



circuit breaker 3VA5 UL Frame 400 breaking capacity class M 35 kA @ 480 V 3-pole, line protection TM230, FTAM, In=300 A overload protection Ir=300 A permanently set short-circuit protection Ii=5...10 x In cable connection on two sides

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MJAS
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	TM230
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	70 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	23.4 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	6 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 000
electrical endurance (operating cycles) / at 480 V	6 000
electrical endurance (operating cycles) / at 600 V	3 000
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
product function	
• communication function	No
• other measurement function	No
Net Weight	5.896 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	300 A
• at 45 °C	294 A
• at 50 °C	288 A
• at 55 °C	282 A
• at 60 °C	276 A
• at 65 °C	270 A
• at 70 °C	264 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 • at 415 V • at 690 V	85 kA 55 kA 7 kA
operating short-circuit current breaking capacity (I _{cs}) • at 240 V • at 415 V • at 690 V	85 kA 55 kA 5 kA
short-circuit current making capacity (I _{cm}) • at 240 V • at 415 V • at 690 V	187 kA 121 kA 11.9 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 • at 480 V • at 600 V	85 kA 35 kA 18 kA
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Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I ² t characteristic • minimum • maximum	300 A 300 A
adjustable response value delay time (t _r) / for L-tripping / with I ² t characteristic • minimum • maximum	1 s 1 s
adjustable response value setting current (I _i) / for I-tripping • minimum • maximum	1 500 A 3 000 A
adjustable setting current (I _{nN}) / for N-tripping • minimum • maximum	0 A 0 A
product function / grounding protection	No

Mechanical Design

product component • undervoltage release • voltage trigger • trip indicator	No No No
height [in]	9.76 in
height	248 mm
width [in]	5.43 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (1 AWG - 600 kcmil)
width	138 mm
depth [in]	4.33 in
depth	110 mm

Connections

arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	circular conductor terminal on both sides

Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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Accessories

product extension / optional / motor drive	Yes
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Environmental conditions

protection class IP / on the front	IP40
ambient temperature • during operation / minimum	-25 °C

- during operation / maximum
- during storage / minimum
- during storage / maximum

70 °C
-40 °C
80 °C

reference code / according to IEC 81346-2

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Approvals / Certificates

General Product Approval



[Miscellaneous](#)



EMV

Test Certificates

other

Environment



[Type Test Certificates/Test Report](#)

[Confirmation](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3VA5330-5EC36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5330-5EC36-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5330-5EC36-0AA0

CAX-Online-Generator

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

Tender specifications

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

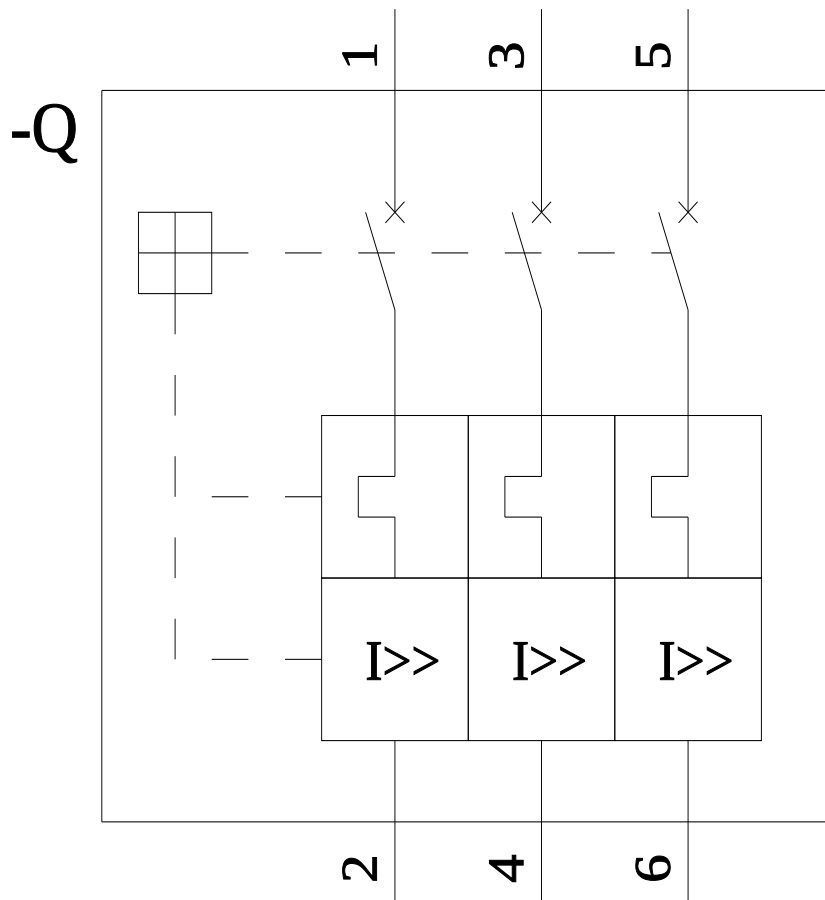
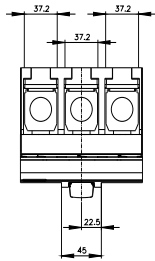
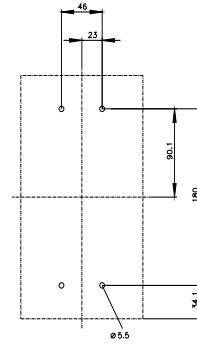
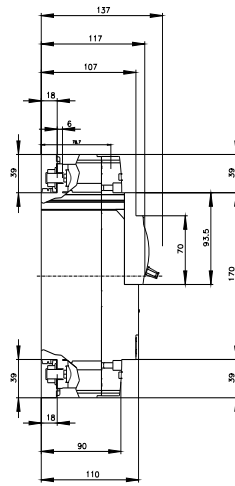
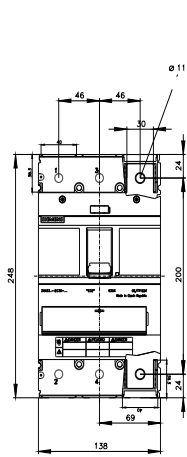


Diagram of a 3-qubit quantum circuit with 6 lines. The circuit consists of three identical stages. Each stage has a CNOT gate with control on line 1 and target on line 3, followed by a CNOT gate with control on line 1 and target on line 5, and finally a CNOT gate with control on line 1 and target on line 2. The lines are labeled 1, 2, 3, 4, 5, 6 on the right side. The top line is labeled 'CB'.

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