

CIRCUIT BREAKER 230/400V 10KA, 1-POLE, B, 50A, 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	B
characteristic / Let-through current characteristic	DS_5SY_B_50
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"> <li>with single-phase operation / at AC / rated value</li> </ul>	250 V
<ul style="list-style-type: none"> <li>with multi-phase operation / at AC / rated value</li> </ul>	440 V
Supply voltage	

Supply voltage / at AC / rated value	400 V
<b>Supply voltage frequency</b>	
• rated value	50/60 Hz

<b>Protection class</b>	
<b>Protection class IP</b>	IP20, with connected conductors
<b>Energy limiting class</b>	3

<b>Switching capacity</b>	
<b>Switching capacity current</b>	
• 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	15 kA

<b>Dissipation</b>	
<b>Power loss [W]</b>	
• for rated value of the current / at AC / in hot operating state / per pole	4.3 W
• maximum	4.3 W

<b>Electricity</b>	
rated current $I_n$ / IEC, DIN/VDE / at 40 Cel	47.5 A
Current / at AC / rated value	50 A
<b>Current limitation characteristic, no. / Let-through energy</b>	DE_5SY_B_50
<b>Suitability for operation</b>	Mechanical engineering / industry

<b>Product details</b>	
Product feature / Touch protection	Yes
<b>Product component</b>	
• combined terminal top	Yes
• combined terminal bottom	Yes
<b>Product feature</b>	
• 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

<b>Product function</b>	
Product function / neutral conductor switching	No

<b>Short circuit</b>	
<b>Breaking capacity short-circuit current (<math>I_{cn}</math>)</b>	
• 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	
<b>Connectable conductor cross-section / stranded</b>	
• minimum	0.75 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
<b>Connectable conductor cross-section</b>	
• solid	
— minimum	0.75 mm <sup>2</sup>
— maximum	35 mm <sup>2</sup>
• finely stranded / with core end processing	
— minimum	0.75 mm <sup>2</sup>
— maximum	25 mm <sup>2</sup>
<b>AWG number / as coded connectable conductor cross section</b>	
• minimum	14
• maximum	4
<b>Tightening torque [lbf·in] / with screw-type terminals</b>	
• minimum	22 lbf·in
• maximum	26 lbf·in
<b>Tightening torque / with screw-type terminals</b>	
• 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	161 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 <sup>2</sup> at 25 to 150Hz and 60m/s <sup>2</sup> at 35Hz (4sec)
<b>Ambient temperature</b>	
• minimum	-25 °C
• maximum	55 °C

- during storage / minimum
- during storage / maximum

-40 °C

75 °C

## Certificates

Equipment marking / acc. to DIN EN 61346-2

F

### General Product Approval



CCC



IMQ



UL



VDE



RCM

[Miscellaneous](#)

Declaration of  
Conformity

Test Certificates

Shipping Approval



EG-Konf.

[Miscellaneous](#)

[Special Test  
Certificate](#)



ABS



BUREAU  
VERITAS



LRS

### Shipping Approval



RINA

## 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=5SY4150-6>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4150-6>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4150-6](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4150-6)

**CAX-Online-Generator**

<http://www.siemens.com/cax>

**Tender specifications**

<http://www.siemens.com/specifications>



