



Circuit breaker 3VA5 UL Frame 250 Breaking capacity class H 65kA @ 480 V 3-pole, line protection TM210, FTFM,  $I_n=45A$  Overload protection  $I_r=40A$  fixed 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	HFAS
Product version	System protection
design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
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	750 V
power loss [W] / maximum	22.2 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
Current	
marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	250 A
Courant permanent assigné $I_u$	45 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	H
breaking capacity maximum short-circuit current ( $I_{cu}$ )	
• at 240 V	100 kA
• at 415 V	70 kA

<ul style="list-style-type: none"> <li>at 690 V</li> </ul>	10 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>	100 kA 70 kA 10 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>	220 kA 154 kA 17 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 Y/347 V</li> </ul>	100 kA 65 kA 25 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
Adjustable response value current / I <sub>i</sub> min.	450 A
Adjustable response value current / I <sub>i</sub> max.	450 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

#### Mechanical Design

height [in]	7.3 in
Height	185 mm
width [in]	4.1 in
Width	105 mm
depth [in]	3.3 in
depth	83 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
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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"> <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 / acc. to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	No

#### General Product Approval

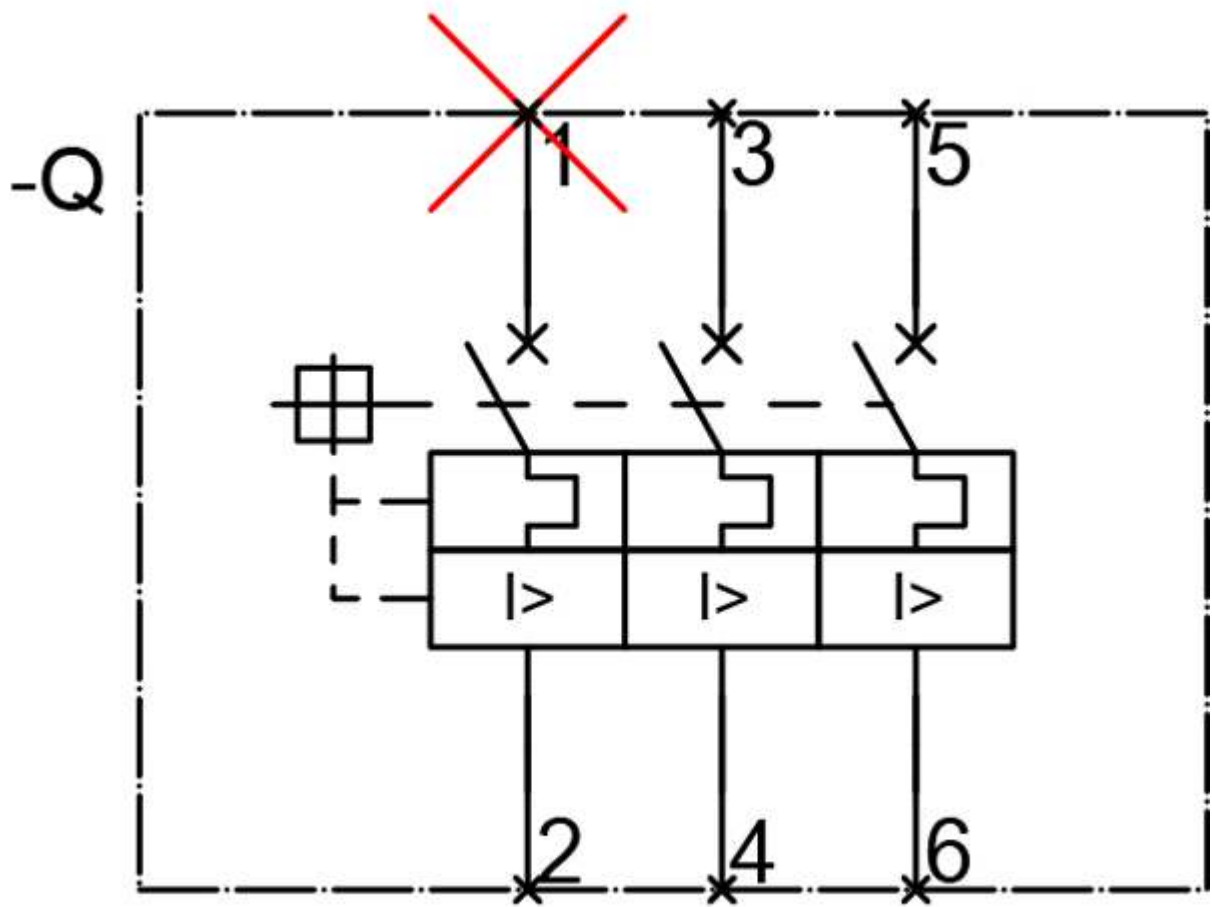


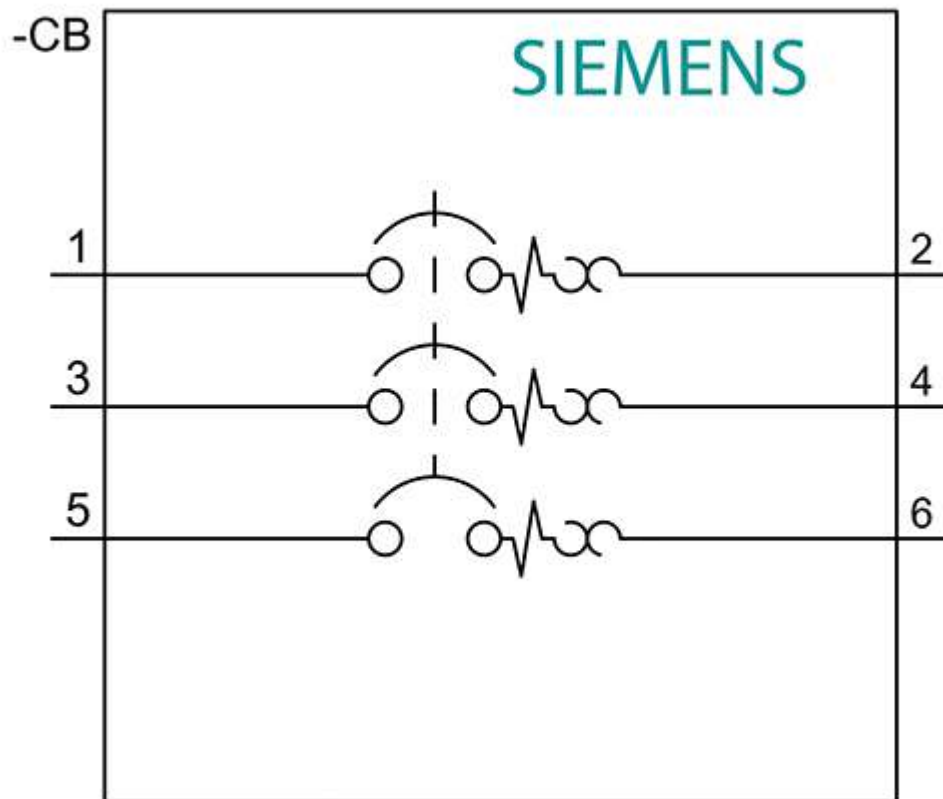
[Miscellaneous](#)



EMC	Declaration of	Shipping Approval	other
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