

CIRCUIT BREAKER 3VA5 UL FRAME 125 BREAKING CAPACITY CLASS M 35KA @ 480 V 3-POLE, LINE PROTECTION TM230, FTAM, IN=80A OVERLOAD PROTECTION IR=80A FIXED SHORT CIRCUIT PROTECTION II=5...10 X IN W/O CONNECTION



Model	
product brandname	SENTRON
Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Number of poles	3
General technical data	
Tension assignée d'isolement U_i	800 V
Max. rated operational voltage U_e with AC 50/60Hz	690 V
Max. rated operational voltage U_e with DC	500 V
Active power loss / for rated value of the current / at AC / in hot operating state / per device	19.2 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	6.4 W
Mechanical service life (switching cycles) / typical	15 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical lifetime (switching cycles) / at 480 V / at 50/60 Hz	8 000

Electrical lifetime (switching cycles) / at 600 V / at 50/60 Hz	4 000
Neutral conductors / upgradeable/retrofitable	No
Product function	
• communication function	No
• other measurement function	No

Electricity

Marking / according to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	125 A
Courant permanent assigné lu	80 A
Operating current	
• at 40 °C	80 A
• at 45 °C	78.47 A
• at 50 °C	77 A
• at 55 °C	75.58 A
• at 60 °C	74.21 A
• at 65 °C	72.89 A
• at 70 °C	71.62 A

Switching capacity according to IEC 60947

Maximum short-circuit current breaking capacity (Icu)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	7 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	110 kA
• at 415 V	55 kA
• at 690 V	5 kA
Short-circuit current making capacity (Icm)	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	11.9 kA

Switching capacity according to UL 489

Breaking capacity current	
• at 240 V	85 kA
• at 480 V	35 kA
• at 600 Y/347 V	18 kA

Adjustable parameters

Adjustable response value current / I _g min.	80 A
Adjustable response value current / I _g min.	80 A

Adjustable response value current / li min.	400 A
Adjustable response value current / li max.	800 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

Height [in]	5.5 in
Height	140 mm
Width [in]	3 in
Width	76.2 mm
Depth [in]	3 in
Depth	76.5 mm

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	
<ul style="list-style-type: none"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum 	<ul style="list-style-type: none"> -25 °C 70 °C -40 °C 80 °C

Certificates

Equipment marking / acc. to DIN EN 81346-2	Q
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No

General Product Approval	EMC	Declaration of Conformity	other
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Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA5180-5EC31-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA5180-5EC31-0AA0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5180-5EC31-0AA0

