## SIEMENS

## Data sheet

## 5SY6113-7



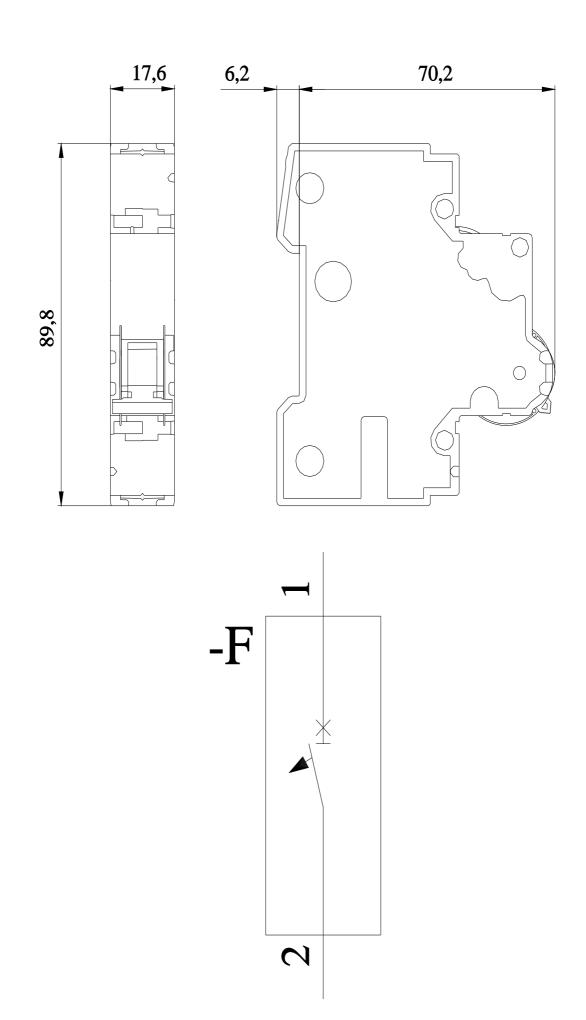
Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 13 A, D=70 mm

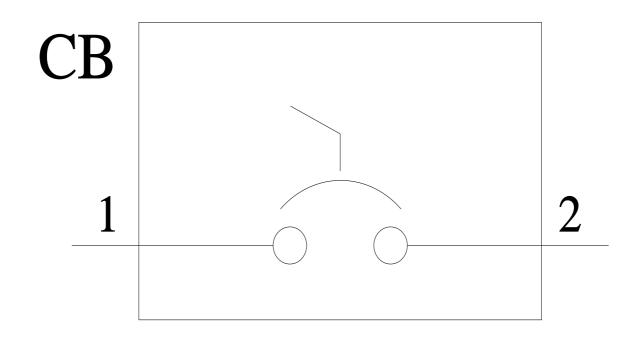
Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	1
design of pole	1P
tripping characteristic class	С
mechanical service life (operating cycles) typical	10 000
overvoltage category	III
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (Ui)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	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
operational current	
• at 40 °C rated value	12.38 A
• at 50 °C rated value	11.73 A
• at 55 °C rated value	11.38 A
at AC rated value	13 A
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
Breaking 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>	6 kA
<ul> <li>according to IEC 60947-2 rated value</li> </ul>	15 kA
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	1.4 W
Product details	
product component	

combined terminal top	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
Product function	
set values setting current (li) for I-tripping	8
reference value setting current (Ii) for I-tripping	x In
Short circuit	A 111
short-circuit current breaking capacity (Icn)	E kA
at AC according to UL 1077 and CSA C22.2 No.235	5 kA
Connections	
connectable conductor cross-section solid	0.75 mm <sup>2</sup>
• minimum	0.75 mm <sup>2</sup>
maximum	35 mm²
connectable conductor cross-section stranded	0.75 mm²
• minimum	0.75 mm <sup>2</sup>
• 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>
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
	Any
Mechanical Design	00 mm
height	90 mm
height width	18 mm
height width depth	18 mm 76 mm
height width depth installation depth	18 mm 76 mm 70 mm
height width depth installation depth number of modular width units	18 mm 76 mm 70 mm 1
height width depth installation depth number of modular width units fastening method	18 mm 76 mm 70 mm 1 Quick assembly system
height width depth installation depth number of modular width units fastening method mounting position	18 mm 76 mm 70 mm 1 Quick assembly system any
height width depth installation depth number of modular width units fastening method mounting position net weight	18 mm 76 mm 70 mm 1 Quick assembly system
height         width         depth         installation depth         number of modular width units         fastening method         mounting position         net weight         Environmental conditions	18 mm 76 mm 70 mm 1 Quick assembly system any 152 g
height         width         depth         installation depth         number of modular width units         fastening method         mounting position         net weight         Environmental conditions         influence of the surrounding temperature	18 mm         76 mm         70 mm         1         Quick assembly system         any         152 g         max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
height         width         depth         installation depth         number of modular width units         fastening method         mounting position         net weight         Environmental conditions         influence of the surrounding temperature         standard	18 mm         76 mm         70 mm         1         Quick assembly system         any         152 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
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	18 mm         76 mm         70 mm         1         Quick assembly system         any         152 g         max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
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	18 mm 76 mm 70 mm 1 Quick assembly system any 152 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/s <sup>2</sup> at 25 to 150Hz
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	18 mm         76 mm         70 mm         1         Quick assembly system         any         152 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         -25 °C
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	18 mm 76 mm 70 mm 1 Quick assembly system any 152 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/s <sup>2</sup> at 25 to 150Hz
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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	18 mm 76 mm 70 mm 1 Quick assembly system any 152 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 -25 °C 55 °C -40 °C
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	18 mm         76 mm         70 mm         1         Quick assembly system         any         152 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         -25 °C         55 °C         -40 °C         75 °C
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	18 mm         76 mm         70 mm         1         Quick assembly system         any         152 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         -25 °C         55 °C         -40 °C         75 °C         6
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	18 mm         76 mm         70 mm         1         Quick assembly system         any         152 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         -25 °C         55 °C         -40 °C         75 °C

Global Warming Poter	ntial [CO2 eq] during manu	facturing 0.683 k	g		
Global Warming Potential [CO2 eq] during operation		ition 7.83 kg	7.83 kg		
Global Warming Potential [CO2 eq] after end of life		life -0.0048	-0.0048 kg		
Approvals Certificates					
General Product App	proval				
<u>Confirmation</u>	CE EG-Konf.	UK CA			<b>SAN</b> UR
General Product App	proval				EMV
	<u>Miscellaneous</u>	KC	EHC	<u>Miscellaneous</u>	RCM
Test Certificates	Marine / Shipping				
<u>Miscellaneous</u>	ABS	BUREAU VERITAS		Lloyd's Register urs	RINA
other		Environment			
<u>Confirmation</u>	<u>Miscellaneous</u>	Environmental Con- firmations			
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=5SY6113-7
Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/5SY6113-7
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams,) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY6113-7
CAx-Online-Generator http://www.siemens.com/cax
Tender specifications http://www.siemens.com/specifications





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