



circuit breaker 3VA4 UL Frame 125 breaking capacity class S 25 kA @ 277 V 1-pole, line protection TM210, FTFM, $I_n=80$ A overload protection $I_r=80$ A permanently set short-circuit protection $I_i=10 \times I_n$ terminal connection

Model	
product brand name	SENTRON
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	480 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	
<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 delay time (tr) / for L-tripping / with I2t characteristic	
<ul style="list-style-type: none"> minimum maximum 	1 s 1 s
product function / grounding protection	No

Mechanical Design

product component	
<ul style="list-style-type: none"> undervoltage release voltage trigger trip indicator 	No No 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
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Accessories

product extension / optional / motor drive	No
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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

Approvals / Certificates

General Product Approval	EMV	other
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[Miscellaneous](#)



[Confirmation](#)

other	Environment
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[Miscellaneous](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://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, ...)

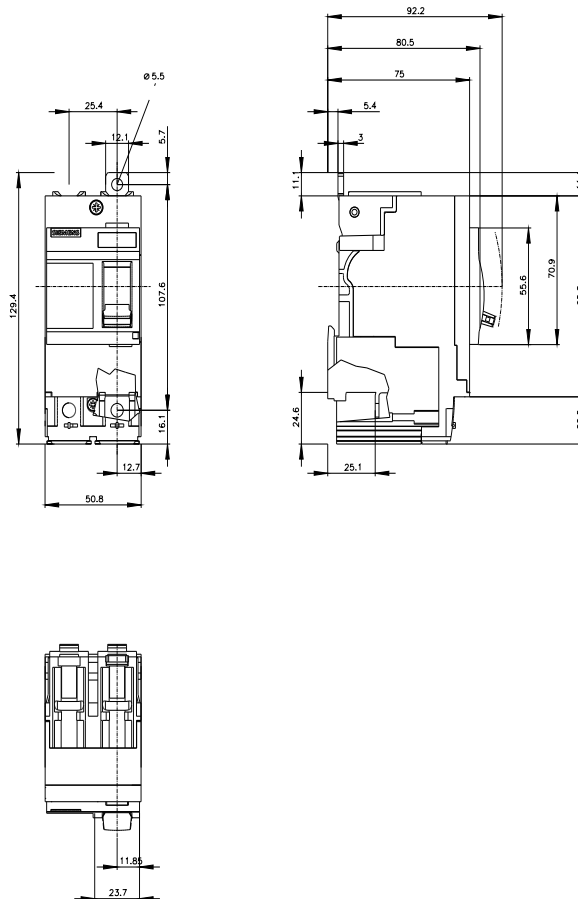
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA4180-4ED54-0AA0

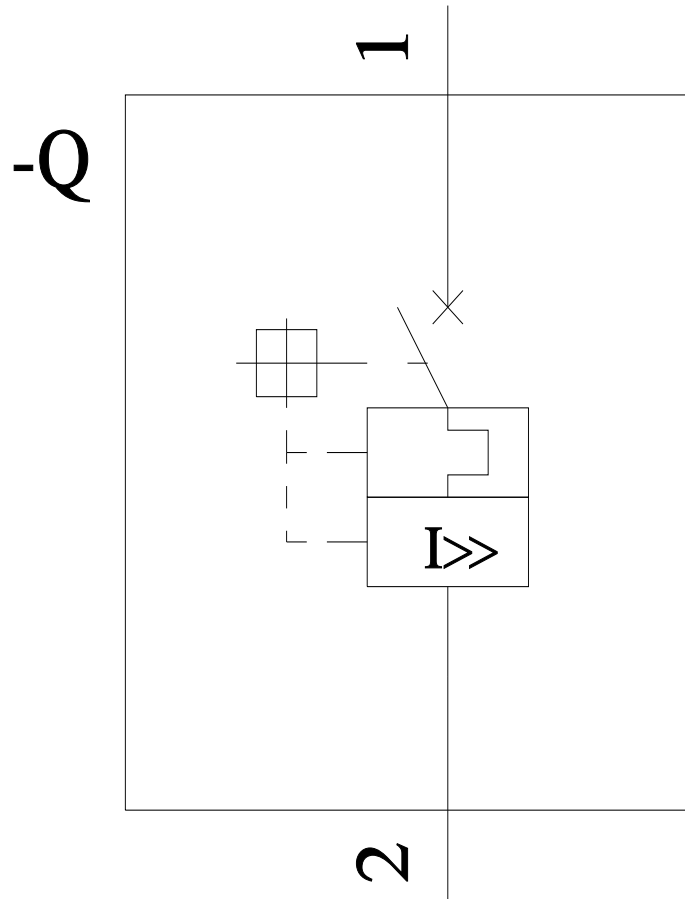
CAX-Online-Generator

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

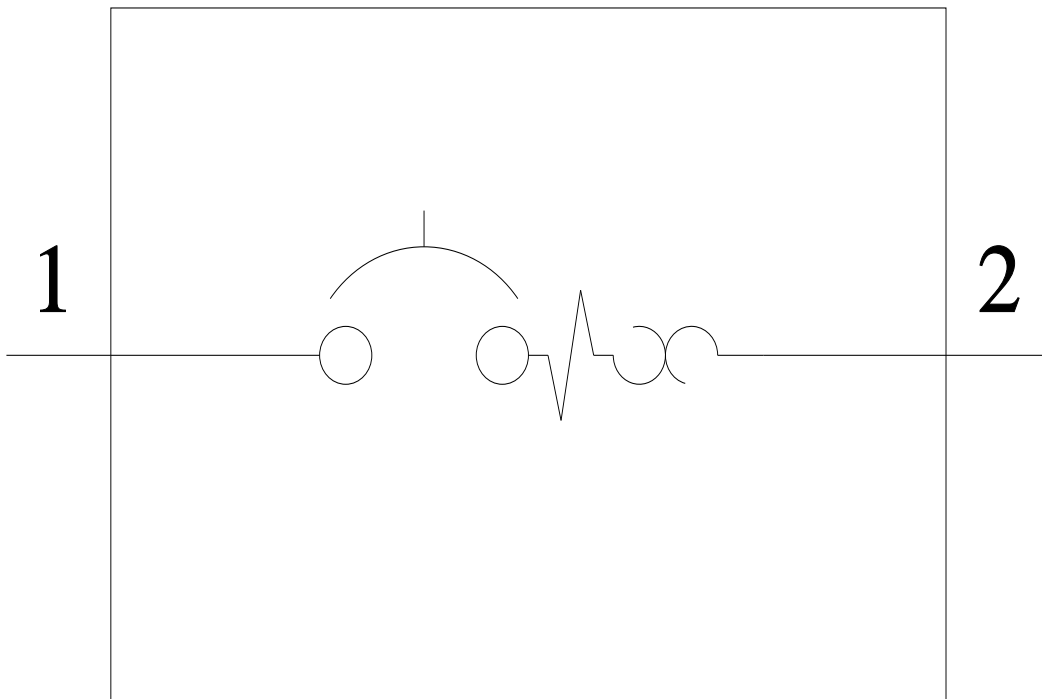
Tender specifications

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





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