SIEMENS

Data sheet

5SJ4120-8HG42



Circuit breaker 10kA, 1-pole, D, 20A according to UL 489-277V

Model	
product brand name	SENTRON
product designation	Miniature circuit breakers
design of the product	Miniature circuit-breaker 5SJ4
General technical data	
number of poles	1
tripping characteristic class	D
mechanical service life (switching cycles) / typical	10 000
installation environment regarding EMC	Suitable for environment B (immunity to interference not applicable)
reference code / according to DIN 40719 extended according to IEC 204-2 / according to IEC 750	F
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 / at AC / rated value	400 V
operating voltage	
 at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum 	277 V
 at DC / rated value / maximum 	60 V
 at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 	60 V
 at DC / 2-channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum 	125 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	
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	2.4 W
Current	
operational current	
• at 30 °C / rated value	20 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	480/277
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	10 kA
Connections	
connectable conductor cross-section / finely stranded /	
connectable conductor cross-section / finely stranded / with core end processing	
	0.75 mm²
with core end processing	0.75 mm² 25 mm²
with core end processing minimum maximum tightening torque / with screw-type terminals / maximum	
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord 	25 mm ²
with core end processing minimum maximum tightening torque / with screw-type terminals / maximum	25 mm ² 3.5 N·m
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord 	25 mm ² 3.5 N·m
with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design	25 mm² 3.5 N·m Any
with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height 	25 mm ² 3.5 N·m Any 121 mm
with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width 	25 mm ² 3.5 N·m Any 121 mm 18 mm
with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth 	25 mm ² 3.5 N·m Any 121 mm 18 mm 70 mm
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth 	25 mm ² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units 	25 mm ² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method 	25 mm ² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1 1 on standard mounting rail
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position 	25 mm² 3.5 N·m Any 121 mm 121 mm 18 mm 70 mm 70 mm 1 1 on standard mounting rail any
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight 	25 mm² 3.5 N·m Any 121 mm 121 mm 18 mm 70 mm 70 mm 1 1 on standard mounting rail any
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight 	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1 on standard mounting rail any 174 g
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance 	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1 on standard mounting rail any 174 g
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation 	25 mm ² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 70 mm 1 on standard mounting rail any 174 g 50 m/s ² at 25 to 150Hz and 60m/s ² at 35Hz (4sec)
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation minimum 	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1 1 on standard mounting rail any 174 g 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec) 55 °C
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation maximum 	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1 1 on standard mounting rail any 174 g 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec) 55 °C
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation maximum ambient temperature / during storage 	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1 on standard mounting rail any 174 g 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec) 55 °C -25 °C
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation minimum maximum 	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 70 mm 1 on standard mounting rail any 174 g 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec) 55 °C -25 °C -40 °C
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation minimum maximum 	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 70 mm 1 on standard mounting rail any 174 g 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec) 55 °C -25 °C -40 °C
with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation minimum maximum ambient temperature / during storage minimum maximum Certificates	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 70 mm 1 on standard mounting rail any 174 g 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec) 55 °C -25 °C -40 °C
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation minimum maximum ambient temperature / during storage minimum maximum Certificates reference code	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1 on standard mounting rail any 174 g 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec) 55 °C -25 °C -40 °C 75 °C
 with core end processing minimum maximum tightening torque / with screw-type terminals / maximum position / of power supply cord Mechanical Design height width depth installation depth number of modular width units fastening method mounting position net weight Environmental conditions vibration resistance ambient temperature / during operation minimum maximum ambient temperature / during storage minimum maximum Certificates reference code according to EN 61346-2 	25 mm² 3.5 N·m Any 121 mm 18 mm 70 mm 70 mm 1 on standard mounting rail any 174 g 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec) 55 °C -25 °C -40 °C 75 °C F



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=5SJ4120-8HG42 Service&Support (Manuals, Certificates, Characteristics, FAQs,)	
https://support.industry.siemens.com/cs/ww/en/ps/5SJ4120-8HG42	
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams,) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SJ4120-8HG42	
CAx-Online-Generator	
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