



molded case switch 3VA5 UL frame 1600 max short-circuit curr. rating 100kA @ 480 V 3-pole MCS110, FM, In=1600A without overload protection short circuit protection Ii=7.5 x In w/o connection self protection

Model	
product brand name	SETRON
product designation	Molded-case circuit breaker
product designation / according to UL file	CPAS
design of the product	Molded case switch
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	MCS110
protection function of the overcurrent release	I
number of poles	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	750 V
operating voltage / at AC / rated value	600 V
power loss [W] / maximum	423 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	423 W
mechanical service life (operating cycles) / typical	3 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	1 500
electrical endurance (operating cycles) / at AC-1 / at 690 V	500
electrical endurance (operating cycles) / at 480 V	1 500
electrical endurance (operating cycles) / at 600 V	500
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
product function	
• communication function	No
• phase failure detection	No
• other measurement function	No
Net Weight	24.4 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	1 600 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	C
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	200 kA
• at 415 V	110 kA
• at 690 V	35 kA
operating short-circuit current breaking capacity (Ics)	

• at 240 V • at 415 V • at 690 V	100 kA 55 kA 17 kA
short-circuit current making capacity (I _{cm}) • at 240 V • at 415 V • at 690 V	440 kA 242 kA 77 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 Y/347 V • at 600 V	200 kA 100 kA 65 kA 65 kA
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Adjustable parameters

adjustable response value setting current (I _i) / for I-tripping • minimum • maximum	12 000 A 12 000 A
product function / grounding protection	No

Mechanical Design

product component • undervoltage release • trip indicator	No No
height [in]	8.14 in
height	207 mm
width [in]	8.99 in
width	228.4 mm
depth [in]	16 in
depth	406.4 mm

Connections

type of electrical connection / for main current circuit	without terminals
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	silver
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
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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
reference code / according to IEC 81346-2	F

Approvals / Certificates

General Product Approval



[Confirmation](#)



General Product Approval	EMV	Test Certificates	Maritime application
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[Miscellaneous](#)



[Type Test Certificates/Test Report](#)



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=3VA5816-7BB31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5816-7BB31-0AA0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5816-7BB31-0AA0

CAX-Online-Generator

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

Tender specifications

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





