SIEMENS

Data sheet

5SY4220-5

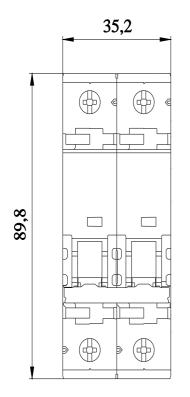


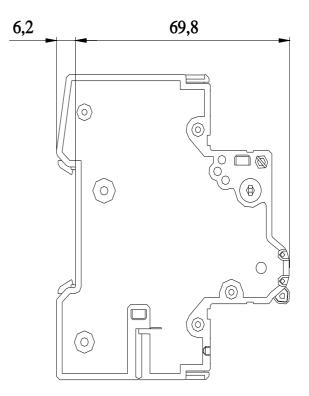
Miniature circuit breaker 400 V 10kA, 2-pole, A, 20A, D=70 mm

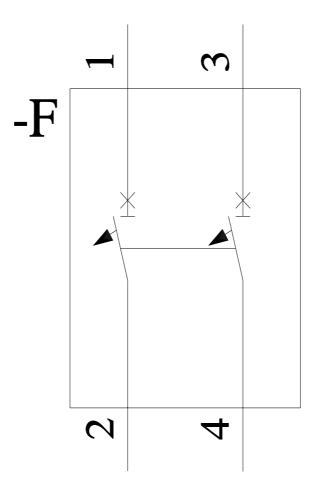
product brand name SENTRON product designation Miniature circuit breaker Ceneral technical data number of poles 2 design of pole 2P tripping characteristic class A mechanical service life (operating cycles) typical 10 000 overvoltage category III degree of pollution 3 Voltage AC type of voltage of the operating voltage AC insulation voltage (Ui) 440 V • with single-phase operation at AC rated value 440 V supply voltage with single-phase operation at AC rated value 230 V value Supply voltage • at AC rated value 400 V • at AC rated value 60 V value range of the supply voltage frequency 50/60 Hz operating voltage frequency 50/60 Hz value range of the supply voltage frequency 72 V Protection class IP IP20, with connected conductors Switching capacity IP20, with connected conductors	Model						
General technical data number of poles 2 design of pole 2P tripping characteristic class A mechanical service life (operating cycles) typical 10 000 overvoltage category III degree of pollution 3 Voltage AC insulation voltage (Ui) • with single-phase operation at AC rated value • with multi-phase operation at AC rated value 440 V • with multi-phase operation at AC rated value 440 V • with multi-phase operation at AC rated value 440 V • with multi-phase operation at AC rated value 440 V • with multi-phase operation at AC rated value 440 V • with multi-phase operation at AC rated value 440 V • with single-phase operation at AC rated value 440 V • with single-phase operation at AC rated value 400 V • at AC rated value 60 V • at AC rated value 60 V value range of the supply voltage frequency 50/60 Hz operating voltage at DC rated value maximum 72 V Protection class IP IP20, with connected conductors Switching capacity current I	product brand name	SENTRON					
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degree of pollution 3 Voltage AC type of voltage of the operating voltage insulation voltage (Ui) AC • with single-phase operation at AC rated value 440 V • with multi-phase operation at AC rated value 440 V • with multi-phase operation at AC rated value 440 V supply voltage with single-phase operation at AC rated 230 V supply voltage 230 V • at AC rated value 400 V • at AC rated value 60 V value range of the supply voltage frequency 50/60 Hz operating voltage at DC rated value maximum 72 V Protection class IP IP20, with connected conductors Switching capacity switching capacity current		10 000					
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• at AC rated value 400 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 Protection class IP20, with connected conductors switching capacity switching capacity current	Supply voltage						
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operating voltage at DC rated value maximum 72 V Protection class protection class IP IP20, with connected conductors Switching capacity switching capacity current	 at DC rated value 	60 V					
Protection class protection class IP IP20, with connected conductors Switching capacity switching capacity current							
protection class IP IP20, with connected conductors Switching capacity switching capacity current	operating voltage at DC rated value maximum	72 V					
Switching capacity switching capacity current	Protection class						
switching capacity current	protection class IP	IP20, with connected conductors					
	Switching capacity						
at DC according to IEC 60947-2 rated value 15 kA	switching capacity current						
	 at DC according to IEC 60947-2 rated value 	15 kA					
according to EN 60898 rated value 10 kA	 according to EN 60898 rated value 	10 kA					
according to IEC 60947-2 rated value 20 kA	5	20 kA					
Dissipation							
power loss [W] for rated value of the current at AC in hot operating state per pole 2.5 W	power loss [W] for rated value of the current at AC in hot operating state per pole	2.5 W					
Current	Current						
operational current	operational current						
• at 35 °C rated value 20 A	 at 35 °C rated value 	20 A					
• at 40 °C rated value 18.78 A	 at 40 °C rated value 	18.78 A					
• at 45 °C rated value 18.14 A	 at 45 °C rated value 	18.14 A					
• at 50 °C rated value 17.48 A							
• at 55 °C rated value 16.8 A	• at 55 °C rated value	16.8 A					

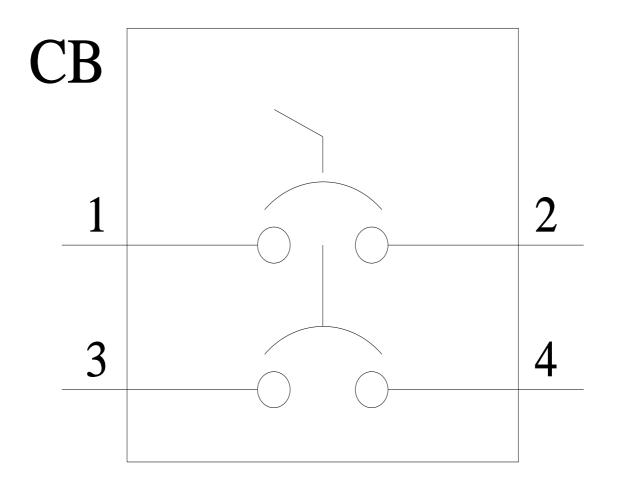
a at 60 °C rated value	40.00 Å
at 60 °C rated value	16.08 A 20 A
at AC rated value	
suitability for operation	Mechanical engineering / industry
Product details	
product component	
 combined terminal top 	Yes
 combined terminal bottom 	Yes
 neutral conductor switching 	No
product feature	
 properties for main switches in accordance with EN 60204-1 	Yes
 halogen-free 	Yes
• sealable	Yes
 silicon-free 	Yes
product extension installable supplementary devices	Yes
Short circuit	
short-circuit current breaking capacity (Icn)	
• at AC according to UL 1077 and CSA C22.2 No.235	5 kA
Connections	
connectable conductor cross-section solid	
• minimum	0.75 mm ²
• maximum	35 mm²
connectable conductor cross-section stranded	
• minimum	0.75 mm ²
• maximum	35 mm²
connectable conductor cross-section finely stranded with core end processing	
• minimum	0.75 mm ²
• 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	Any
Mechanical Design	
height	90 mm
width	36 mm
depth	76 mm
	70 mm
installation depth number of modular width units	2
fastening method	Quick assembly system
mounting position	any
net weight	329 g
Environmental conditions	
influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
standard	IEC / EN 60898-1, IEC / EN 60947-2 / UL1077
vibration resistance according to IEC 60068-2-6	±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz
ambient temperature during operation	
• minimum	-40 °C
• maximum	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	75 °C
number of test cycles for environmental testing according to IEC 60068-2-30	6
General Product Approval	
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<u>Confirmation</u>	SAN UR	VDE	<u>Miscellaneous</u>	EAC	<u>Miscellaneous</u>		
Declaration of Confor	mity	Test Certificates		Marine / Shipping			
CE UK Special Test Certific- ate Miscellaneous Bis Image: Special Test Certific- ate Miscellaneous							
other			Railway				
Environmental Con- Confirmation Miscellaneous Vibration and Shock Confirmation 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=5SY4220-5 Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/5SY4220-5 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams,) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4220-5 CAx-Online-Generator http://www.siemens.com/cax Tender specifications http://www.siemens.com/specifications							









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