



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 277 V 1-pole, line protection TM210, FTFM, In=80A overload protection Ir=80A fixed short-circuit protection li=10 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)	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	
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	6.43 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	6.43 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	80 A
• at 45 °C	78 A
• at 50 °C	77 A
• at 55 °C	76 A
• at 60 °C	74 A

<ul style="list-style-type: none"> • at 65 °C • at 70 °C 	73 A 72 A		
Switching capacity according to IEC 60947			
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		
Switching capacity according to UL 489			
breaking capacity current			
<ul style="list-style-type: none"> • at 120 V • at 277 V • at 347 V 	65 kA 25 kA 14 kA		
Adjustable parameters			
Adjustable response value current / I _g min.	80 A		
Adjustable response value current / I _g min.	80 A		
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No		
Mechanical Design			
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		
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-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		
Auxiliary circuit			
product component			
<ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator 	No No No		
number of CO contacts / for auxiliary contacts	0		
Accessories			
product extension / optional / motor drive	No		
Environmental conditions			
protection class IP / on the front	IP40		
ambient temperature			
<ul style="list-style-type: none"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum 	-25 °C 70 °C -40 °C 80 °C		
Certificates			
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes		
General Product Approval		EMC	Marine / Shipping



[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=3VA5180-4ED12-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-4ED12-1AA0>

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

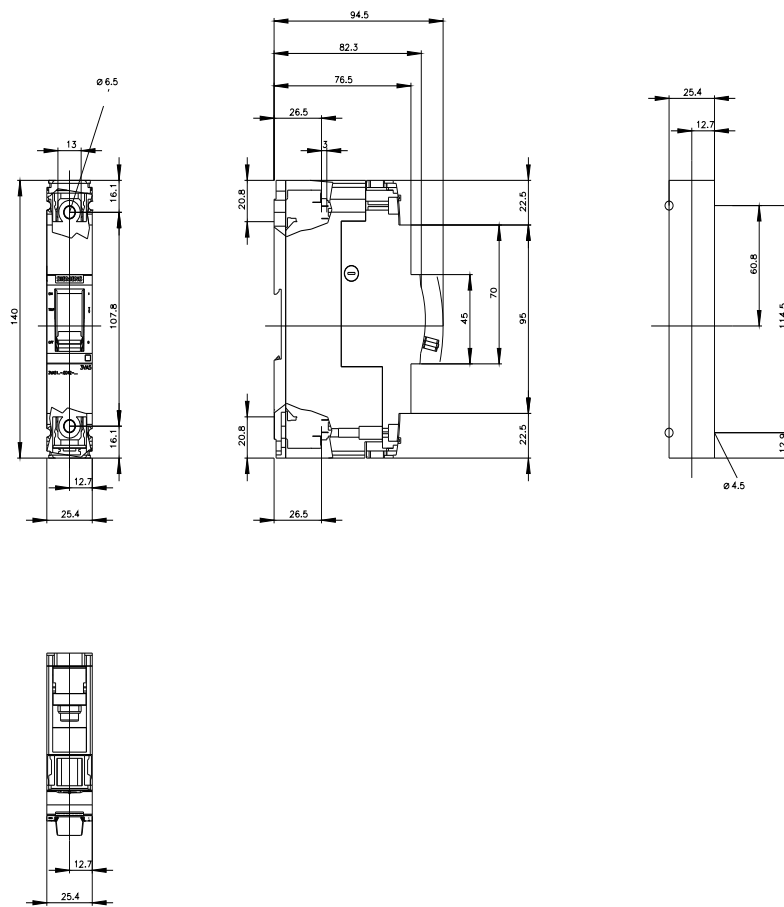
http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5180-4ED12-1AA0

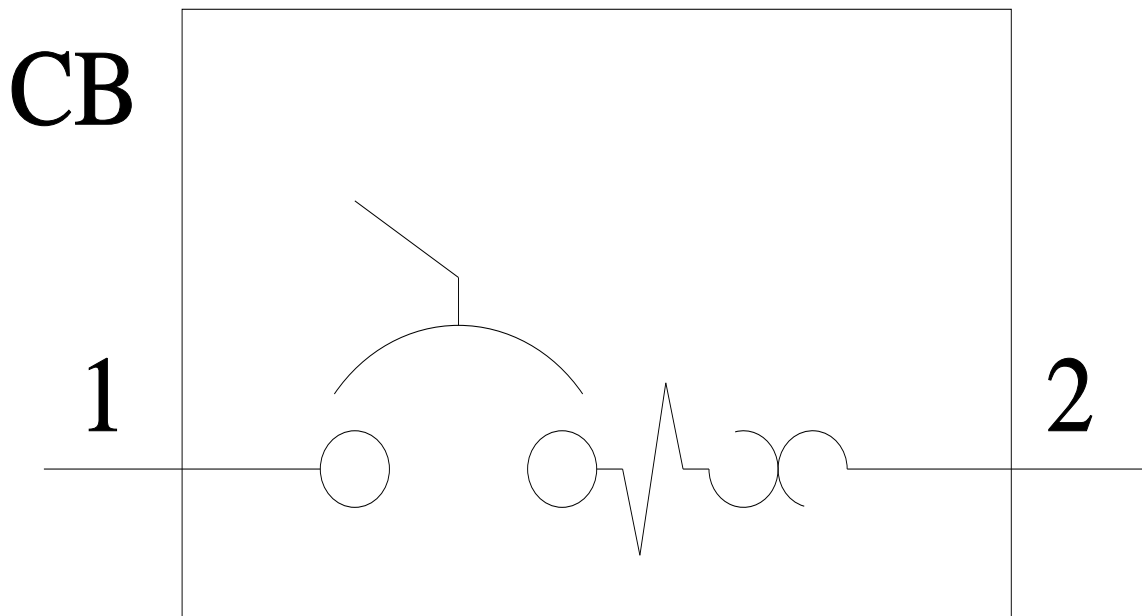
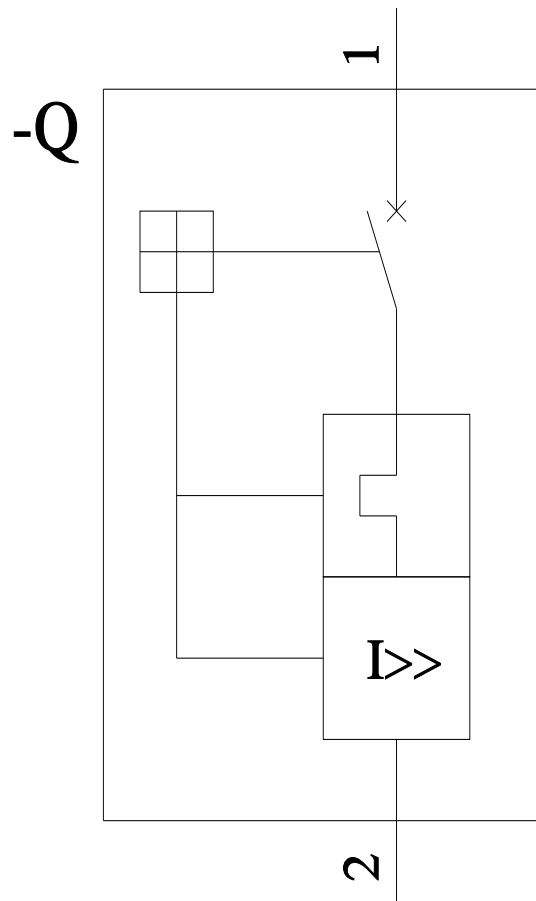
CAX-Online-Generator

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

Tender specifications

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





last modified:

7/15/2022

