## **SIEMENS**

Data sheet 5SY4210-5



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

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
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	
type of voltage of the operating voltage	AC
insulation voltage (Ui)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	440 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
Supply voltage	
supply voltage	
<ul> <li>at AC rated value</li> </ul>	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	
protection class IP	IP20, with connected conductors
Switching capacity	
switching capacity current	
<ul> <li>at DC according to IEC 60947-2 rated value</li> </ul>	15 kA
<ul> <li>according to EN 60898 rated value</li> </ul>	10 kA
<ul> <li>according to IEC 60947-2 rated value</li> </ul>	20 kA
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	2 W
Product details	
product component	
<ul> <li>combined terminal top</li> </ul>	Yes
<ul> <li>combined terminal bottom</li> </ul>	Yes
neutral conductor switching	No
product feature	
<ul> <li>properties for main switches in accordance with EN 60204-1</li> </ul>	Yes

<ul><li>halogen-free</li></ul>	Yes
• sealable	Yes
• silicon-free	Yes
product extension installable supplementary devices	Yes
Product function	
set values setting current (li) for I-tripping	2,5
reference value setting current (li) for l-tripping	x In
Short circuit	
short-circuit current breaking capacity (Icn)	
<ul> <li>at AC according to UL 1077 and CSA C22.2 No.235</li> </ul>	5 kA
Connections	
connectable conductor cross-section solid	
• minimum	0.75 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section stranded	
• minimum	0.75 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
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
	3.5 N·m
maximum	0.0 14 111
position of power supply cord	Any
position of power supply cord	
position of power supply cord  Mechanical Design	Any
position of power supply cord  Mechanical Design  height	Any 90 mm
position of power supply cord  Mechanical Design  height  width	Any 90 mm 36 mm
position of power supply cord  Mechanical Design  height width depth	90 mm 36 mm 76 mm
position of power supply cord  Mechanical Design  height width depth installation depth	90 mm 36 mm 76 mm 70 mm
position of power supply cord  Mechanical Design  height width depth installation depth number of modular width units	90 mm 36 mm 76 mm 70 mm
position of power supply cord  Mechanical Design  height width depth installation depth number of modular width units fastening method	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system
position of power supply cord  Mechanical Design  height width depth installation depth number of modular width units fastening method mounting position	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any
position of power supply cord  Mechanical Design  height width depth installation depth number of modular width units fastening method mounting position net weight	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any
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	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g
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 influence of the surrounding temperature	Any  90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
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 influence of the surrounding temperature standard	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum • maximum	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum • maximum ambient temperature during storage	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum  • maximum ambient temperature during storage • minimum	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum • maximum ambient temperature during storage • minimum • maximum number of test cycles for environmental testing according to IEC	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C  -40 °C 75 °C
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C  -40 °C 75 °C
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum • maximum  ambient temperature during storage • minimum • maximum  number of test cycles for environmental testing according to IEC 60068-2-30  Environmental footprint	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C  -40 °C 75 °C 6
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum  • maximum  ambient temperature during storage  • minimum  • maximum  number of test cycles for environmental testing according to IEC 60068-2-30  Environmental Product Declaration(EPD)	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C  -40 °C 75 °C 6
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum  • maximum  ambient temperature during storage  • minimum  • maximum  number of test cycles for environmental testing according to IEC 60068-2-30  Environmental Product Declaration(EPD) Global Warming Potential [CO2 eq] total	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C  -40 °C 75 °C 6
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation  • minimum  • maximum  ambient temperature during storage  • minimum  • maximum  number of test cycles for environmental testing according to IEC 60068-2-30  Environmental Froduct Declaration(EPD) Global Warming Potential [CO2 eq] total Global Warming Potential [CO2 eq] during manufacturing	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C  -40 °C 75 °C 6
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 influence of the surrounding temperature standard vibration resistance according to IEC 60068-2-6 ambient temperature during operation • minimum • maximum ambient temperature during storage • minimum • maximum  number of test cycles for environmental testing according to IEC 60068-2-30  Environmental footprint Environmental Product Declaration(EPD) Global Warming Potential [CO2 eq] during manufacturing Global Warming Potential [CO2 eq] during operation	90 mm 36 mm 76 mm 70 mm 2 Quick assembly system any 319 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C  -40 °C 75 °C 6













General Product Approval

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping

**Miscellaneous** 





**Miscellaneous** 

Special Test Certificate



Marine / Shipping

other

Railway

**Environment** 



**Miscellaneous** 

Confirmation

Vibration and Shock

Confirmation

Environmental Confirmations

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=5SY4210-5

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

https://support.industry.siemens.com/cs/ww/en/ps/5SY4210-5

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SY4210-5

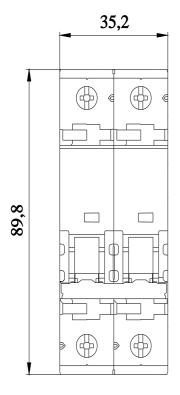
**CAx-Online-Generator** 

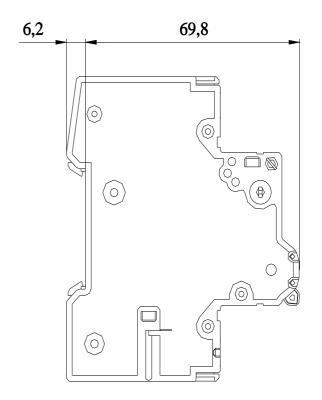
http://www.siemens.com/cax

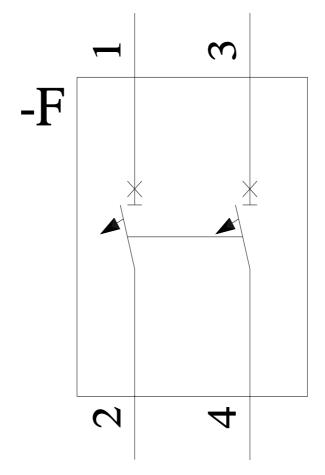
**Tender specifications** 

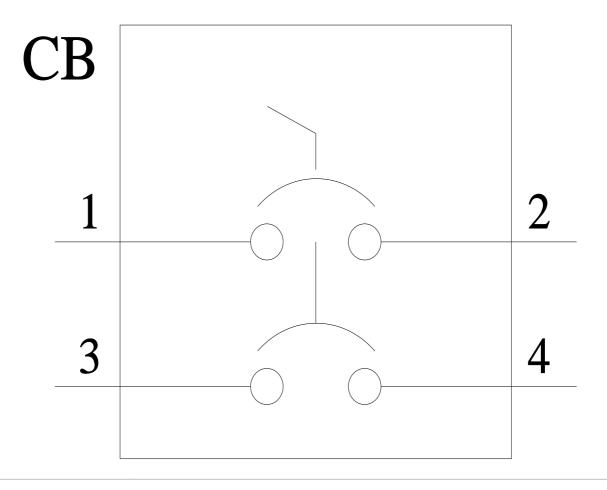
http://www.siemens.com/specifications











last modified: 11/3/2023 🖸

