



circuit breaker 3VA5 UL frame 250 breaking capacity class H 65kA @ 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	HFAS
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	H
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	100 kA

• at 415 V • at 690 V	70 kA 10 kA		
breaking capacity operating short-circuit current (Ics) • at 240 V • at 415 V • at 690 V	100 kA 70 kA 10 kA		
short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 690 V	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 • at 240 V • at 480 V • at 600 V	100 kA 65 kA 25 kA		
Adjustable parameters			
Adjustable response value current / I _g min.	45 A		
Adjustable response value current / I _g min.	45 A		
Ground fault protection / tripping switchable / I ₂ t=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 • undervoltage release • voltage trigger • trip indicator	No No No		
number of CO contacts / for auxiliary contacts	0		
Accessories			
product extension / optional / motor drive	Yes		
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		
Certificates			
reference code / according to IEC 81346-2	Q		
General Product Approval		EMC	Declaration of Conformity



[Confirmation](#)



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