

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY
CLASS N ICU=25KA @ 240 V 1-POLE, LINE PROTECTION
TM210, FTFM, IN=20A OVERLOAD PROTECTION IR=20A FIXED
SHORT CIRCUIT PROTECTION II=16 X IN CABLE CONNECTION



Model	
product brandname	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Line protection
Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	TM210
Protective function of the overcurrent release	LI
Number of poles	1

General technical data	
Tension assignée d'isolement Ui	500 V
Max. rated operational voltage Ue with AC 50/60Hz	415 V
Max. rated operational voltage Ue with DC	125 V
Active power loss / for rated value of the current / at AC / in hot operating state / per device	4 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4 W
Mechanical service life (switching cycles) / typical	15 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	
• communication function	No
• other measurement function	No
Net weight	0.402 kg

Electricity

Marking / according to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	160 A
Courant permanent assigné Iu	20 A
Operating current	
• at 40 °C	20 A
• at 45 °C	20 A
• at 50 °C	20 A
• at 55 °C	20 A
• at 60 °C	19 A
• at 65 °C	19 A
• at 70 °C	19 A

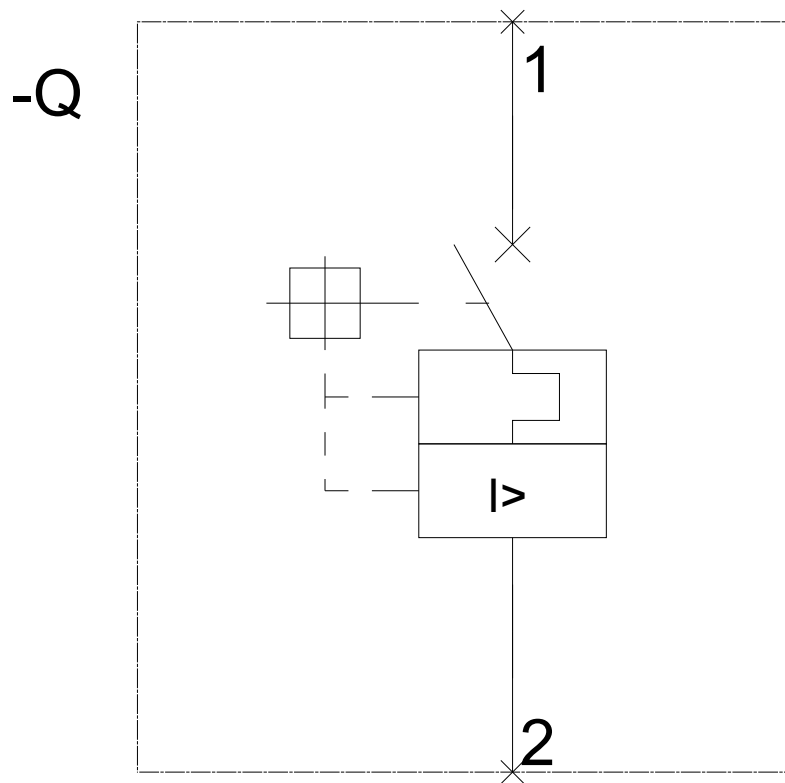
Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	N
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V	25 kA
• at 415 V	5 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	25 kA
• at 415 V	5 kA
Short-circuit current making capacity (Icm)	
• at 240 V	53 kA
• at 415 V	7.5 kA

Adjustable parameters

Adjustable response value current / I _g min.	20 A
Adjustable response value current / I _g min.	20 A
Adjustable response value current / I _g min.	1
Adjustable response value current / I _g min.	1
Short-term delayed / tripping switchable / I _{2t} =ON/OFF	No
Adjustable response value current / I _i min.	320 A
Adjustable response value current / I _i max.	320 A

Ground fault protection / tripping switchable / I2t=ON/OFF	No
Mechanical Design	
Height [in]	5.1 in
Height	130 mm
Width [in]	1 in
Width	25.4 mm
Depth [in]	2.8 in
Depth	70 mm
Connections	
Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	box terminal
Type of connectable conductor cross-section, round conductor terminal, stranded	1 x (1.5 - 70 mm²)
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
Certificates	
Equipment marking / acc. to DIN EN 81346-2	Q
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No



last modified:

10/24/2016