



circuit breaker 3VA5 UL frame 125 breaking capacity class H 65kA @ 480V 3-pole, line protection TM210, FTFM, In=80A overload protection Ir=80A fixed short-circuit protection li=10 x In without connection

Model	
product brand name	SETRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HEAS
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	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	19.3 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	953 g
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

<ul style="list-style-type: none"> at 70 °C 	72 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	H
maximum short-circuit current breaking capacity (I _{cu}) <ul style="list-style-type: none"> at 240 V at 415 V at 690 V 	150 kA 70 kA 10 kA
operating short-circuit current breaking capacity (I _{cs}) <ul style="list-style-type: none"> at 240 V at 415 V at 690 V 	150 kA 70 kA 5 kA
short-circuit current making capacity (I _{cm}) <ul style="list-style-type: none"> at 240 V at 415 V at 690 V 	330 kA 154 kA 17 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	
current breaking capacity <ul style="list-style-type: none"> at 240 V at 480 V at 600 Y/347 V 	150 kA 65 kA 25 kA
Adjustable parameters	
adjustable response value setting current (I _r) / of the L-trip / with I ² t characteristic <ul style="list-style-type: none"> minimum maximum 	80 A 80 A
adjustable response value delay time (t _r) / for L-tripping / with I ² t characteristic <ul style="list-style-type: none"> minimum maximum 	1 s 1 s
adjustable response value setting current (I _i) / for I-tripping <ul style="list-style-type: none"> minimum maximum 	800 A 800 A
adjustable setting current (I _{nN}) / for N-tripping <ul style="list-style-type: none"> minimum maximum 	0 A 0 A
adjustable current response value current / of the current-dependent overload release	80 ... 80 A
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]	5.51 in
height	140 mm
width [in]	3 in
width	76.2 mm
depth [in]	3.01 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
- during operation / maximum
- during storage / minimum
- during storage / maximum

-25 °C
70 °C
-40 °C
80 °C

Certificates

reference code / according to IEC 81346-2

Q

General Product Approval



[Confirmation](#)



[Miscellaneous](#)

General Product Approval

EMC

Declaration of Conformity

Test Certificates

[KC](#)



[Type Test Certificates/Test Report](#)

Test Certificates

Marine / Shipping

[Special Test Certificate](#)



other

[Miscellaneous](#)

[Confirmation](#)

[Miscellaneous](#)

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=3VA5180-6ED31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-6ED31-0AA0>

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

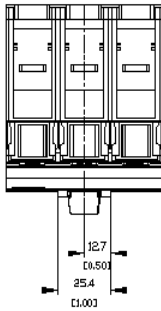
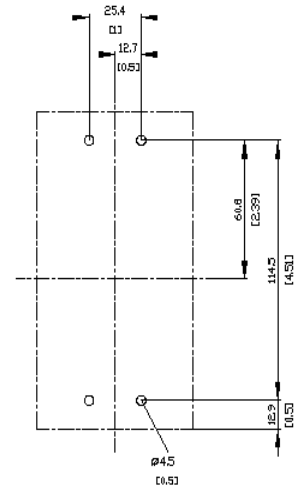
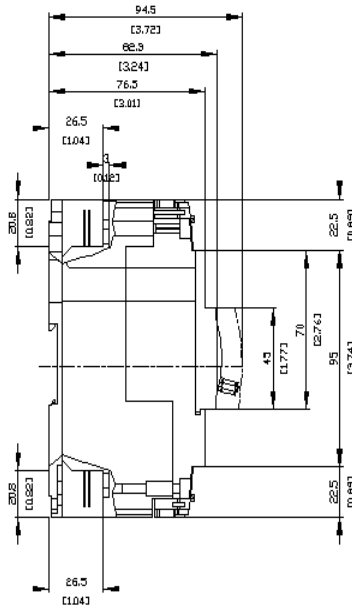
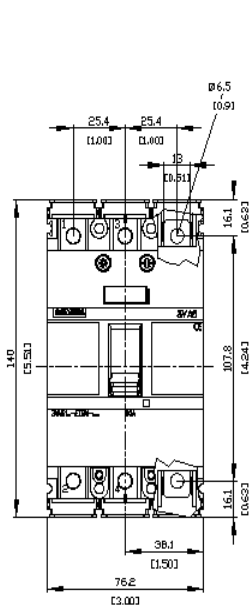
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5180-6ED31-0AA0

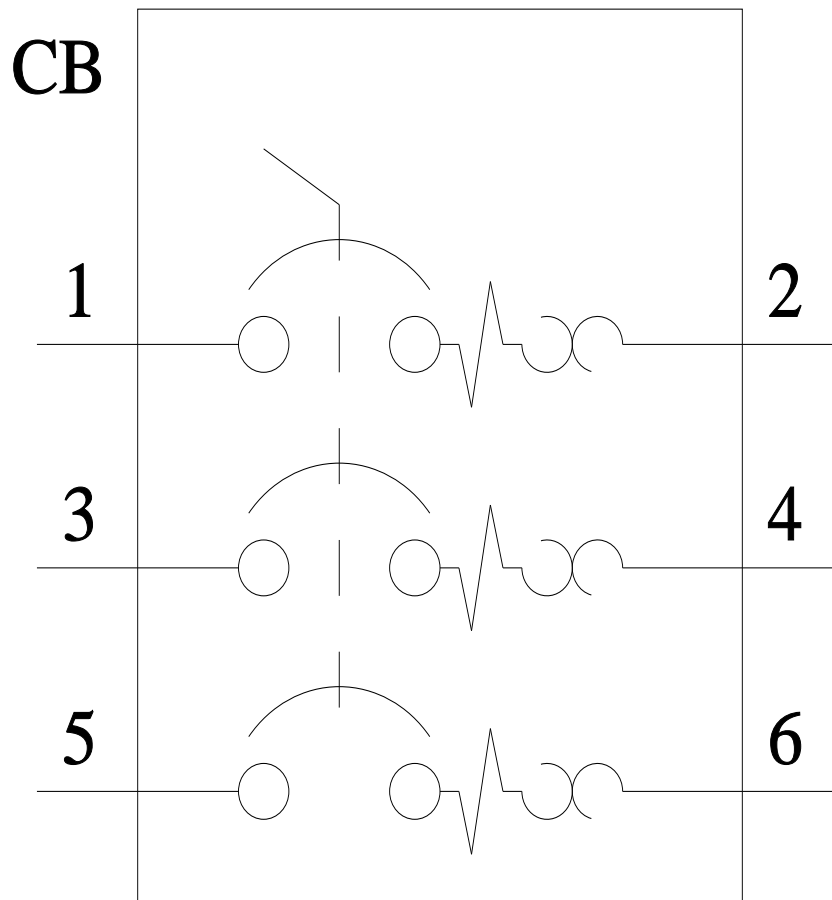
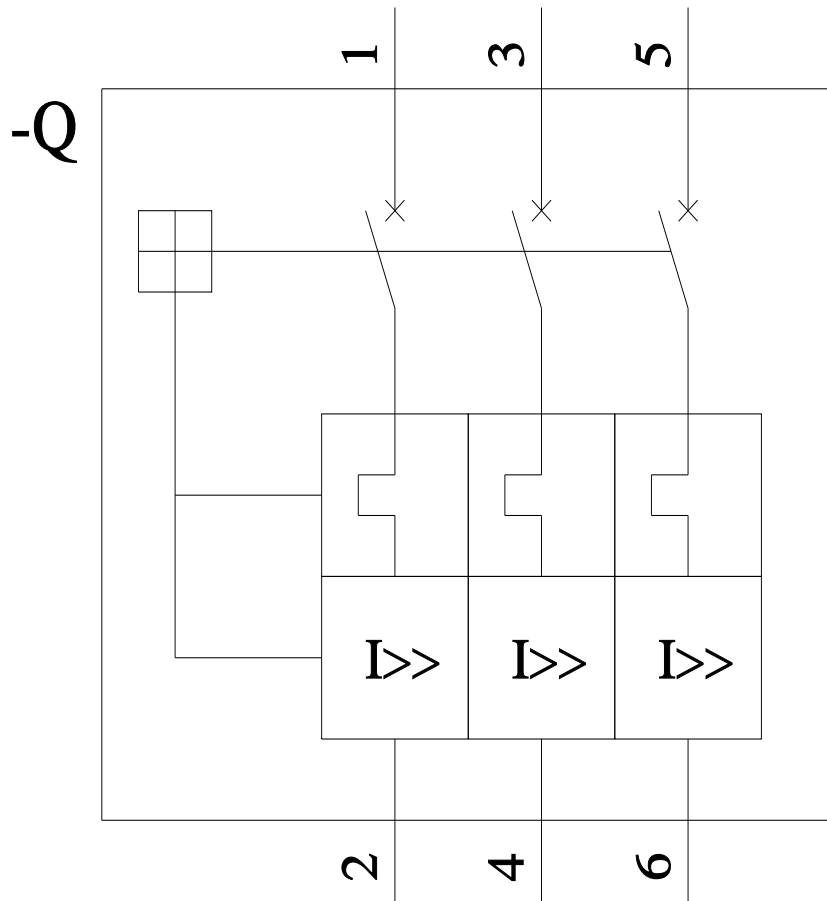
CAX-Online-Generator

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

Tender specifications

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





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