SIEMENS

Data sheet 5SP4180-8

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
Degree of pollution	3

Voltage	
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

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Supply voltage	
Type of voltage	AC
Operating current / at AC / rated value	80 A
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	
• acc. 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

Current	
Tripping residual / rated value / derated current / at 40 Cel	75.2 A

Product details	
Product feature / Touch protection	Yes
Product component	
• Tunnel terminals top	Yes
• Tunnel terminals 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

Connections	
Connectable conductor cross-section / solid	
• minimum	25 mm²
• maximum	50 mm²
Connectable conductor cross-section / stranded	
• minimum	25 mm²
• maximum	50 mm²
Connectable conductor cross-section / finely stranded / with core end processing	
• minimum	25 mm²
• maximum	35 mm²

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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
Installation depth	70 mm
Number of width units	1.5
Mounting position	any
Net weight	241 g

Environmental conditions

Influence of the surrounding temperature	Max. 95% rel. humidity
Shock resistance / acc. to IEC 60068-2-27	150m/s² at 11ms half-sine
Vibration resistance / acc. to IEC 60068-2-6	50m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)
Ambient temperature	
• minimum	-25 °C
• maximum	55 °C
Ambient temperature / during storage	
• minimum	-40 °C
• maximum	75 °C

Certificates

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

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General Product Approval				Declaration of Conformity	Test Certificates
CEBEC	CCC	UR	VDE	EG-Konf.	Special Test Certificate

Shipping Approval	other	Railway
LRS	Miscellaneous	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?mlfb=5SP4180-8

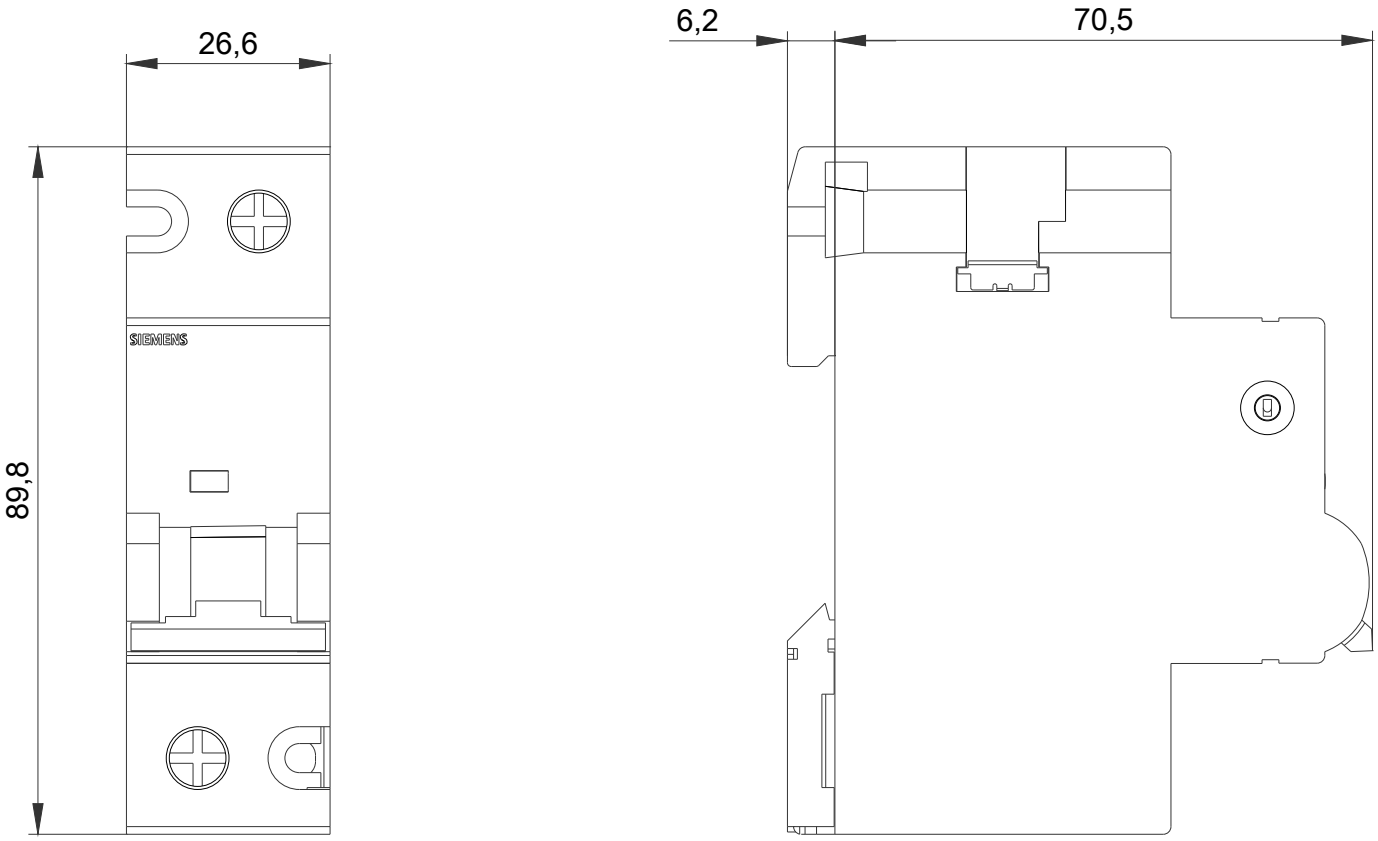
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SP4180-8

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SP4180-8

CAx-Online-Generator
http://www.siemens.com/cax

Tender specifications
http://www.siemens.com/specifications

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