

Miniature circuit breaker 230/400 V 10kA, 1-pole, D, 80 A, D=70 mm



Model	
Product brand name	SENTRON
Product designation	Miniature circuit breaker
Design of the product	5SP Miniature circuit breakers
General technical data	
Number of poles	1
Number of poles / Note	1P
Tripping characteristic class	D
circuit-breaker / Design	5SP4
Mechanical service life (switching cycles) / typical	10 000
Overvoltage category	3
Voltage	
Type of voltage	AC
Insulation voltage	
• at AC / rated value	440 V
• with single-phase operation / at AC / rated value	250 V
• 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 Hz
Protection class	
Protection class IP	IP20 with connected conductors, IP40 in the area of the handle with distribution cover
Switching capacity	
Switching capacity current	
<ul style="list-style-type: none"> <li>• acc. to EN 60898 / rated value</li> </ul>	10 kA
Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	7 W
Electricity	
Tripping residual / rated value / derated current / at 40 Cel	75.2 A
Current / at AC / rated value	80 A
Product details	
Product feature / Touch protection	Yes
Product component	
<ul style="list-style-type: none"> <li>• Tunnel terminals top</li> <li>• Tunnel terminals bottom</li> </ul>	Yes Yes
Product feature	
<ul style="list-style-type: none"> <li>• Properties for main switches in accordance with EN 60204-1</li> <li>• halogen-free</li> <li>• sealable</li> <li>• silicon-free</li> </ul>	Yes Yes Yes Yes
Product extension / can be installed / supplementary devices	Yes
Product function	
Product function / neutral conductor switching	No
Number	
Number of test cycles / for environmental testing / acc. to IEC 60068-2-30	6
Connections	
Connectable conductor cross-section / stranded	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	25 mm <sup>2</sup> 50 mm <sup>2</sup>
<b>Connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	

— minimum	25 mm <sup>2</sup>
— maximum	50 mm <sup>2</sup>
• finely stranded / with core end processing	
— minimum	25 mm <sup>2</sup>
— maximum	35 mm <sup>2</sup>
AWG number / as coded connectable conductor cross section	
• minimum	3
• maximum	1
Tightening torque [lbf·in] / with screw-type terminals	
• minimum	22.1 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	27 mm
Depth	76 mm
Mounting position	any
Installation depth	70 mm
Number of width units	1.5
Net weight	241 g

### Environmental conditions

Degree of pollution	3
Influence of the surrounding temperature	Max. 95% rel. humidity
Shock resistance / acc. to IEC 60068-2-27	150m/s <sup>2</sup> at 11ms half-sine
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)
Ambient temperature	
• minimum	-25 °C
• maximum	55 °C
• during storage / minimum	-40 °C
• during storage / maximum	75 °C

### Certificates

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

Waste electronic equipment must not be disposed as unsorted municipal waste, e.g. household waste. For disposing the waste electronic equipment it is necessary to observe the current local national/international regulations.



<b>General Product Approval</b>	<b>Declaration of Conformity</b>	<b>Test Certificates</b>
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[Special Test Certificate](#)

**Railway**

[Confirmation](#)

**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?mfb=5SP4180-8>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SP4180-8>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SP4180-8](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SP4180-8)

CAx-Online-Generator

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

Tender specifications

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

