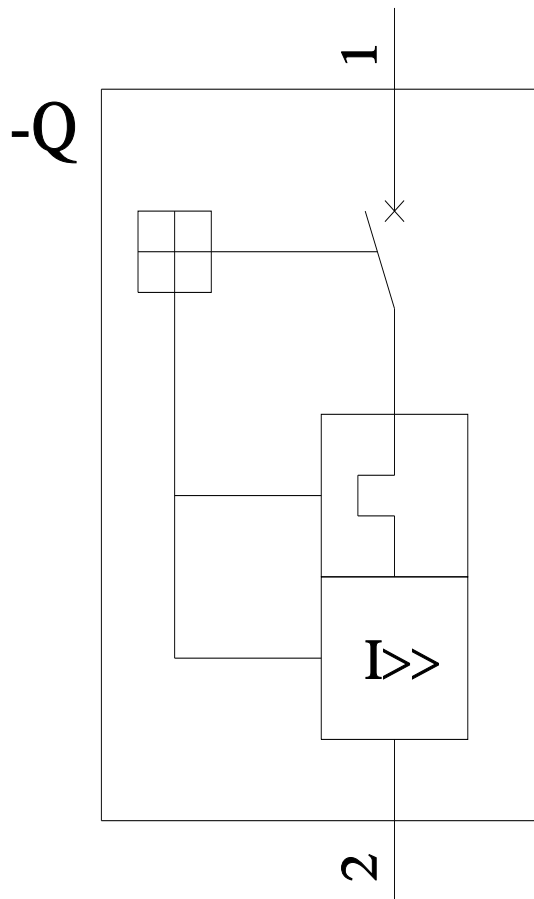
CAX-Online-Generator

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

Tender specifications

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





last modified:

7/14/2022 

