SIEMENS

Data sheet 5SJ4120-8HG40



Miniature circuit breaker 240 V 14kA, 1-pole, D, 20 A, D=70 mm according to UL 489, equal polarity

product brand name product designation design of the product Ceneral 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 degree of pollution Voltage type of voltage / of the operating voltage insulation voltage (ui) / at AC / rated value yerpating voltage / at AC / rated value at DC / rated value / maximum at DC / rated value / maximum at DC / stingle 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 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 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 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 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 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 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 / waximum at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / waximum at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / waximum at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / waximum at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / waximum at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / waximum at DC	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 degree of pollution Voltage type of voltage / of the operating 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 / rated value / 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 • at Code insulation coltage / insulation coltage / insulation coltage / insulation online / insulation / in	product brand name	SENTRON
Ceneral technical data number of poles 1	product designation	Miniature circuit breakers
Itipping characteristic class D 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 / rated value / maximum • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum • at DC / single requency / rated value Protection class IP Switching capacity switching capacity switching capacity switching capacity 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 • at 40 °C / rated value • at 30 °C / rated value • at 40 °C / rated value	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 3 degree of pollution 3 Voltage type of voltage / of the operating voltage insulation voltage (UI) / at AC / rated value type of voltage / at AC / rated value 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 / rated value / maximum • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum supply voltage frequency / rated value **ON Totage Supply voltage frequency / rated value **Protection class IP Switching capacity switching capacity current • according to IEC 60947-2 / rated value • according to IEC 60947-2 / rated value • according to IEC 60947-2 / rated value • according state / per pole **Current **OP 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 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 **ot AC / according to UL 489 and CSA C22.2 No. 5-02 / maximum **ot AC / 2.2 No. 5-02 / maximum **supply voltage frequency / rated value **supply voltage /	number of poles	1
installation environment regarding EMC reference code / according to DIN 40719 extended according to IDN 40719 extended according to IDC 204-2 / according to IDN 40719 extended according to IDC 204-2 / according to IDC 750 overvoltage category 3 degree of pollution Voltage type of voltage / of the operating voltage insulation voltage (Ui) / at AC / rated value 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 • at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum supply voltage frequency / rated value Footection class IP Switching capacity switching capacity current • according to IEC 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	tripping characteristic class	D
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 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 / 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 switching capacity current according to IEC 60947-2 / rated value 10 kA according to IEC 60947-2 / rated value 24 W 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 20 A at 40 °C / rated value 20 A	mechanical service life (switching cycles) / typical	10 000
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 supply voltage supply voltage a AC / DC insulation voltage / at AC / rated value 440 V Supply voltage supply voltage a 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 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 20 A at 40 °C / rated value 20 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 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 Protection class protection class IP Protection class IP Switching capacity switching capacity current • according to EN 60898 / rated value 10 kA • according to EN 60898 / 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 20 A		F
type of voltage / of the operating voltage type of voltage / of the operating voltage insulation voltage (Ui) / at AC / rated value 440 V 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 • 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 EN 60898 / rated value • according to EN 60898 / 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 20 A • at 40 °C / rated value 20 A	overvoltage category	3
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 / 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 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 • at 40 °C / rated value • at 40 °C / rated value 20 A	degree of pollution	3
insulation voltage (UI) / at AC / rated value 440 V Supply voltage supply voltage at AC / rated value 400 V operating voltage at AC / rated value 400 V operating voltage at AC / rated value 400 V operating voltage at AC / rated value 400 V operating voltage at AC / rated value 400 V output at DC / rated value / maximum 60 V output at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 60 V cSA C22.2 No. 5-02 / maximum 60 V supply voltage frequency / rated value 50 Hz Protection class protection class IP IP20, with connected conductors, IP 40 in the handle range Switching capacity current according to IEC 60947-2 / rated value 15 kA Dissipation 2.4 W operational current 2.4 W operational current at 30 °C / rated value 20 A output at 40 °C / rated value 20 A	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 • 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 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 • at 40 °C / rated value 20 A	type of voltage / of the operating voltage	AC/DC
supply voltage / at AC / rated value 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 Frotection 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 EC 60947-2 / rated value ID 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 20 A	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 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 20 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 Switching capacity switching capacity current according to EN 60898 / 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 20 A at 40 °C / rated value 20 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 20 A • at 40 °C / rated value 20 A	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 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 20 A at 40 °C / rated value 20 A	•	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 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 20 A • at 40 °C / rated value	at DC / rated value / maximum	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 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 20 A • at 40 °C / rated value 20 A		60 V
protection class IP 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 10 kA 15 kA 2.4 W 2.4 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 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 20 A • at 40 °C / rated value 20 A	Protection class	
switching capacity current • 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 20 A • at 40 °C / rated value 20 A	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 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 20 A at 40 °C / rated value 20 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 20 A 20 A	switching capacity current	
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 20 A • at 40 °C / rated value	 according to EN 60898 / rated value 	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 2.4 W 2.4 W 2.4 W 2.4 W	 according to IEC 60947-2 / rated value 	15 kA
hot operating state / per pole Current operational current • at 30 °C / rated value • at 40 °C / rated value 20 A 20 A	Dissipation	
operational current • at 30 °C / rated value • at 40 °C / rated value 20 A 20 A		2.4 W
 at 30 °C / rated value at 40 °C / rated value 20 A 20 A 	Current	
• at 40 °C / rated value 20 A	operational current	
	• at 30 °C / rated value	20 A
• at 45 °C / rated value 19.4 A	 at 40 °C / rated value 	20 A
	• at 45 °C / rated value	19.4 A

 at 50 °C / rated value 	18.8 A
 at 55 °C / rated value 	18.1 A
at 60 °C / rated value	17.6 A
at AC / rated value	20 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	
 tunnel terminals top 	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/31lb.in
Short circuit	
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 mm²
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	165 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	
according to EN 61346-2	F
according to IEC 81346-2	F
General Product Approval	Declaration of Conformity

Confirmation











Test Certificates other

<u>Miscellaneous</u> <u>Special Test Certific-</u> <u>Miscellaneous</u>

<u>ate</u>

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=5SJ4120-8HG40

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

https://support.industry.siemens.com/cs/ww/en/ps/5SJ4120-8HG40

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SJ4120-8HG40

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications

