

CIRCUIT BREAKER 230/400V 10KA, 1-POLE, C, 80A, D=70MM



Model	
Product brand name	SENTRON
Product designation	Miniature circuit breaker
General technical data	
Number of poles	1
Number of poles / Note	1P
Tripping characteristic class	C
circuit-breaker / Design	5SY4
Mechanical service life (switching cycles) / typical	20 000
Overvoltage category	3
Voltage	
Type of voltage	AC/DC
Insulation voltage	
<ul style="list-style-type: none"> with single-phase operation / at AC / rated value 	250 V
<ul style="list-style-type: none"> with multi-phase operation / at AC / rated value 	440 V
Supply voltage	
Supply voltage / at AC / rated value	400 V

Supply voltage frequency	
• rated value	50/60 Hz
Protection class	
Protection class IP	IP20, with connected conductors
Energy limiting class	3
Switching capacity	
Switching capacity current	
• at DC / acc. to IEC 60947-2 / rated value	15 kA
• acc. to EN 60898 / rated value	10 kA
• acc. to IEC 60947-2 / rated value	10 kA
Dissipation	
Power loss [W]	
• for rated value of the current / at AC / in hot operating state / per pole	6.7 W
• maximum	6.7 W
Electricity	
Current / at AC / rated value	80 A
Suitability for operation	Mechanical engineering / industry
Product details	
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
Product function	
Product function / neutral conductor switching	No
Short circuit	
Breaking capacity short-circuit current (I_{cn})	
• at AC / acc. to UL 1077 and CSA C22.2 No.235	5 kA
Number	
Number of test cycles / for environmental testing / acc. to IEC 60068-2-30	6

Connections	
Connectable conductor cross-section / stranded	
• minimum	0.75 mm ²
• maximum	35 mm ²
Connectable conductor cross-section	
• solid	
— minimum	0.75 mm ²
— maximum	35 mm ²
• finely stranded / with core end processing	
— minimum	0.75 mm ²
— maximum	25 mm ²
AWG number / as coded connectable conductor cross section	
• minimum	14
• maximum	4
Tightening torque [lbf·in] / with screw-type terminals	
• minimum	22 lbf·in
• maximum	26 lbf·in
Tightening torque / with screw-type terminals	
• minimum	2.5 N·m
• maximum	3 N·m
Position / of power supply cord	Any
Mechanical Design	
Height	90 mm
Width	18 mm
Depth	76 mm
Mounting position	any
Installation depth	70 mm
Number of width units	1
Mounting type	Quick assembly system
Net weight	177 g
Environmental conditions	
Degree of pollution	3
Influence of the surrounding temperature	Max. 95% humidity
Vibration resistance / acc. to IEC 60068-2-6	50m/s ² at 25 to 150Hz and 60m/s ² at 35Hz (4sec)
Ambient temperature	
• minimum	-25 °C
• maximum	55 °C
• during storage / minimum	-40 °C
• during storage / maximum	75 °C
Certificates	

General Product Approval**Test Certificates**[Miscellaneous](#)[Miscellaneous](#)**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=5SY4180-7>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/5SY4180-7>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4180-7**CAX-Online-Generator**<http://www.siemens.com/cax>**Tender specifications**<http://www.siemens.com/specifications>



