



circuit breaker 3VA5 UL Frame 125 breaking capacity class M 35 kA @ 480 V 2-pole, line protection TM210, FTFM, In=80 A overload protection Ir=80 A permanently set short-circuit protection Ii=10 x In without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MEAS
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	2
General technical data	
insulation voltage / rated value	600 V
operating voltage / at DC / rated value	250 V
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	12.86 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/retrofittable / short-circuit and overload proof	No
product function	
• communication function	No
• other measurement function	No
Net Weight	657 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
• at 70 °C	72 A

Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	85 kA
• at 415 V	55 kA
operating short-circuit current breaking capacity (I _{cs})	
• at 240 V	85 kA
• at 415 V	55 kA
short-circuit current making capacity (I _{cm})	
• at 240 V	187 kA
• at 415 V	121 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	
• at 240 V	85 kA
• at 480 V	35 kA
• at 600 Y/347 V	18 kA

Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I ² t characteristic	
• minimum	80 A
• maximum	80 A
adjustable response value delay time (t _r) / for L-tripping / with I ² t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (I _i) / for I-tripping	
• minimum	800 A
• maximum	800 A
adjustable setting current (I _{nN}) / for N-tripping	
• minimum	0 A
• maximum	0 A
product function / grounding protection	No

Mechanical Design

product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	5.51 in
height	140 mm
width [in]	2 in
width	50.8 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	No
--	----

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
reference code / according to IEC 81346-2	Q

Approvals / Certificates

General Product Approval



[Confirmation](#)



General Product Approval

EMV

Test Certificates



[Miscellaneous](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Marine / Shipping

other



[Confirmation](#)

other

Environment

[Miscellaneous](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

Further information

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=3VA5180-5ED21-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-5ED21-0AA0>

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

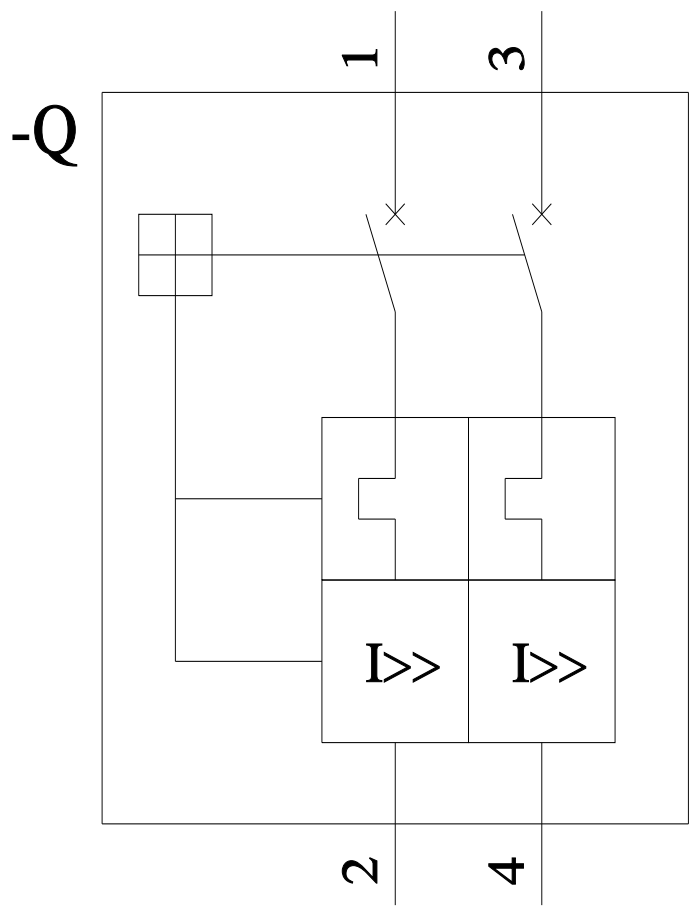
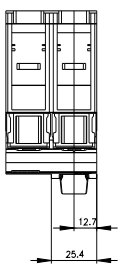
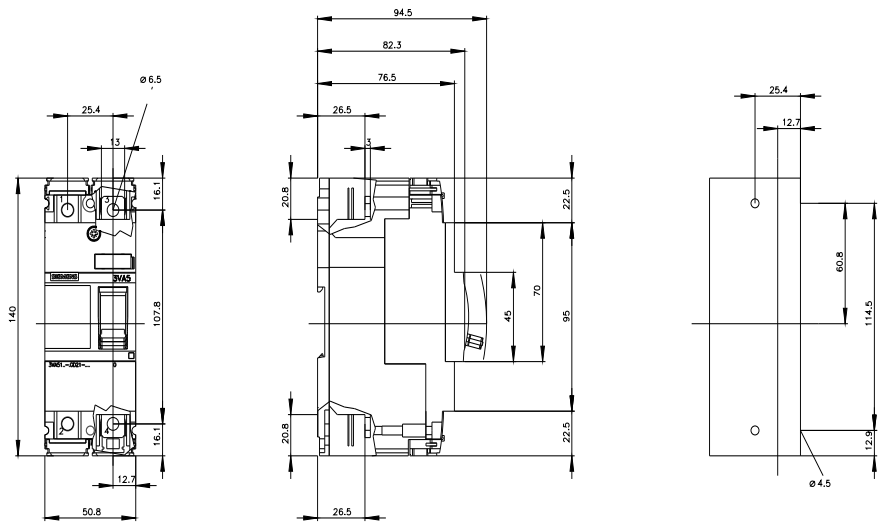
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5180-5ED21-0AA0

CAX-Online-Generator

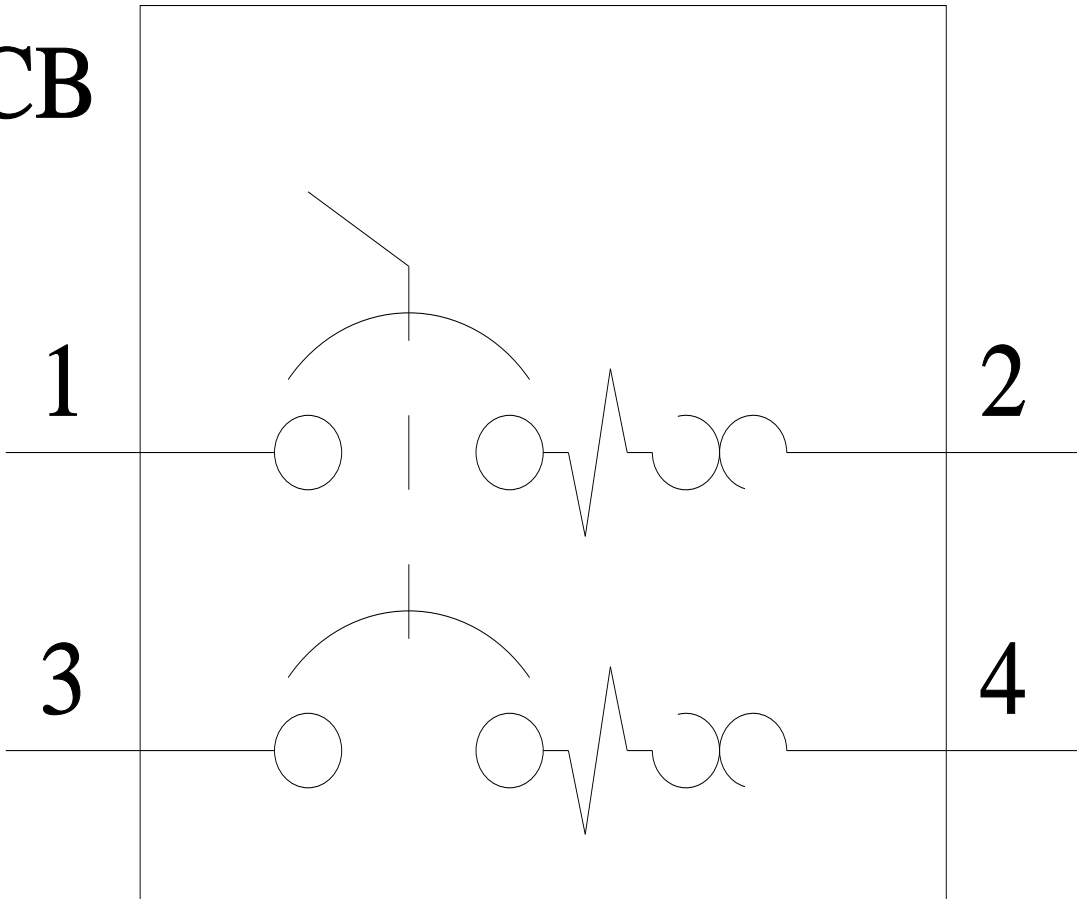
<http://www.siemens.com/cax>

Tender specifications

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



CB



last modified:

3/11/2024 

