



circuit breaker 3VA5 UL frame 125 breaking capacity class H 65kA @ 480 V 2-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	HEAS
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	2
General technical data	
rated insulation voltage Ui	600 V
Max. rated operational voltage Ue with DC	250 V
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	12.86 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	0.669 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 • at 60 °C • at 65 °C • at 70 °C	76 A 74 A 73 A 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 • at 415 V	150 kA 70 kA	
breaking capacity operating short-circuit current (Ics) • at 240 V • at 415 V	150 kA 70 kA	
short-circuit current making capacity (Icm) • at 240 V • at 415 V	330 kA 154 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 240 V • at 480 V • at 600 Y/347 V	150 kA 65 kA 25 kA	
Adjustable parameters		
Adjustable response value current / I _g min.	80 A	
Adjustable response value current / I _g min.	80 A	
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No	
Mechanical Design		
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	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 • voltage trigger • trip indicator	No No No	
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 • 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	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?mlfb=3VA5180-6ED22-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-6ED22-0AA0>

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

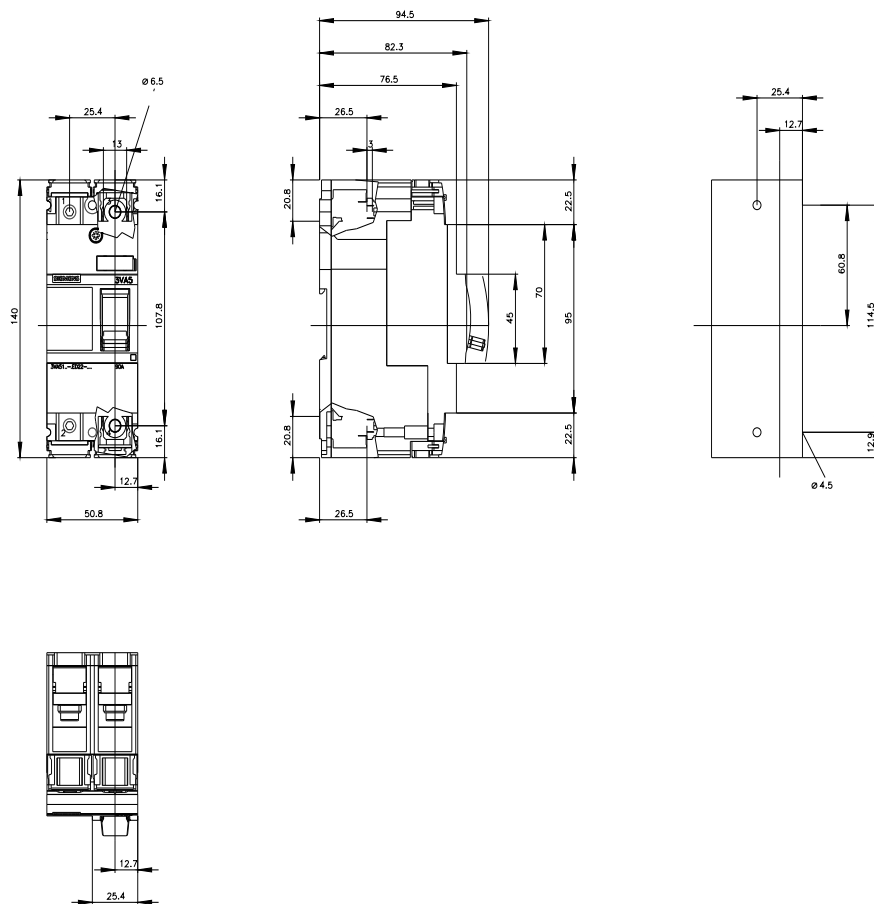
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5180-6ED22-0AA0

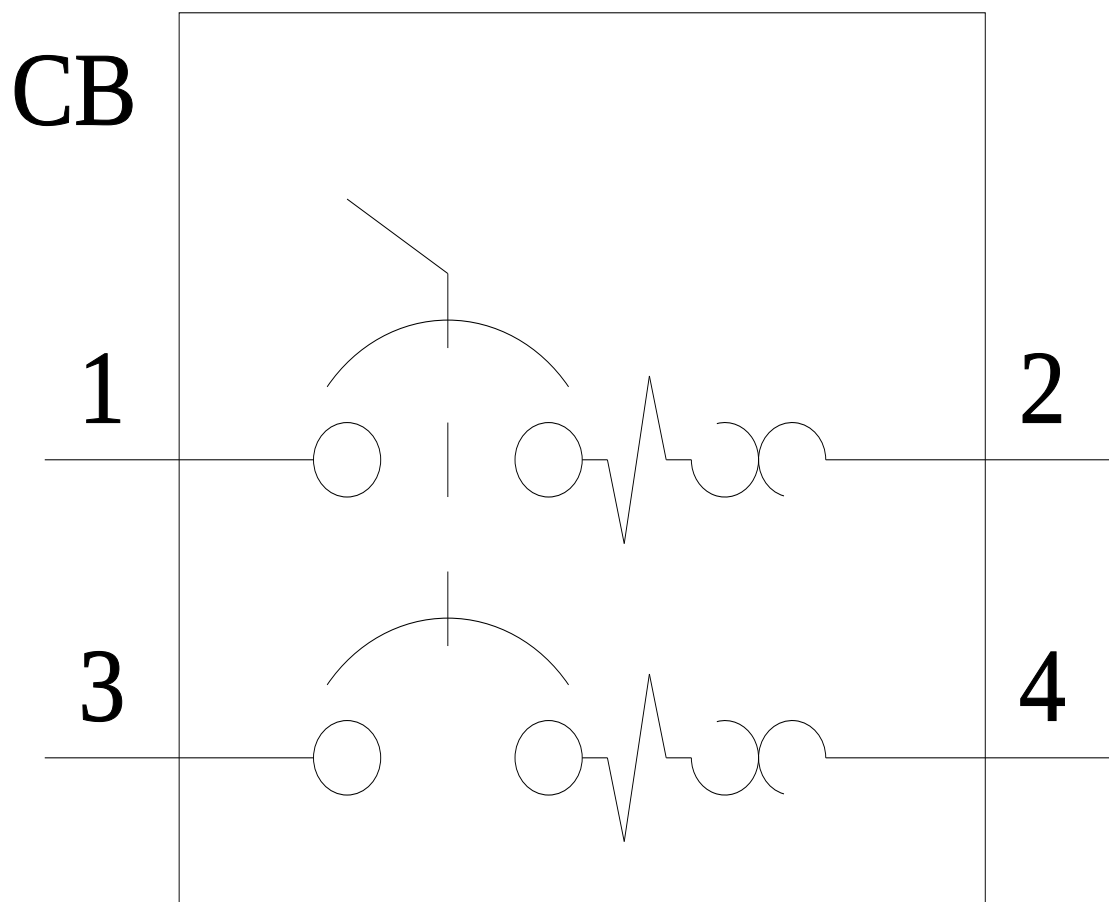
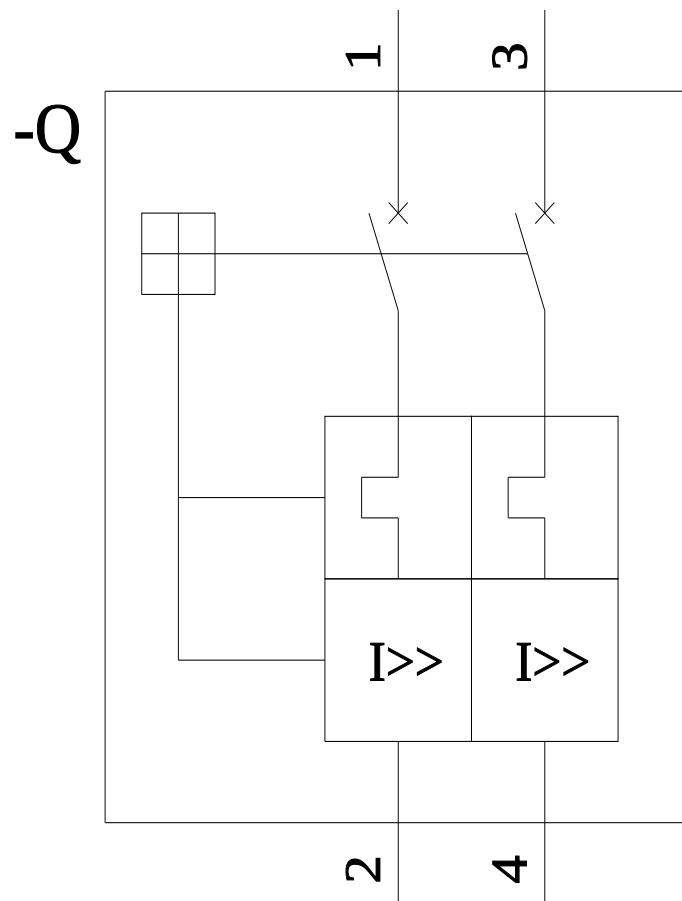
CAX-Online-Generator

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

Tender specifications

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





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