



circuit breaker 3VA4 UL Frame 125 breaking capacity class S 25 kA @ 277 V 1-pole, line protection TM210, FTFM, In=80 A overload protection Ir=80 A permanently set short-circuit protection li=10 x In terminal connection

Model	
product brand name	SETRON
product designation	Molded-case circuit breaker
product designation / according to UL file	SEAB
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	
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	5.5 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	5.5 W
mechanical service life (operating cycles) / typical	15 000
electrical endurance (operating cycles) / at 480 V	8 000
electrical endurance (operating cycles) / at 600 V	4 000
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	0.426 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	75 A
• at 60 °C	74 A
• at 65 °C	72 A
• at 70 °C	70 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			
current breaking capacity			
• at 120 V		65 kA	
• at 277 V		25 kA	
• at 347 V		14 kA	
Adjustable parameters			
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic			
• minimum		1 s	
• maximum		1 s	
product function / grounding protection		No	
Mechanical Design			
product component			
• undervoltage release		No	
• voltage trigger		No	
• trip indicator		No	
height [in]		5.09 in	
height		129.4 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]		2.96 in	
depth		75.1 mm	
Connections			
arrangement of electrical connectors / for main current circuit		output side: circular conductor connection	
type of electrical connection / for main current circuit		Infeed side: Low tab	
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)		Tin	
Auxiliary circuit			
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			
• 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		EMV	other



[Miscellaneous](#)



[Miscellaneous](#)

other

Environment

[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=3VA4180-4ED54-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA4180-4ED54-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA4180-4ED54-0AA0

CAX-Online-Generator

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

Tender specifications

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





