



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480V  
3-pole, line protection TM210, FTFM,  $I_n=20A$  overload protection  $I_r=20A$   
fixed short-circuit protection  $I_i=15 \times I_n$  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	3
General technical data	
power loss [W] / maximum	12 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4 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/retrofitable	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 I <sub>u</sub>	20 A
operational current	
• at 40 °C	20 A
• at 45 °C	20 A
• at 50 °C	20 A
• at 55 °C	19.3 A
• at 60 °C	19.1 A
• at 65 °C	18.8 A
• at 70 °C	18.5 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 / I <sub>g</sub> min.	20 A
Adjustable response value current / I <sub>g</sub> min.	20 A
Adjustable response value current / I <sub>i</sub> min.	300 A
Adjustable response value current / I <sub>i</sub> max.	300 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No
Mechanical Design	
height [in]	5.5 in
Height	140 mm
width [in]	3 in
Width	76.2 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



[Miscellaneous](#)

General Product Approval	EMC	Declaration of Conformity	Test Certificates	Shipping Approval
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[Miscellaneous](#)





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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?mfb=3VA5120-4ED31-1AA0>

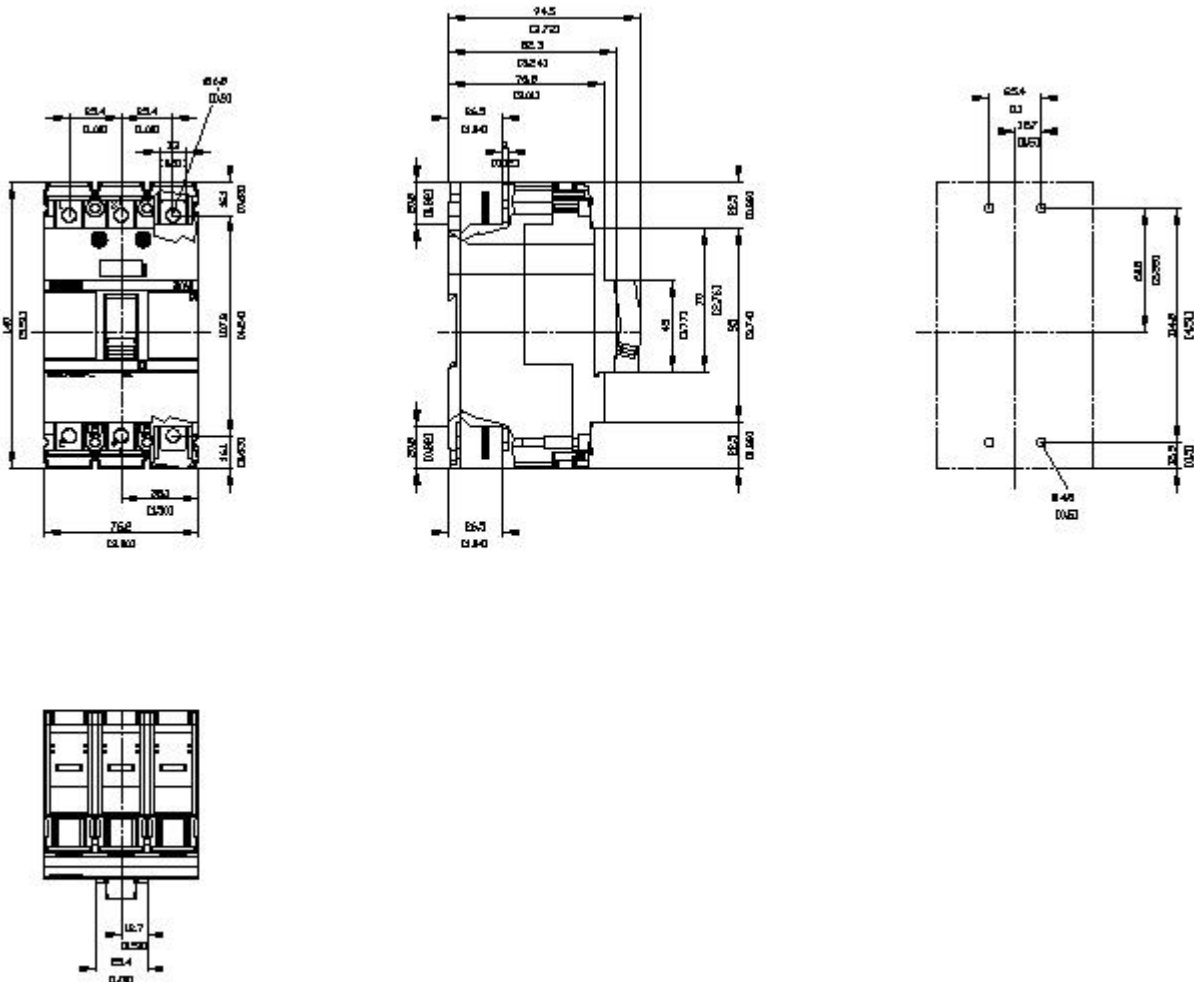
Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5120-4ED31-1AA0>

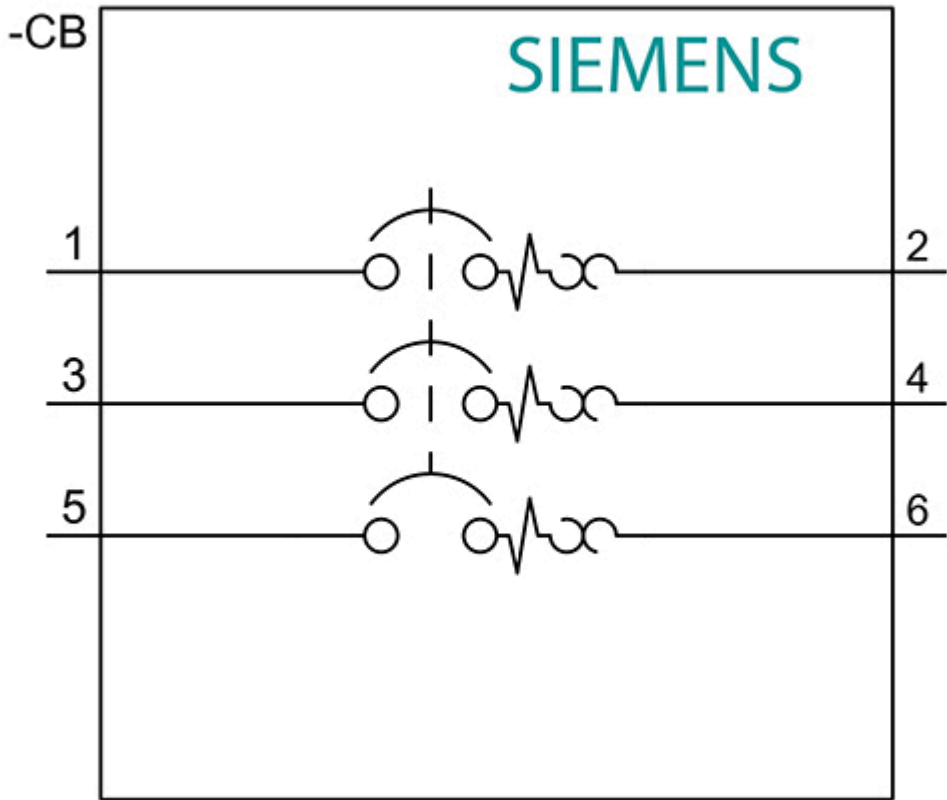
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA5120-4ED31-1AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5120-4ED31-1AA0)

Tender specifications

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





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