



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480 V 2-pole, line protection TM210, FTFM, In=80A overload protection Ir=80A fixed short-circuit protection li=10 x In nut keeper kit on both sides

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	SEAS
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	
rated insulation voltage Ui	600 V
Max. rated operational voltage Ue with DC	250 V
power loss [W] / maximum	12.86 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
product function	
• communication function	No
• other measurement function	No
Current	
marking / acc. to UL 489 / 100%-rated breaker	No
operational current	
• at 45 °C	78 A
• at 50 °C	77 A
• at 55 °C	76 A
• at 60 °C	74 A
• at 65 °C	73 A
• at 70 °C	72 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	S

breaking capacity maximum short-circuit current (Icu) • at 240 V • at 415 V		55 kA 36 kA
breaking capacity operating short-circuit current (Ics) • at 240 V • at 415 V		55 kA 36 kA
short-circuit current making capacity (Icm) • at 240 V • at 415 V		121 kA 75.6 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		
breaking capacity current • at 240 V • at 480 V • at 600 Y/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 ₂ t=ON/OFF		No
Mechanical Design		
height [in]		5.51 in
Height		140 mm
width [in]		2 in
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 connectable conductor cross-section, connection screw, width x thickness , max.		17 x 6.5 mm
Auxiliary circuit		
product component • 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 • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum		-25 °C 70 °C -40 °C 80 °C
Certificates		
reference code / acc. to IEC 81346-2		Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB		No
General Product Approval	EMC	other



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=3VA5180-4ED22-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-4ED22-0AA0>

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

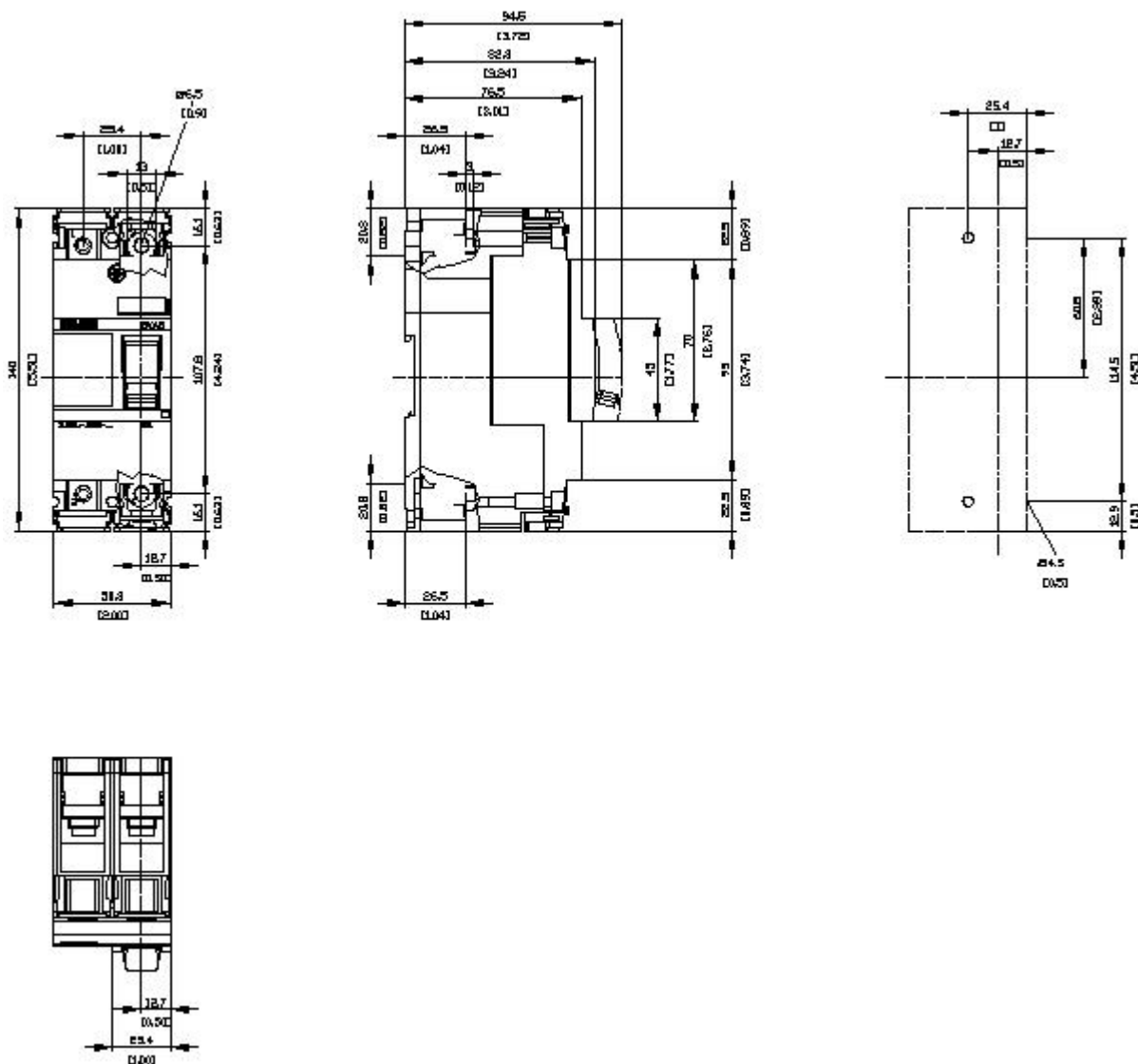
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5180-4ED22-0AA0

CAX-Online-Generator

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

Tender specifications

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



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