## **SIEMENS**

Data sheet 5SY4180-7CC



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

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	1
design of pole	1P
tripping characteristic class	С
mechanical service life (operating cycles) typical	10 000
overvoltage category	III
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (Ui)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	250 V
<ul> <li>with multi-phase operation at AC rated value</li> </ul>	440 V
supply voltage with single-phase operation at AC rated value	230 V
operational current	
<ul> <li>at 40 °C rated value</li> </ul>	75.2 A
<ul> <li>at 50 °C rated value</li> </ul>	70.08 A
<ul> <li>at 55 °C rated value</li> </ul>	67.36 A
<ul> <li>at AC rated value</li> </ul>	80 A
Supply voltage	
supply voltage	
• at AC	230 V
at DC rated value	60 V
value range of the supply voltage frequency	50/60 Hz
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
Breaking Capacity	
switching capacity current	
<ul> <li>according to EN 60898 rated value</li> </ul>	10 kA
according to IEC 60947-2 rated value	10 kA
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	5.6 W
suitability for operation	Infrastructure / Industry
Product details	

product feature touch protection	Yes
product component	
<ul> <li>combined terminal top</li> </ul>	Yes
combined terminal bottom	Yes
neutral conductor switching	No
product feature	
<ul> <li>properties for main switches in accordance with EN 60204-1</li> </ul>	Yes
halogen-free	Yes
• sealable	Yes
• silicon-free	Yes
product extension installable supplementary devices	Yes
Connections	
connectable conductor cross-section solid	
minimum	0.75 mm²
• maximum	35 mm²
connectable conductor cross-section stranded	
• minimum	0.75 mm²
maximum	35 mm²
connectable conductor cross-section finely stranded with core end processing	
• minimum	0.75 mm <sup>2</sup>
maximum	25 mm <sup>2</sup>
tightening torque [lbf-in] with screw-type terminals	
• minimum	22 lbf-in
- magazina uma	31 lbf·in
maximum	31 101-111
tightening torque with screw-type terminals	31 101:111
	2.5 N·m
tightening torque with screw-type terminals	
tightening torque with screw-type terminals  • minimum	2.5 N·m
tightening torque with screw-type terminals  • minimum  • maximum	2.5 N·m 3.5 N·m
tightening torque with screw-type terminals	2.5 N·m 3.5 N·m
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  //echanical Design	2.5 N·m 3.5 N·m Any
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  Mechanical Design  height	2.5 N·m 3.5 N·m Any
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  Mechanical Design  height  width	2.5 N·m 3.5 N·m Any  90 mm 18 mm
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  Mechanical Design  height  width  depth	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  //echanical Design  height  width  depth  installation depth  number of modular width units	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  //echanical Design  height width depth installation depth number of modular width units fastening method	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  Mechanical Design  height  width  depth  installation depth  number of modular width units  fastening method  mounting position	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  Mechanical Design  height  width  depth  installation depth  number of modular width units  fastening method  mounting position  net weight	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1
tightening torque with screw-type terminals	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  flechanical Design  height  width  depth  installation depth  number of modular width units  fastening method  mounting position  net weight  invironmental conditions  standard	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  //echanical Design  height  width  depth  installation depth  number of modular width units  fastening method  mounting position  net weight  environmental conditions  standard  vibration resistance according to IEC 60068-2-6	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  Mechanical Design  height  width depth installation depth number of modular width units fastening method mounting position net weight  Environmental conditions  standard  vibration resistance according to IEC 60068-2-6 ambient temperature during operation	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g  IEC / EN 60898-1 ±1mm at 5 to 25 Hz; 50 m/s² at 25 to 150 Hz and 60 m/s² at 35 Hz (4 sec)
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  Acchanical Design  height  width  depth  installation depth  number of modular width units  fastening method  mounting position  net weight  invironmental conditions  standard  vibration resistance according to IEC 60068-2-6  ambient temperature during operation  • minimum	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g  IEC / EN 60898-1 ±1mm at 5 to 25 Hz; 50 m/s² at 25 to 150 Hz and 60 m/s² at 35 Hz (4 sec)  -25 °C
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  Mechanical Design  height  width  depth  installation depth  number of modular width units  fastening method  mounting position  net weight  Environmental conditions  standard  vibration resistance according to IEC 60068-2-6  ambient temperature during operation  • minimum  • maximum	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g  IEC / EN 60898-1 ±1mm at 5 to 25 Hz; 50 m/s² at 25 to 150 Hz and 60 m/s² at 35 Hz (4 sec)
tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  //echanical Design  height width depth installation depth number of modular width units fastening method mounting position net weight  invironmental conditions standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum  • maximum  ambient temperature during storage	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g  IEC / EN 60898-1 ±1mm at 5 to 25 Hz; 50 m/s² at 25 to 150 Hz and 60 m/s² at 35 Hz (4 sec)  -25 °C 55 °C
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tightening torque with screw-type terminals  • minimum  • maximum  position of power supply cord  //echanical Design  height width depth installation depth number of modular width units fastening method mounting position net weight  invironmental conditions standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum  • maximum  ambient temperature during storage	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g  IEC / EN 60898-1 ±1mm at 5 to 25 Hz; 50 m/s² at 25 to 150 Hz and 60 m/s² at 35 Hz (4 sec)  -25 °C 55 °C
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tightening torque with screw-type terminals	2.5 N·m 3.5 N·m Any  90 mm 18 mm 76 mm 70 mm 1 Quick assembly system any 160 g  IEC / EN 60898-1 ±1mm at 5 to 25 Hz; 50 m/s² at 25 to 150 Hz and 60 m/s² at 35 Hz (4 sec)  -25 °C 55 °C  -40 °C 75 °C 28  Yes 13.3 kg 0.713 kg







Confirmation

**Miscellaneous** 



other Railway Environment Environmental Confirmations Miscellaneous Environmental Confirmations Confirmation Confirmation

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=5SY4180-7CC

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

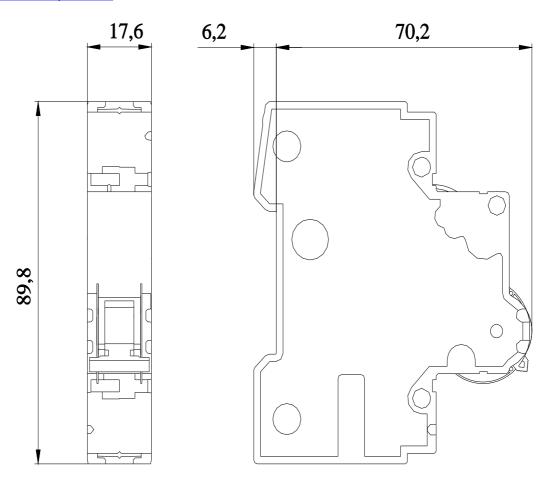
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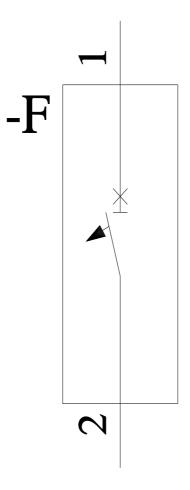
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SY4180-7CC">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SY4180-7CC</a>

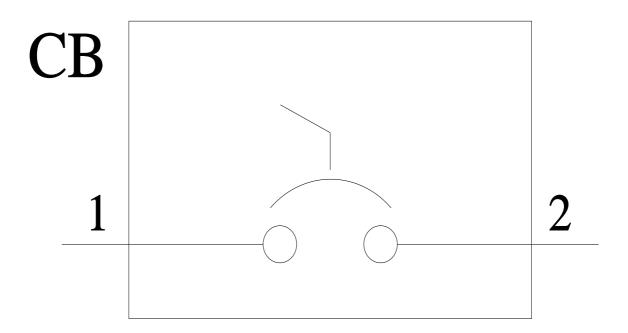
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 







last modified: 7/18/2024 🖸