



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

Figure similar

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	1
design of pole	1P
tripping characteristic class	C
mechanical service life (operating cycles) typical	10 000
overvoltage category	3
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (Ui)	
• 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
operational current	
• at 30 °C rated value	80 A
• at 40 °C rated value	75.2 A
• at 50 °C rated value	70 A
• at 60 °C rated value	64.8 A
• at AC rated value	80 A
Supply voltage	
supply voltage at AC	400 V
value range of the supply voltage frequency	50/60 Hz
Protection class	
protection class IP	IP20 with connected conductors, IP40 in the area of the handle with distribution cover
Breaking Capacity	
switching capacity current	
• according to EN 60898 rated value	10 kA
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	7 W
suitability for operation	Infrastructure / Industry
Product details	
product feature touch protection	Yes
product component	
• tunnel terminals top	Yes

• tunnel terminals 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 installable supplementary devices	Yes

### Connections

<b>connectable conductor cross-section solid</b>	
• minimum	25 mm <sup>2</sup>
• maximum	50 mm <sup>2</sup>
<b>connectable conductor cross-section stranded</b>	
• minimum	25 mm <sup>2</sup>
• maximum	50 mm <sup>2</sup>
<b>connectable conductor cross-section finely stranded with core end processing</b>	
• minimum	25 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
• minimum	3
• maximum	1
<b>tightening torque [lbf-in] with screw-type terminals</b>	
• minimum	22.1 lbf-in
• maximum	31 lbf-in
<b>tightening torque with screw-type terminals</b>	
• minimum	2.5 N·m
• maximum	3.5 N·m
position of power supply cord	Any

### Mechanical Design

<b>height</b>	90 mm
<b>width</b>	27 mm
<b>depth</b>	76 mm
<b>installation depth</b>	70 mm
<b>number of modular width units</b>	1.5
<b>fastening method</b>	DIN rail
<b>mounting position</b>	any
<b>net weight</b>	259.1 g

### Environmental conditions

<b>influence of the surrounding temperature</b>	Max. 95% rel. humidity
shock resistance according to IEC 60068-2-27	150m/s <sup>2</sup> at 11ms half-sine
vibration resistance according 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 during storage</b>	
• minimum	-40 °C
• maximum	75 °C

### Environmental footprint

Environmental Product Declaration (EPD)	Yes
global warming potential [CO <sub>2</sub> eq] total	54.3 kg
global warming potential [CO <sub>2</sub> eq] during manufacturing	1.06 kg
global warming potential [CO <sub>2</sub> eq] during operation	53.3 kg
global warming potential [CO <sub>2</sub> eq] after end of life	-0.046 kg

### Approvals Certificates

#### General Product Approval



General Product Ap-

Maritime application

other

Railway



[Miscellaneous](#)

[Confirmation](#)

[Confirmation](#)

Dangerous goods

Environment

[Transport Information](#)



[Environmental Con-  
firmations](#)

[Environmental Con-  
firmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=5SP4180-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SP4180-7>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SP4180-7](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SP4180-7)

CAX-Online-Generator

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

Tender specifications

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



