## **SIEMENS**

Data sheet 5SY4120-6



Miniature circuit breaker 230/400 V 10kA, 1-pole, B, 20 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	В	
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	
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	
energy limitation class	3	
Dissipation		
power loss [W] for rated value of the current at AC in hot operating state per pole	2.2 W	
Current		
operational current		
● at 35 °C rated value	20 A	
● at 40 °C rated value	18.78 A	
<ul> <li>at 45 °C rated value</li> </ul>	18.14 A	
<ul> <li>at 50 °C rated value</li> </ul>	17.48 A	
<ul> <li>at 55 °C rated value</li> </ul>	16.8 A	

a at 60 °C rated value	16.08 A
<ul> <li>at 60 °C rated value</li> <li>at AC rated value</li> </ul>	20 A
suitability for operation	Mechanical engineering / industry
Product details	Wedianical engineering / industry
product component  • combined terminal top	Yes
combined terminal top     combined terminal bottom	Yes
neutral conductor switching	No
product feature	INO
<ul> <li>product leature</li> <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
Short circuit	
short-circuit current breaking capacity (Icn)	
• at AC according to UL 1077 and CSA C22.2 No.235	5 kA
Connections	O IVA
connectable conductor cross-section solid  • minimum	0.75 mm²
maximum     maximum	35 mm <sup>2</sup>
connectable conductor cross-section stranded	35 11111
minimum	0.75 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section finely stranded with	33 11111
core end processing	
• minimum	0.75 mm <sup>2</sup>
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
<ul><li>maximum</li></ul>	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	18 mm
depth	76 mm
installation depth	70 mm
number of modular width units	1
fastening method	Quick assembly system
mounting position	any
net weight	165 g
Environmental conditions	050/ 1 5500
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	40 °C
• minimum	-40 °C
maximum  ambient temperature during storage	70 °C
ambient temperature during storage	40 °C
minimum     maximum	-40 °C 75 °C
number of test cycles for environmental testing according	6
to IEC 60068-2-30	
General Product Approval	
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**General Product Approval** 

**EMC** 

**Declaration of Conformity** 

**Test Certificates** 



**Miscellaneous** 







Special Test Certificate

**Test Certificates** 

Marine / Shipping

**Miscellaneous** 











other

Railway

Environmental Confirmations

**Miscellaneous** 

Vibration and Shock

Confirmation

## 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=5SY4120-6

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

https://support.industry.siemens.com/cs/ww/en/ps/5SY4120-6

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

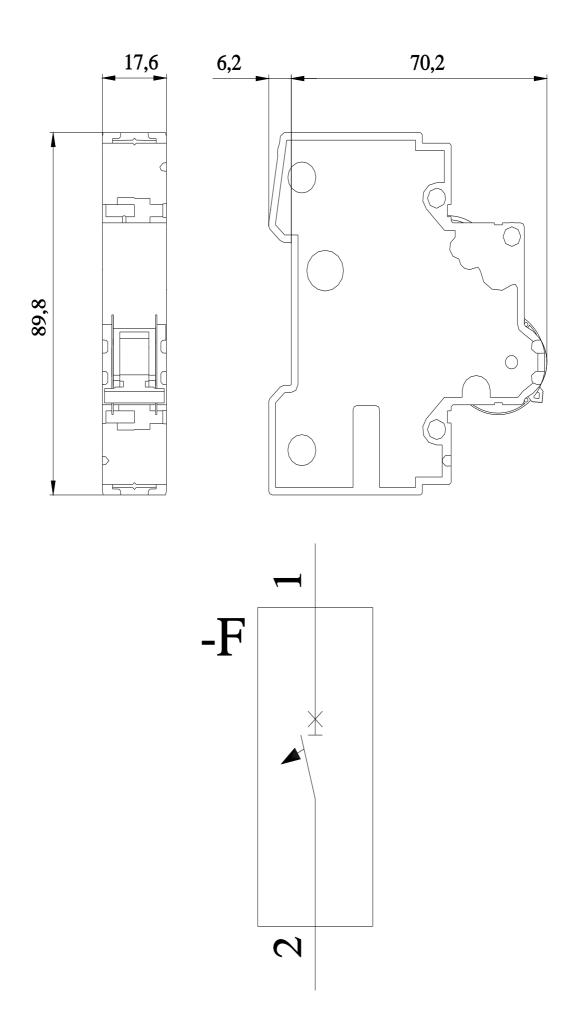
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SY4120-6

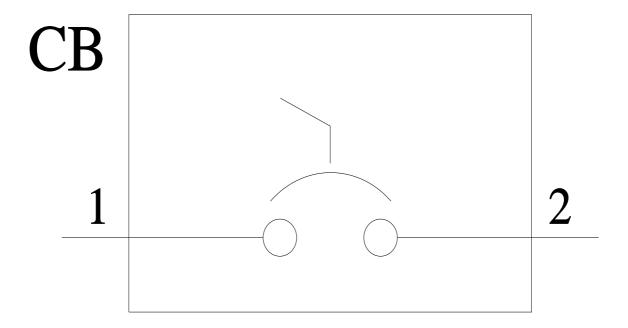
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications





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