



circuit breaker 3VA5 UL Frame 800 breaking capacity class H 65 kA @ 480 V 2-pole, line protection TM230, FTAM, In=800 A overload protection Ir=800 A permanently set short-circuit protection Ii=5...10 x In nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HMAS
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	2
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	140 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	70 W
mechanical service life (operating cycles) / typical	10 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	5 800
electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
electrical endurance (operating cycles) / at 480 V	5 800
electrical endurance (operating cycles) / at 600 V	4 000
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
product function	
• communication function	No
• other measurement function	No
Net Weight	13.32 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	800 A
• at 45 °C	783 A
• at 50 °C	766 A
• at 55 °C	750 A
• at 60 °C	733 A

• at 65 °C • at 70 °C	716 A 699 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	H
maximum short-circuit current breaking capacity (I _{cu}) • at 240 V • at 415 V • at 690 V	100 kA 70 kA 35 kA
operating short-circuit current breaking capacity (I _{cs}) • at 240 V • at 415 V • at 690 V	100 kA 70 kA 19 kA
short-circuit current making capacity (I _{cm}) • at 240 V • at 415 V • at 690 V	220 kA 154 kA 73.5 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	
current breaking capacity • at 240 V • at 480 V • at 600 V	100 kA 65 kA 25 kA
Adjustable parameters	
adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic • minimum • maximum	800 A 800 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic • minimum • maximum	1 s 1 s
adjustable response value setting current (I _i) / for I-tripping • minimum • maximum	4 000 A 8 000 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]	12.91 in
height	328 mm
width [in]	8.27 in
width	210 mm
depth [in]	4.72 in
depth	120 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-sections / for flat-bar terminal connection / minimum	20 x 4 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	50 x 28 mm
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	silver
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	



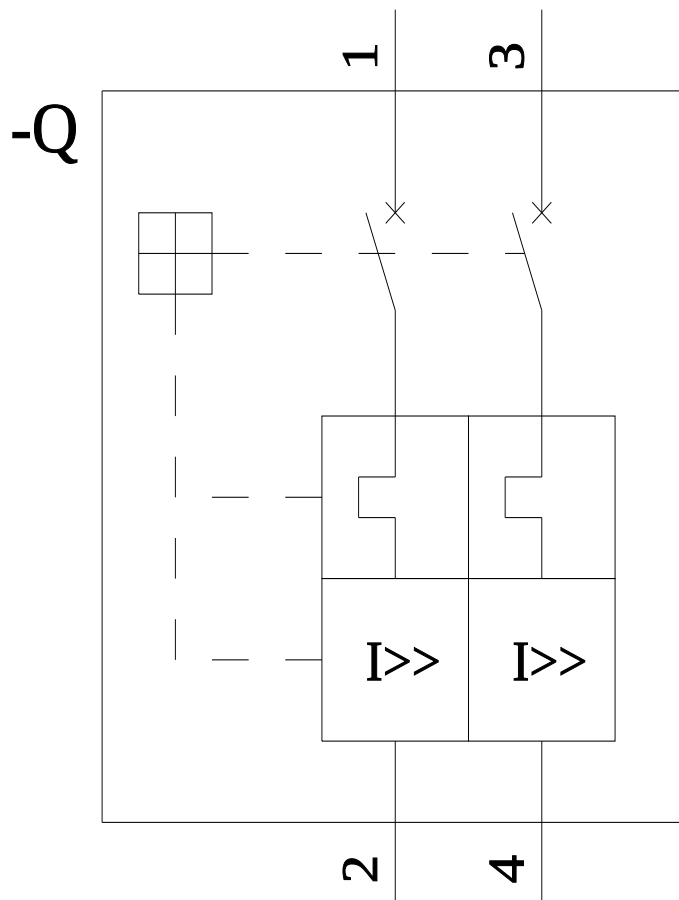
[Confirmation](#)



General Product Approval	EMV	Test Certificates	Maritime application
Miscellaneous			Type Test Certificates/Test Report

Maritime application	other	Environment
	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,...)	https://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)	https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5580-6EC62-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)	https://support.industry.siemens.com/cs/ww/en/ps/3VA5580-6EC62-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)	https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5580-6EC62-0AA0
CAX-Online-Generator	https://www.siemens.com/cax
Tender specifications	https://www.siemens.com/specifications



The diagram shows a four-terminal device with two horizontal leads and two vertical leads. The top-left corner is labeled 'CB'. The four terminals are labeled 1, 2, 3, and 4. The device contains two identical horizontal sections, each with a circle, a vertical line, and a zigzag line. A curved line connects the top of the first circle to the top of the second circle in each section. A diagonal line is connected to the top of the first circle in the top section.

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