## **SIEMENS**

Data sheet 5SJ4102-7HG40



Miniature circuit breaker 240 V 14kA, 1-pole, C, 2A, D=70 mm according to UL 489, equal polarity

product brand name product designation Miniature circuit breakers design of the product Miniature circuit breakers Miniature circuit-breaker 5SJ4  Ceneral technical data  number of poles Institute discrete life (switching cycles) / typical Installation environment regarding EMC reference code / according to DIN 40719 extended according to IEC 204-2 / according to BEC 750 overvoltage category 3 degree of pollution  Voltage  Supply voltage / of the operating voltage Insulation voltage (UI) / at AC / rated value 440 V  Supply voltage  supply voltage / at AC / rated value 440 V  Supply voltage / at AC / rated value 440 V  Supply voltage / at AC / rated value / avainum 4 at DC / rated value / maximum 4 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 5 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 5 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 5 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 5 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 5 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 5 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 5 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 5 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 6 at DC / single channel / according to IEC 60947-2 / rated value 7 between channel / according to IEC 60947-2 / rated value 7 between channel / according to IEC 60947-2 / rated value 7 between channel / according to IEC 60947-2 / rated value 7 between channel / according to IEC 60947-2 / rated value 7 between channel / according to IEC 60947-2 / rated value 8 at 40 °C / rated value 9 at 40 °C / rated value 9 at 40 °C / rated value 1 between channel / according to IEC according to	Model		
design of the product  General technical data number of poles tripping characteristic class mechanical service life (switching cycles) / typical installation environment regarding EMC reference code / according to DIN 40719 extended according to IEC 204-2 / according to IEC 750 overvoltage category 3 degree of pollution 3  Voltage  Type of voltage / of the operating voltage insulation voltage (Ui) / at AC / rated value operating voltage  at DC / rated value / maximum buspity voltage frequency / rated value  50 Hz  Protection class protection class protection class IP  Switching capacity power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current operational current at 40 °C / rated value	product brand name	SENTRON	
General technical data number of poles 1 tripping characteristic class mechanical service life (switching cycles) / typical installation environment regarding EMC reference code / according to DIN 40719 extended according to IEC 204-2/ according to IEC 750 overvoltage category degree of pollution 3  Voltage  Type of voltage / of the operating voltage type of voltage / of the operating voltage supply voltage  Supply voltage  Supply voltage  at AC / rated value  operating voltage  at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum  at DC / fated value / maximum  at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  Type of voltage / of the operating voltage  at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  busply voltage frequency / rated value  Type of voltage / of the operating voltage  Switching capacity  Switching capacity  Switching capacity  Switching capacity current  according to EN 60888 / rated value  according to EN 60888 / rated value  according to EN 60887 / rated value  according t	product designation	Miniature circuit breakers	
rumber of poles  tripping characteristic class C mechanical service life (switching cycles) / typical installation environment regarding EMC reference code / according to DIN 40719 extended according to IEC 204-2 / according to IEC 750 overvoltage category degree of pollution  Voltage  Type of voltage / of the operating voltage insulation voltage (Ui) / at AC / rated value operating voltage at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum  at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  at DC / single frequency / rated value  Protection class protection class IP  Switching capacity switching capacity switching capacity switching capacity switching capacity switching capacity operational current  a according to IEC 60947-2 / rated value  1	design of the product	Miniature circuit-breaker 5SJ4	
tripping characteristic class  mechanical service life (switching cycles) / typical installation environment regarding EMC reference code / according to DIN 40719 extended according to IEC 204-2 / according to IEC 750  overvoltage category degree of pollution  Voltage  type of voltage / of the operating voltage type of voltage / of the operating voltage type of voltage / at AC / rated value  Supply voltage  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum  • at DC / rated value / maximum  • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  Frotection class IP  Switching capacity  switching capacity current  • according to IEC 80947-2 / rated value  • according to IEC 80947-2 / rated value  • at 30 °C / rated value of the current / at AC / in hot operating state / per pole  Current  • at 30 °C / rated value  • at 40 °C / rated value	General technical data		
mechanical service life (switching cycles) / typical installation environment regarding EMC reference code / according to DIN 40719 extended according to EC 204-2 / according to IEC 750  overvoltage category degree of pollution 3  Voltage type of voltage / of the operating voltage yophy voltage (UI) / at AC / rated value  supply voltage / at AC / rated value  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  Protection class IP  Switching capacity witching capacity current • according to IEC 60947-2 / rated value  10 kA  15 kA  Dissipation  operating state / per pole  Current • at 30 °C / rated value • at 40 °C / rated value  2 A  2 A  2 A	number of poles	1	
installation environment regarding EMC reference code / according to DIN 40719 extended according to IEC 204-2 / according to IEC 750  overvoltage category degree of pollution  Voltage type of voltage (Ui) / at AC / rated value  400 V  Supply voltage supply voltage (at AC / rated value  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum  • at DC / rated value / maximum  • at DC / rated value / maximum  supply voltage frequency / rated value  50 Hz  Protection class protection class IP  Switching capacity  switching capacity current  • according to IEC 60947-2 / rated value  10 KA  15 KA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  • at 0° C / rated value  • at 40 ° C / rated value  • at 0° C / rated value  • at 40 ° C / rated value	tripping characteristic class	С	
reference code / according to DIN 40719 extended according to IEC 204-2 / according to IEC 750  overvoltage category degree of pollution 3  Voltage  type of voltage / of the operating voltage insulation voltage (Ui) / at AC / rated value  Supply voltage / at AC / rated value  supply voltage / at AC / rated value  400 V  operating voltage  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum • at DC / rated value / maximum • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  50 Hz  Protection class  protection class IP  Switching capacity  switching capacity current • according to IEC 60947-2 / rated value  10 kA • according to IEC 60947-2 / rated value  11.8 W  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  • at 30 °C / rated value • at 40 °C / rated value	mechanical service life (switching cycles) / typical	10 000	
according to IEC 204-2 / according to IEC 750 overvoltage category 3 degree of pollution 3  Voltage  type of voltage / of the operating voltage AC/DC insulation voltage (Ui) / at AC / rated value 440 V  Supply voltage  supply voltage  supply voltage / at AC / rated value 400 V  operating voltage  • at AC / according to UL 489 and CSA C22.2 No. 5-02 / maximum  • at DC / rated value / maximum 60 V  • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value 50 Hz  Protection class protection class IP IP20, with connected conductors, IP 40 in the handle range  Switching capacity switching capacity current  • according to IEC 60947-2 / rated value 15 kA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  • at 30 °C / rated value 2 A  • at 40 °C / rated value 2 A	installation environment regarding EMC	Suitable for environment B (immunity to interference not applicable)	
degree of pollution  Voltage  type of voltage / of the operating voltage insulation voltage (Ui) / at AC / rated value  440 V  Supply voltage supply voltage  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum  • at DC / rated value / maximum  • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  Protection class  protection class IP  Protection class IP  Switching capacity  switching capacity current  • according to EN 60898 / rated value  • according to EC 60947-2 / rated value  10 kA  • according to IEC 60947-2 / rated value  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  • at 30 °C / rated value  • at 40 °C / rated value  2 A  • at 40 °C / rated value  2 A		F	
type of voltage / of the operating voltage type of voltage (Ui) / at AC / rated value  Supply voltage  supply voltage / at AC / rated value  400 V  operating voltage   at AC / rated value  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum • at DC / rated value / maximum • at DC / rated value / maximum  • at DC / rated value / maximum  supply voltage frequency / rated value  50 Hz  Protection class  protection class IP  Switching capacity  switching capacity  switching capacity current • according to EN 60898 / rated value • according to EN 60898 / rated value  10 kA • according to EC 60947-2 / rated value  15 kA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current • at 30 °C / rated value • at 40 °C / rated value  2 A	overvoltage category	3	
type of voltage / of the operating voltage insulation voltage (Ui) / at AC / rated value  440 V  Supply voltage supply voltage supply voltage / at AC / rated value  • at AC / according to UL 489 and CSA C22.2 No. 5-02 / maximum • at DC / rated value / maximum • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  **Total Cass**  **Total Cass*  **Total Cass*	degree of pollution	3	
insulation voltage (Ui) / at AC / rated value  Supply voltage supply voltage supply voltage  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum • at DC / rated value / maximum • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  50 Hz  Protection class protection class IP  Switching capacity switching capacity current • according to EN 60898 / rated value 10 kA • according to IEC 60947-2 / rated value  11 kA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current • at 30 °C / rated value • at 40 °C / rated value • at 40 °C / rated value  2 A • at 40 °C / rated value  2 A	Voltage		
Supply voltage  supply voltage / at AC / rated value	type of voltage / of the operating voltage	AC/DC	
supply voltage / at AC / rated value 400 V  operating voltage  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum  • at DC / rated value / maximum  • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  Protection class  protection class IP  Protection class IP  IP20, with connected conductors, IP 40 in the handle range  Switching capacity  switching capacity current  • according to EN 60898 / rated value  • according to EN 60898 / rated value  10 kA  • according to EC 60947-2 / rated value  15 kA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current  • at 30 °C / rated value  • at 40 °C / rated value  2 A  • at 40 °C / rated value	insulation voltage (Ui) / at AC / rated value	440 V	
operating voltage  • at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum  • at DC / rated value / maximum  • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  Protection class  protection class IP  IP20, with connected conductors, IP 40 in the handle range  Switching capacity  switching capacity current  • according to EN 60898 / rated value  • according to IEC 60947-2 / rated value  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current  • at 30 °C / rated value  • at 40 °C / rated value  • at 40 °C / rated value  2 A  • at 40 °C / rated value	Supply voltage		
at AC / according to UL 489 and CSA C22.2 No. 5-02 / maximum  at DC / rated value / maximum  at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  protection class  protection class IP  IP20, with connected conductors, IP 40 in the handle range  Switching capacity  switching capacity current  according to EN 60898 / rated value  according to EN 60898 / rated value  baccording to IEC 60947-2 / rated value  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current  at 30 °C / rated value  at 40 °C / rated value  2 A  at 40 °C / rated value  2 A	supply voltage / at AC / rated value	400 V	
02 / maximum  • at DC / rated value / maximum  • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  Protection class  protection class IP  IP20, with connected conductors, IP 40 in the handle range  Switching capacity  switching capacity current  • according to EN 60898 / rated value  • according to IEC 60947-2 / rated value  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current  • at 30 °C / rated value  • at 40 °C / rated value  • at 40 °C / rated value  2 A  • at 40 °C / rated value	operating voltage		
at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  Protection class  protection class IP  IP20, with connected conductors, IP 40 in the handle range  Switching capacity  switching capacity current      according to EN 60898 / rated value     according to IEC 60947-2 / rated value  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current     at 30 °C / rated value     at 40 °C / rated value     at 40 °C / rated value     2 A     at 40 °C / rated value	S S S S S S S S S S S S S S S S S S S	120 V	
CSA C22.2 No. 5-02 / maximum  supply voltage frequency / rated value  Protection class  protection class IP  IP20, with connected conductors, IP 40 in the handle range  Switching capacity  switching capacity current  • according to EN 60898 / rated value  • according to IEC 60947-2 / rated value  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current  • at 30 °C / rated value  • at 40 °C / rated value  2 A  • at 40 °C / rated value	<ul><li>at DC / rated value / maximum</li></ul>	60 V	
Protection class IP IP20, with connected conductors, IP 40 in the handle range  Switching capacity  switching capacity current  • according to EN 60898 / rated value • according to IEC 60947-2 / rated value  10 kA  • according to IEC 60947-2 / rated value  15 kA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current • at 30 °C / rated value • at 40 °C / rated value  2 A  • at 40 °C / rated value		60 V	
protection class IP  Switching capacity  switching capacity current  • according to EN 60898 / rated value • according to IEC 60947-2 / rated value  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current • at 30 °C / rated value • at 40 °C / rated value  1P20, with connected conductors, IP 40 in the handle range  10 kA  15 kA  1.8 W  1.8 W	supply voltage frequency / rated value	50 Hz	
Switching capacity switching capacity current  • according to EN 60898 / rated value • according to IEC 60947-2 / rated value  10 kA • according to IEC 60947-2 / rated value  15 kA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current • at 30 °C / rated value • at 40 °C / rated value 2 A • at 40 °C / rated value	Protection class		
switching capacity current  • according to EN 60898 / rated value  • according to IEC 60947-2 / rated value  10 kA  • according to IEC 60947-2 / rated value  15 kA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current  • at 30 °C / rated value  • at 40 °C / rated value  2 A  • at 40 °C / rated value	protection class IP	IP20, with connected conductors, IP 40 in the handle range	
according to EN 60898 / rated value according to IEC 60947-2 / rated value  15 kA  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current at 30 °C / rated value at 40 °C / rated value 2 A  at 40 °C / rated value 2 A	Switching capacity		
according to IEC 60947-2 / rated value  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current     at 30 °C / rated value     at 40 °C / rated value 2 A  at 40 °C / rated value 2 A	switching capacity current		
Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current  • at 30 °C / rated value • at 40 °C / rated value 2 A  • at 40 °C / rated value	<ul> <li>according to EN 60898 / rated value</li> </ul>	10 kA	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current  • at 30 °C / rated value  • at 40 °C / rated value  2 A	<ul> <li>according to IEC 60947-2 / rated value</li> </ul>	15 kA	
hot operating state / per pole  Current  operational current  o at 30 °C / rated value  at 40 °C / rated value  2 A  2 A	Dissipation		
operational current  • at 30 °C / rated value  • at 40 °C / rated value  2 A  2 A		1.8 W	
<ul> <li>at 30 °C / rated value</li> <li>at 40 °C / rated value</li> <li>2 A</li> <li>2 A</li> </ul>	Current		
• at 40 °C / rated value 2 A	operational current		
	• at 30 °C / rated value	2 A	
• at 45 °C / rated value 1.9 A	• at 40 °C / rated value	2 A	
	• at 45 °C / rated value	1.9 A	

<ul> <li>at 50 °C / rated value</li> </ul>	1.9 A			
<ul> <li>at 55 °C / rated value</li> </ul>	1.8 A			
<ul> <li>at 60 °C / rated value</li> </ul>	1.8 A	1.8 A		
<ul><li>at AC / rated value</li></ul>	2 A			
Main circuit				
type of voltage supply / at AC / according to UL 489 and CSA C22.2 No. 5-02	240/120			
suitability for operation	Mechanical engineering / industry			
Product details				
product component / neutral conductor switching	No			
product feature / touch protection	Yes			
product component				
<ul><li>tunnel terminals top</li></ul>	No			
• tunnel terminals bottom	No			
combined terminal top	Yes			
combined terminal bottom	Yes			
product feature				
halogen-free	Yes			
sealable	Yes			
• silicon-free	Yes			
product extension / installable / supplementary devices	Yes			
Product function				
product function / note	Terminal tightening torque for Cu, 60/75°C; 3.5Nm/	31lh in		
Short circuit	Terminal lighterning torque for out, 60/75 O, 5.51411/	5 Hb.iii		
	14 kA			
breaking capacity short-circuit current (Icn) / at AC / according to UL 1077 and CSA C22.2 No.235	14 KA			
Connections				
connectable conductor cross-section / finely stranded / with core end processing				
• minimum	0.75 mm²			
maximum	25 mm <sup>2</sup>			
tightening torque / with screw-type terminals / maximum	3.5 N·m			
position / of power supply cord	Any			
Mechanical Design				
height	90 mm			
width	18 mm			
depth	70 mm			
installation depth	70 mm			
number of modular width units	1			
fastening method	on standard mounting rail			
mounting position	any			
net weight	167 g			
Environmental conditions				
vibration resistance	50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)			
ambient temperature / during operation				
• minimum	55 °C			
maximum	-25 °C			
ambient temperature / during storage				
• minimum	-40 °C			
• maximum	75 °C			
Certificates				
reference code				
<ul><li>according to EN 61346-2</li></ul>	F			
• according to IEC 81346-2	F			
General Product Approval		Declaration of Conformity		



Confirmation







**Declaration of** Conformity

**Test Certificates** 

other



**Miscellaneous** 

**Special Test Certific-**<u>ate</u>

**Miscellaneous** 

## **Further information**

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=5SJ4102-7HG40

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

https://support.industry.siemens.com/cs/ww/en/ps/5SJ4102-7HG40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SJ4102-7HG40">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SJ4102-7HG40</a>

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications





