



circuit breaker 3VA5 UL frame 250 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM210, FTFM, In=45A overload protection Ir=45A fixed short-circuit protection li=10 x In cable connection on both sides

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MFAS
Product version	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)	Yes
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	3
General technical data	
rated insulation voltage Ui	800 V
Max. rated operational voltage Ue with DC	750 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	22 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	7.4 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	4 000
electrical endurance (switching cycles) / at 480 V	8 000
electrical endurance (switching cycles) / at 600 V	4 000
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	without
product function	
• communication function	No
• other measurement function	No
Net Weight	2.26 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	85 kA

<ul style="list-style-type: none"> <li>at 415 V</li> <li>at 690 V</li> </ul>	55 kA 7 kA
breaking capacity operating short-circuit current (Ics) <ul style="list-style-type: none"> <li>at 240 V</li> <li>at 415 V</li> <li>at 690 V</li> </ul>	85 kA 55 kA 7 kA
short-circuit current making capacity (Icm) <ul style="list-style-type: none"> <li>at 240 V</li> <li>at 415 V</li> <li>at 690 V</li> </ul>	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

breaking capacity current <ul style="list-style-type: none"> <li>at 240 V</li> <li>at 480 V</li> <li>at 600 V</li> </ul>	85 kA 35 kA 18 kA
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### Adjustable parameters

Adjustable response value current / I <sub>g</sub> min.	45 A
Adjustable response value current / I <sub>g</sub> min.	45 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

### Mechanical Design

height [in]	7.28 in
Height	185 mm
width [in]	4.13 in
Width	105 mm
depth [in]	3.27 in
depth	83 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
Type of connectable conductor cross-section, round conductor terminal, stranded	1 x (14 AWG - 1/0)

### Auxiliary circuit

product component <ul style="list-style-type: none"> <li>undervoltage release</li> <li>voltage trigger</li> <li>trip indicator</li> </ul>	No No No
number of CO contacts / for auxiliary contacts	0

### 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"> <li>during operation / minimum</li> <li>during operation / maximum</li> <li>during storage / minimum</li> <li>during storage / maximum</li> </ul>	-25 °C 70 °C -40 °C 80 °C

### Certificates

reference code / according to IEC 81346-2	Q
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General Product Approval	EMC	Declaration of Conformity
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[Confirmation](#)



Declaration of  
Conformity

Marine / Shipping

other



[Miscellaneous](#)

### Further information

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3VA5245-5ED36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5245-5ED36-0AA0>

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

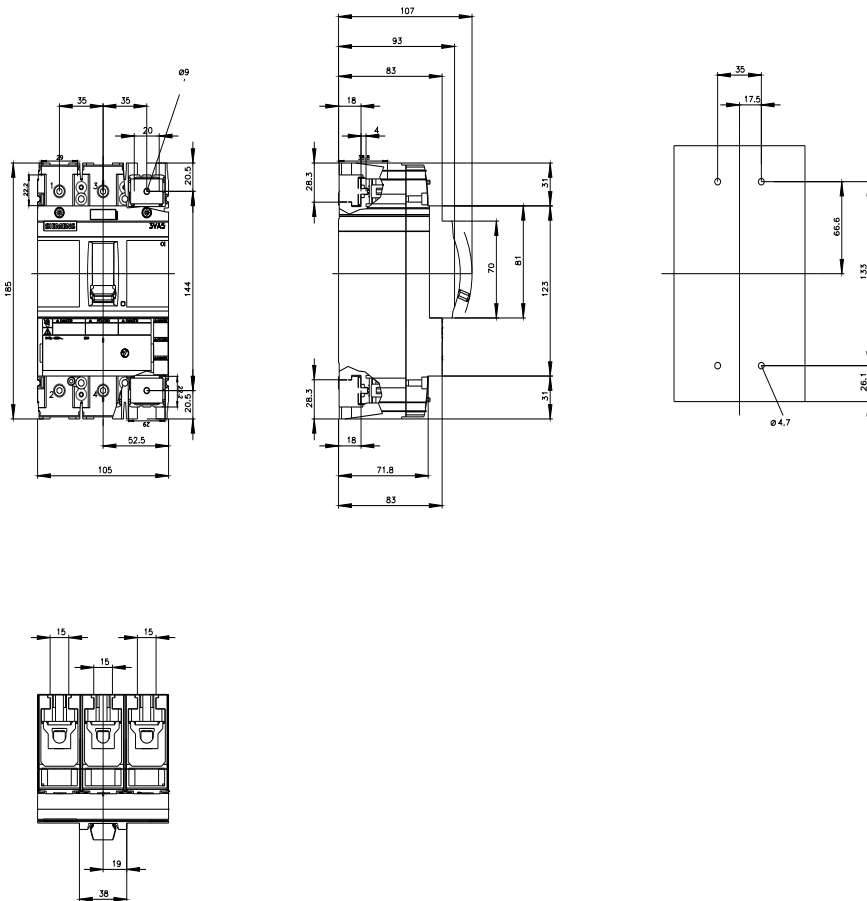
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA5245-5ED36-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5245-5ED36-0AA0)

CAX-Online-Generator

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

Tender specifications

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





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