SIEMENS

Data sheet

3VA5180-4ED21-1AA0



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480V 2-pole, line protection TM210, FTFM, In=80A overload protection Ir=80A fixed short-circuit protection Ii=10 x In UL 489 SB (naval), 50° C without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	SEAM
Product version	System protection
design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	2
General technical data	_
power loss [W] / maximum	11 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	5.5 W
mechanical service life (switching cycles) / typical	15 000
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/retrofittable	No
ground-fault monitoring version	Without
product function	
 communication function 	No
 other measurement function 	No
Current	_
marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	125 A
Courant permanent assigné lu	80 A
operational current	
● at 40 °C	80 A
● at 45 °C	80 A
● at 50 °C	80 A
● at 55 °C	77.7 A
● at 60 °C	76.2 A
● at 65 °C	74.8 A
• at 70 °C	73.4 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		
• at 240 V	65 kA	
• at 480 V	25 kA	
• at 600 Y/347 V	14 kA	
Adjustable parameters		
Adjustable response value current / lg min.	80 A	
Adjustable response value current / Ig min.	80 A	
Adjustable response value current / li min.	800 A	
Adjustable response value current / li max.	800 A	
Ground fault protection / tripping switchable / I2t=ON/OFF	No	
Mechanical Design		
height [in]	5.5 in	
Height		
width [in]	2 in	
Width	50.8 mm	
depth [in]	3 in	
depth	76.5 mm	
Connections		
arrangement of electrical connectors / for main current circuit	Without connection	
type of electrical connection / for main current circuit	Without	
Auxiliary circuit		
number of CO contacts / for auxiliary contacts	0	
Accessories		
product extension / optional / motor drive	Yes	
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	
Certificates		
reference code / acc. to IEC 81346-2	Q	
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes	
General Product Approval		
) UL Miscellaneous	
General Product Approval EMC Declaration Conformity		
	Miscellaneous ABS ABS	



Miscellaneous

Further information

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=3VA5180-4ED21-1AA0

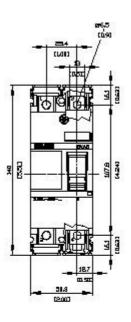
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

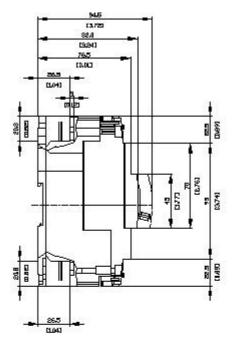
https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-4ED21-1AA0

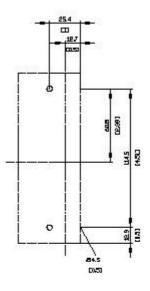
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

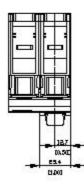
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5180-4ED21-1AA0

Tender specifications http://www.siemens.com/specifications









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