



circuit breaker 3VA5 UL Frame 125 breaking capacity class M 35 kA @ 480 V 2-pole, line protection TM210, FTFM,  $I_n=90$  A overload protection  $I_r=90$  A permanently set short-circuit protection  $I_i=10 \times I_n$  without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MEAS
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	TM210
protection function of the overcurrent release	LI
number of poles	2
General technical data	
insulation voltage / rated value	500 V
operating voltage / at DC / rated value	250 V
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	14.26 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	7.13 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
electrical endurance (operating cycles) / at 480 V	8 000
electrical endurance (operating cycles) / at 600 V	4 000
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
product function	
• communication function	No
• other measurement function	No
Net Weight	621 g
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	90 A
• at 45 °C	88 A
• at 50 °C	86 A
• at 55 °C	84 A
• at 60 °C	82 A
• at 65 °C	80 A
• at 70 °C	79 A

Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	187 kA
• at 415 V	121 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	85 kA
• at 480 V	35 kA
• at 600 Y/347 V	18 kA
Adjustable parameters	
adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sup>2</sup> t characteristic	
• minimum	90 A
• maximum	90 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sup>2</sup> t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping	
• minimum	900 A
• maximum	900 A
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
• minimum	0 A
• maximum	0 A
product function / grounding protection	No
Mechanical Design	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
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	Without connection
type of electrical connection / for main current circuit	Without
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



### General Product Approval

### EMV

### Test Certificates



[Miscellaneous](#)



[Type Test Certificates/Test Report](#)

### Test Certificates

### Maritime application

[Special Test Certificate](#)



### 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,...)

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

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5190-5ED21-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5190-5ED21-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5190-5ED21-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5190-5ED21-0AA0)

### CAX-Online-Generator

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

### Tender specifications

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



**CB**



last modified:

4/4/2025 

