

Miniature circuit breaker 400 V D=70 mm 25 kA according to EN 60947-2, 2P, D20



Model	
Product brand name	SENTRON
Product designation	Miniature circuit breaker
General technical data	
Number of poles	2
Number of poles / Note	2P
Tripping characteristic class	D
circuit-breaker / Design	5SY8
Mechanical service life (switching cycles) / typical	10 000
Overvoltage category	III
Degree of pollution	3
Voltage	
Insulation voltage	
• with single-phase operation / at AC / rated value	440 V
• with multi-phase operation / at AC / rated value	440 V
Supply voltage / with single-phase operation / at AC / rated value	230 V

Supply voltage	
Type of voltage	AC
Operating current / at AC / rated value	20 A
Supply voltage	
• at AC / rated value	400 V
Operating voltage	
• at DC / rated value / maximum	72 V
Supply voltage frequency	
• rated value	50/60 Hz
Protection class	
Protection class IP	IP20, with connected conductors
Switching capacity	
Switching capacity current	
• at DC / acc. to IEC 60947-2 / rated value	15 kA
• acc. to IEC 60947-2 / rated value	30 kA
Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	1.6 W
Suitability for operation	Mechanical engineering / industry
Product details	
Product function / neutral conductor switching	No
Product feature / Touch protection	Yes
Product component	
• combined terminal top	Yes
• combined terminal bottom	Yes
Product feature	
• Properties for main switches in accordance with EN 60204-1	Yes
• halogen-free	Yes
• sealable	Yes
• silicon-free	Yes
Product extension / can be installed / supplementary devices	Yes
Short circuit	
Breaking capacity short-circuit current (I _{cn})	
• at AC / acc. to UL 1077 and CSA C22.2 No.235	5 kA
Connections	
Connectable conductor cross-section / solid	
• minimum	0.75 mm ²
• maximum	35 mm ²

Connectable conductor cross-section / stranded	
• minimum	0.75 mm ²
• maximum	35 mm ²
Connectable conductor cross-section / finely stranded / with core end processing	
• minimum	0.75 mm ²
• maximum	25 mm ²
AWG number / as coded connectable conductor cross section	
• minimum	18
• maximum	4
Tightening torque [lbf·in] / with screw-type terminals	
• minimum	22 lbf·in
• maximum	31 lbf·in
Tightening torque / with screw-type terminals	
• minimum	2.5 N·m
• maximum	3.5 N·m
Position / of power supply cord	Any

Mechanical Design

Height	90 mm
Width	36 mm
Depth	76 mm
Installation depth	70 mm
Number of width units	2
Mounting type	Quick assembly system
Mounting position	any
Net weight	305 g

Environmental conditions

Influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
Ambient temperature	
• minimum	-25 °C
• maximum	55 °C
Ambient temperature / during storage	
• minimum	-40 °C
• maximum	75 °C
Number of test cycles / for environmental testing / acc. to IEC 60068-2-30	6

Certificates

Reference code	
• acc. to DIN EN 61346-2	F
• acc. to DIN EN 81346-2	F



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[Miscellaneous](#)

EG-Konf.

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)<http://www.siemens.com/lowvoltage/catalogs>**Industry Mall (Online ordering system)**<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SY8220-8>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/5SY8220-8>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY8220-8**CAX-Online-Generator**<http://www.siemens.com/cax>**Tender specifications**<http://www.siemens.com/specifications>

