## **SIEMENS**

**Data sheet** 5SY5116-7



Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 16A

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/DC
insulation voltage (Ui)	
at DC rated value	250 V
<ul> <li>with single-phase operation at AC rated value</li> </ul>	440 V
with multi-phase operation at AC rated value	440 V
supply voltage with single-phase operation at AC rated value	230 V
Supply voltage	
supply voltage	
at AC rated value	400 V
at DC rated value	220 V
value range of the supply voltage frequency	50/60 Hz
operating voltage at DC rated value maximum	250 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
according to EN 60898 rated value	10 kA
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	1.6 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	

60204-1	
<ul><li>halogen-free</li></ul>	Yes
• sealable	Yes
• silicon-free	Yes
product extension installable supplementary devices	Yes
Short circuit	
short-circuit current breaking capacity (Icn)	
<ul> <li>at DC according to EN 60898-2</li> </ul>	10 kA
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
Machanical Paging	
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
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
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 any 144 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 144 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 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, 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 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, 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 ambient temperature during operation	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² 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 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL 1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -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	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL 1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -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	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °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	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °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	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °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	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °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 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °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  Environmental Product Declaration(EPD)	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °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  Environmental footprint Environmental Product Declaration(EPD) Global Warming Potential [CO2 eq] total	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL 1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °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  Environmental footprint Environmental Product Declaration(EPD) Global Warming Potential [CO2 eq] during manufacturing Global Warming Potential [CO2 eq] during operation global warming potential [CO2 eq] after end of life	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °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  Environmental footprint  Environmental Product Declaration(EPD) Global Warming Potential [CO2 eq] during manufacturing Global Warming Potential [CO2 eq] during operation	18 mm 76 mm 70 mm 1 Quick assembly system any 144 g  max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077 ±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz  -40 °C 70 °C  -40 °C 75 °C 6  Yes 13.3 kg 0.73 kg 12.7 kg













General Product Approval  Declaration of Conformity	Test Certificates	Marine / Shipping	other
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**Miscellaneous** 





Special Test Certificate



**Miscellaneous** 

other	Railway		Dangerous Good	Environment
Confirmation	Confirmation	Vibration and Shock	Transport Information	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=5SY5116-7

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

https://support.industry.siemens.com/cs/ww/en/ps/5SY5116-7

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SY5116-7

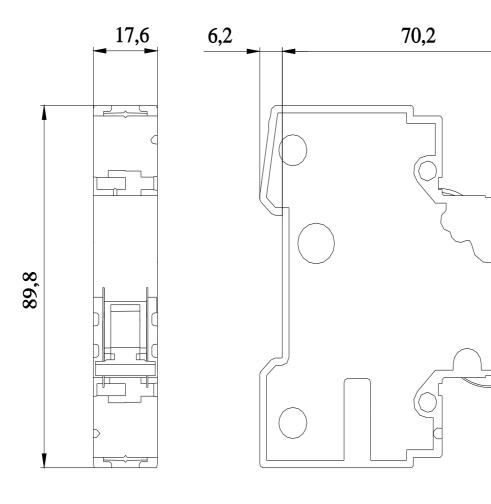
**CAx-Online-Generator** 

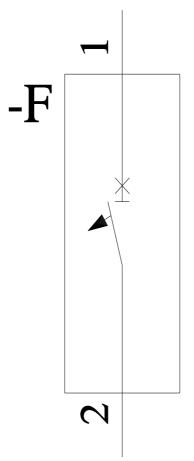
http://www.siemens.com/cax

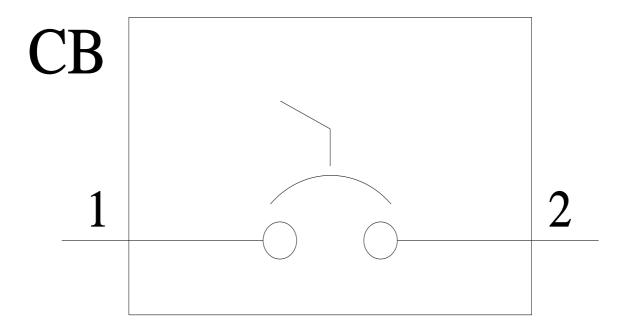
**Tender specifications** 

http://www.siemens.com/specifications









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