



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	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	H5EAS
Product version	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	
rated insulation voltage Ui	500 V
Max. rated operational voltage Ue with DC	125 V
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	6.43 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
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

#### Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	H
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	55 kA
• at 415 V	5 kA
breaking capacity operating short-circuit current (Ics)	
• at 240 V	55 kA
• at 415 V	5 kA
short-circuit current making capacity (Icm)	
• 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

#### Switching capacity according to UL 489

breaking capacity current	
• at 120 V	100 kA
• at 277 V	50 kA
• at 347 V	18 kA

#### Adjustable parameters

Adjustable response value current / I <sub>g</sub> min.	80 A
Adjustable response value current / I <sub>g</sub> min.	80 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

#### Mechanical Design

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

#### Connections

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-section, connection screw, width x thickness , min.	12 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5 mm

#### Auxiliary circuit

product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
number of CO contacts / for auxiliary contacts	0

#### Accessories

product extension / optional / motor drive	No
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#### 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 / according to IEC 81346-2	Q
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General Product Approval

EMC

Marine / Shipping



[Confirmation](#)



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?mfb=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, ...)

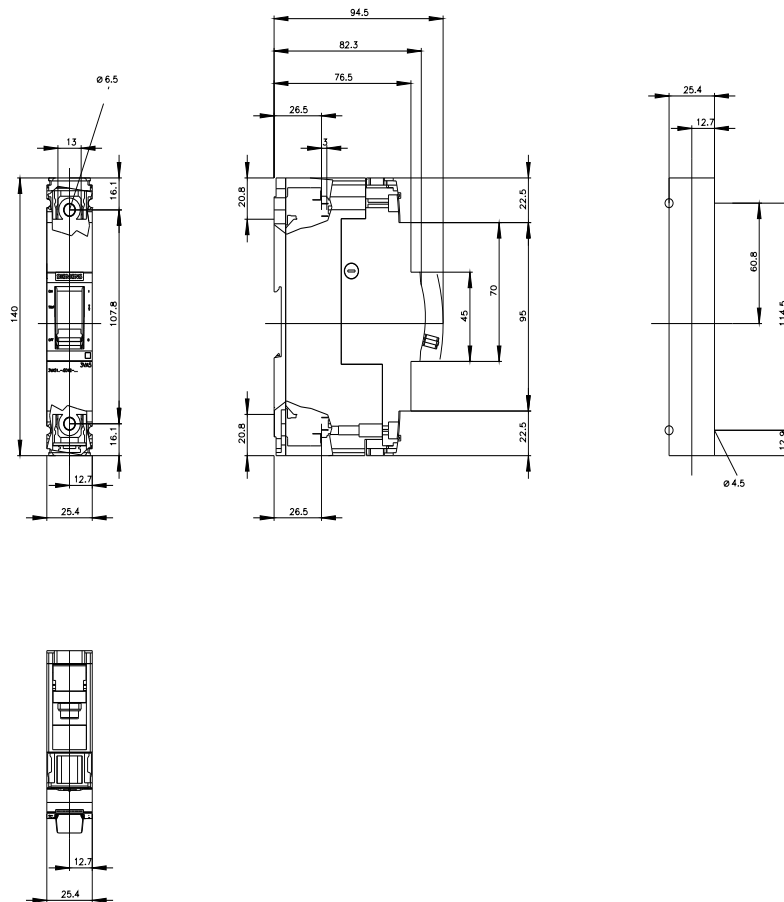
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA5180-6ED12-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5180-6ED12-0AA0)

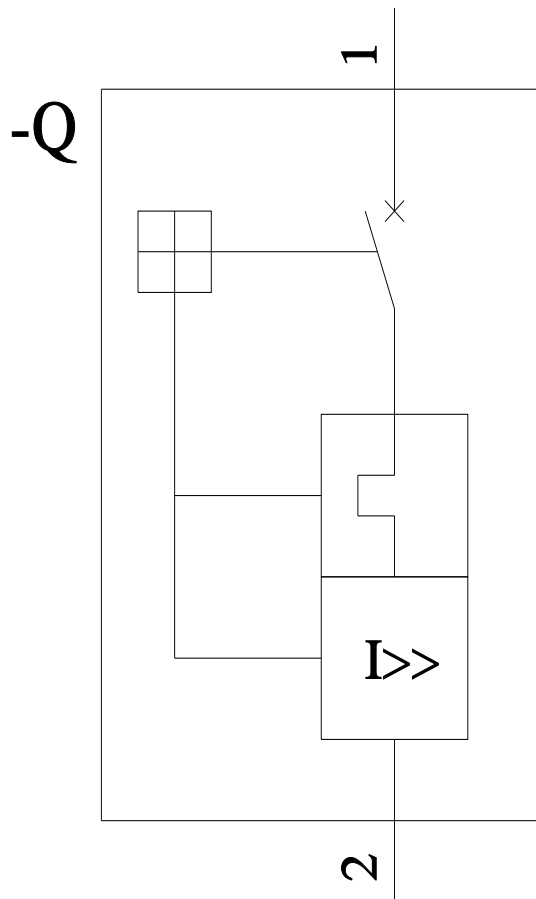
CAX-Online-Generator

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

Tender specifications

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





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