SIEMENS

Data sheet 5SY5220-6

Circuit breaker Universal current 440 V DC 400 V AC 10kA, 2-pole, B, 20A



Model	
Product brand name	SENTRON
Product designation	Miniature circuit breaker

General technical data	
Number of poles	2
Number of poles / Note	2P
Tripping characteristic class	B
circuit-breaker / Design	5SY5
Mechanical service life (switching cycles) / typical	10 000
Overvoltage category	III
Degree of pollution	3

Voltage	
Insulation voltage	
• at DC / rated value	250 V
• with single-phase operation / at AC / rated value	440 V
• with multi-phase operation / at AC / rated value	440 V

Supply voltage

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Type of voltage	AC/DC
Operating current / at AC / rated value	20 A
Supply voltage	
• at AC / rated value	400 V
• at DC / rated value	440 V
Operating voltage	
• at DC / rated value / maximum	500 V
Supply voltage frequency	
• rated value	50/60 Hz

Protection class	
Protection class IP	IP20, with connected conductors

Switching capacity	
Switching capacity current	
• at DC / acc. to IEC 60947-2 / rated value	15 kA
• acc. to EN 60898 / rated value	10 kA
Energy limiting class	3

Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	2.2 W

Current	
Tripping residual / rated value / derated current / at 40 Cel	18.78 A
Suitability for operation	universal current

Product details	
Product function / neutral conductor switching	No
Product feature / Touch protection	Yes
Product component	
• combined terminal top	Yes
• combined terminal 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

Short circuit	
Breaking capacity short-circuit current (Icn)	
• at DC / acc. to EN 60898-2	10 kA

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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 mm²
• maximum	25 mm²
AWG number / as coded connectable conductor cross section	
• minimum	18
• maximum	4
Tightening torque [lbf·in] / with screw-type terminals	
• minimum	22 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	AC as required, observe DC polarity

Mechanical Design	
Height	90 mm
Width	36 mm
Depth	76 mm
Installation depth	70 mm
Number of width units	2
Mounting type	Quick assembly system
Mounting position	any
Net weight	328 g

Environmental conditions	
Influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
Ambient temperature	
• minimum	-40 °C
• maximum	70 °C
Ambient temperature / during storage	
• minimum	-40 °C
• maximum	75 °C
Number of test cycles / for environmental testing / acc. to IEC 60068-2-30	6

Certificates

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

General Product Approval				Declaration of Conformity	Test Certificates
			Miscellaneous		Miscellaneous
CCC	UR	VDE		EG-Konf.	

Test Certificates	Railway	
Special Test Certificate	Confirmation	Vibration and Shock

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=5SY5220-6

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SY5220-6

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5220-6

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

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

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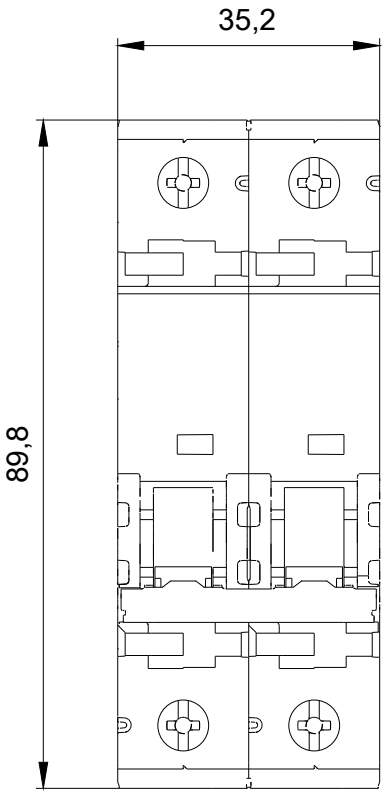

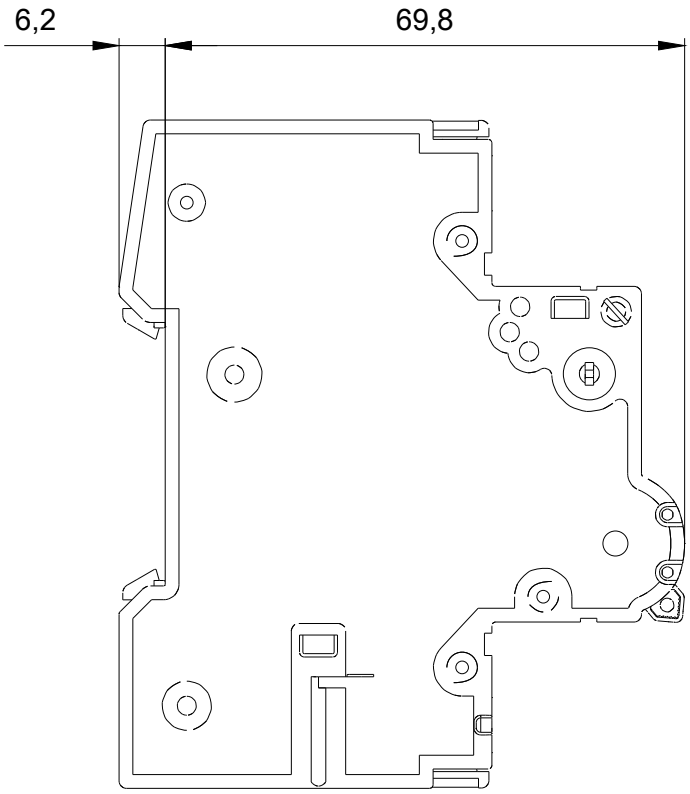

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