

circuit breaker 3VA6 UL frame 800 breaking capacity class M 35kA @ 480 V 3-pole, line protection ETU860, LSIG, In=800A overload protection Ir=320A ...800A short circuit protection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	MMAE
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	ETU860
Protective function of the overcurrent release	LSIG
Number of poles	3
General technical data	
Rated insulation voltage U_i	600 V
Max. rated operational voltage U_e with AC 50/60Hz	600 V
Power loss [W] / maximum	231 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	77 W
Mechanical service life (switching cycles) / typical	10 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	5 800
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	5 800
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	4 000
Neutral conductors / upgradeable/retrofitable	Yes
Ground fault monitoring version	Summation current formation L-conductor
Product function	
• communication function	Yes
• other measurement function	Yes

Current

Marking / acc. to UL 489 / 100%-rated breaker	Yes
Max. rated operational current of the frame size	800 A
Rated continuous current I _u	800 A

Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	M
Maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	25 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	19 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	53 kA

Switching capacity according to UL 489

Breaking capacity current	
• at 240 V	100 kA
• at 480 V	35 kA
• at 600 V	25 kA

Adjustable parameters

Adjustable response value current / I _r min.	320 A
Adjustable response value current / I _r max.	800 A
Adjustable response value time / t _r min.	0.5
Adjustable response value time / t _r max.	25

Adjustable response value current / Isd min.	480 A
Adjustable response value current / Isd max.	8 000 A
Adjustable response value time / tsd min.	0.05 s
Adjustable response value time / tsd max.	0.5 s
Adjustable response value time / tsd min.	0.05 s
Adjustable response value time / tsd max.	0.5 s
Adjustable response value current / li min.	1 200 A
Adjustable response value current / li max.	8 000 A
Ground fault protection can be switched ON/OFF	Yes
Ground fault protection / tripping switchable / I2t=ON/OFF	Yes
Adjustable response value current / Ig min.	160 A
Adjustable response value current / Ig max.	800 A
Adjustable response value current / tg min.	0.05 s
Adjustable response value current / tg max.	0.8 s

Mechanical Design

Height [in]	12.6 in
Height	328 mm
Width [in]	8.3 in
Width	210 mm
Depth [in]	4.7 in
Depth	120 mm

Auxiliary circuit

Number of CO contacts / for auxiliary contacts	0
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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

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

General Product Approval

[Miscellaneous](#)

last modified:

07/06/2020