



circuit breaker 3VA5 UL frame 125 breaking capacity class H 50kA @ 277 V 1-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	SETRON
product designation	Molded-case circuit breaker
product designation / according to UL file	H5EAS
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	
insulation voltage / rated value	500 V
operating voltage / at DC / rated value	125 V
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	6.43 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	6.43 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
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	0.407 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	76 A
• at 60 °C	74 A
• at 65 °C	73 A

• at 70 °C	72 A
<b>Switching capacity according to IEC 60947</b>	
switching capacity class of the circuit breaker	H
maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	55 kA
• at 415 V	5 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	55 kA
• at 415 V	5 kA
short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	121 kA
• at 415 V	7.5 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
<b>Switching capacity according to UL 489</b>	
current breaking capacity	
• at 120 V	100 kA
• at 277 V	50 kA
• at 347 V	18 kA
<b>Adjustable parameters</b>	
adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic	
• minimum	80 A
• maximum	80 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping	
• minimum	800 A
• maximum	800 A
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
• minimum	0 A
• maximum	0 A
adjustable current response value current / of the current-dependent overload release	80 ... 80 A
product function / grounding protection	No
<b>Mechanical Design</b>	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	5.51 in
height	140 mm
width [in]	1 in
width	25.4 mm
depth [in]	3.01 in
depth	76.5 mm
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6.5 mm
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / optional / motor drive	No
<b>Environmental conditions</b>	
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 / according to IEC 81346-2	Q
---	---

#### General Product Approval



[Confirmation](#)



[Miscellaneous](#)



EMC	Test Certificates	Marine / Shipping	other
-----	-------------------	-------------------	-------



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



[Miscellaneous](#)

[Confirmation](#)

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3VA5180-6ED12-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-6ED12-0AA0>

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

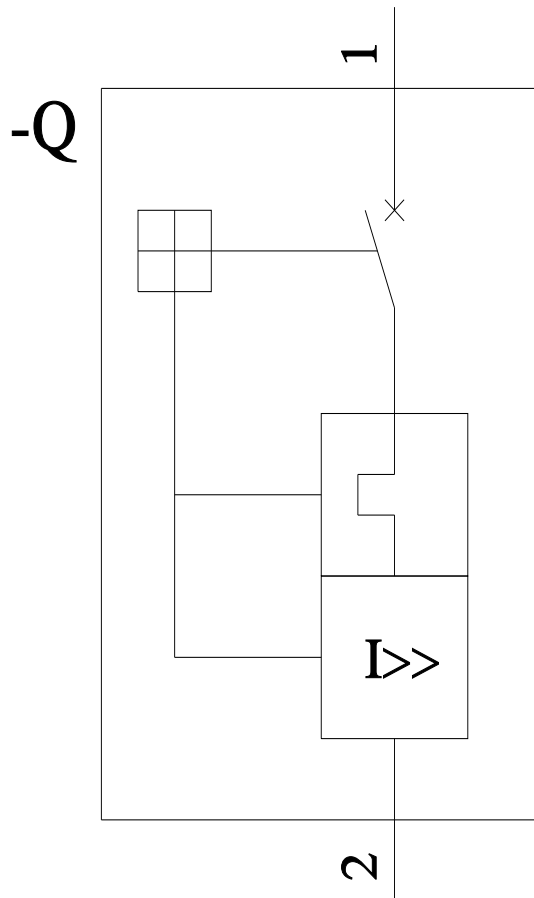
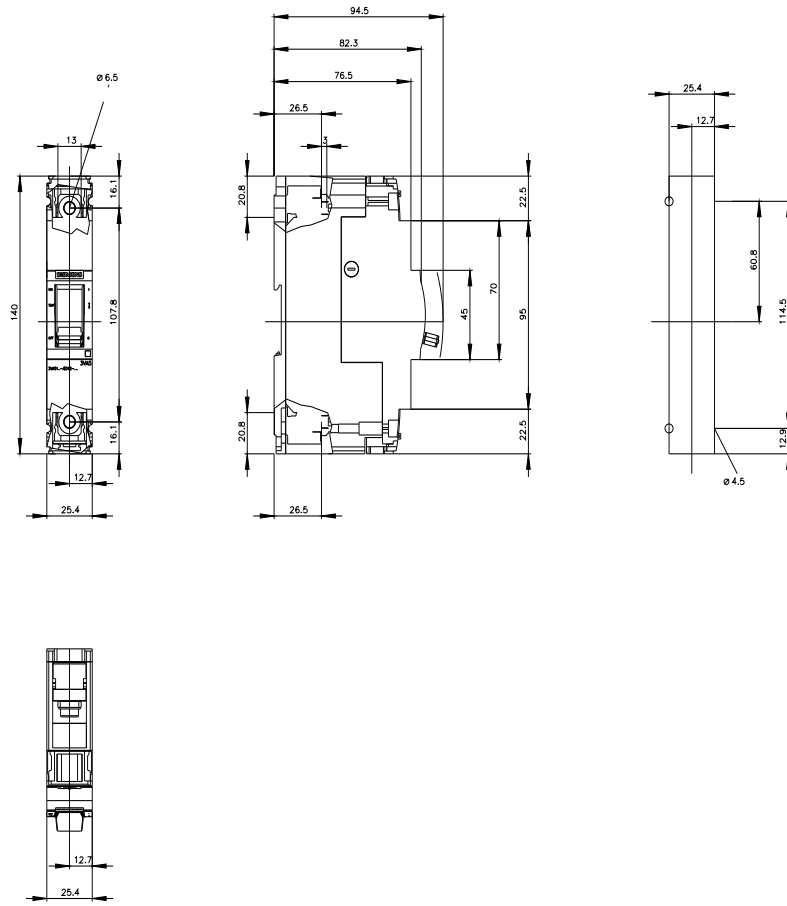
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5180-6ED12-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5180-6ED12-0AA0)

CAX-Online-Generator

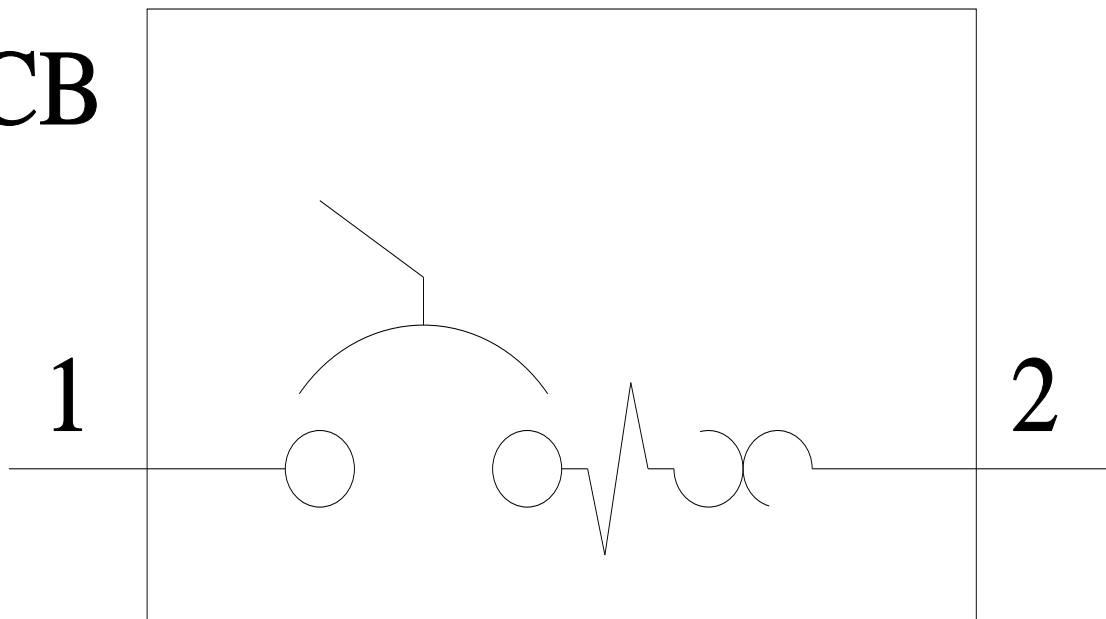
<http://www.siemens.com/cax>

Tender specifications


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



# CB



last modified:

8/15/2023 



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

[3VA51806ED120AA0](#)