## **SIEMENS**

Data sheet 5SJ4318-8HG42



Circuit breaker 10kA, 3-pole, D, 15 A according to UL 489-480Y/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	3	
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		
<ul> <li>at AC / according to UL 489 and CSA C22.2 No. 5- 02 / maximum</li> </ul>	277 V	
<ul><li>at DC / rated value / maximum</li></ul>	60 V	
<ul> <li>at DC / single channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum</li> </ul>	60 V	
<ul> <li>at DC / 2-channel / according to UL 489 and CSA C22.2 No. 5-02 / maximum</li> </ul>	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	
<ul> <li>according to IEC 60947-2 / rated value</li> </ul>	15 kA	
Dissipation		
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	1.8 W	
Current		
operational current		
• at 30 °C / rated value	15 A	
<ul><li>at 40 °C / rated value</li></ul>	15 A	

* at 6 °C / rated value   14.1 A   18.6 A   14.1 A   18.6 C   18.6		
• at 65 °C / rated value	<ul> <li>at 45 °C / rated value</li> </ul>	
e at 60 °C / rated value 15 A  Main circuit  Type of voltage supply / at AC / according to UL 489 and (SA) C22 2 No. 50 °C 2  suitability for operation Mechanical engineering / industry  Product datalis  product component / nestral conductor switching product component / nestral conductor switching product component / nestral conductor switching No yes product component / nestral conductor switching No occupance of the conductor occupance of the conductor occupance occupa	<ul><li>at 50 °C / rated value</li></ul>	14.1 A
and AC / rated value  Also in circuit  type of voltage supply / at AC / according to UL 489 and OSA OZ22 No. 5-02  suitability for peration  Product details  product component / neutral conductor switching product component / neutral conductor switching product feature / touch protection  product component  • Lurnel terminals bottom • Lurnel terminals bottom • Combined terminal top • combined terminal top • Combined terminal bottom  • Individual terminals • Also of the Sealable • Sealable	<ul><li>at 55 °C / rated value</li></ul>	13.6 A
Main circuit  ype of voltage supply / at AC / according to UL 489 and 58 AC 22.2 No. 5-02  suitability for operation Mechanical engineering / industry  Product details  product component / neutral conductor switching No product feature / found protection Yes  product component / entire industry  Product details  product component / such protection Yes  product component / such protection Yes  product component / such protection No No	<ul><li>at 60 °C / rated value</li></ul>	13.2 A
pyre of voltage supply; at AC / according to UL 489 and CSA C22 2 No. 5-62 suitability for operation Product details product component / neutral conductor switching product feature / touch protection product component - turnel terminals top - turnel terminals top - turnel terminals totom - turnel terminals bottom - combined terminal bottom - combined terminal bottom - ves - combined terminal bottom - yes - combined terminal bottom - yes - combined terminal bottom - yes - product eature - halogen-free - sealable - sealable - sealable - silicon-free - yes - sealable - silicon-free - yes - reduct function / note - strain of the	at AC / rated value	15 A
CSA C22 No. 5-02 suitability for peration  Product details product component / neutral conductor switching product component / neutral conductor switching product component / neutral conductor switching product component  • tunnel terminals top • tunnel terminals top • combined terminal bottom • halogen-free • sealable • sealable • sealable • sealable • sealable • yes • sealable • yes • sealable • yes • solicon-free product trunction / installable / supplementary devices  Product function / note  Short circuit  breaking capacity short-circuit current ((cn) / at AC / according to U. 1077 and CSA C22.2 No 235  Connectable connectable conductor cross-section / finely stranded / with core end processing • minimum • maximum  Ightening torque / with screw-type terminals / maximum position / for power supply cord  Michanical Dosign  height • lat mm width • 54 mm depth • 70 mm number of modular width units • 3  fastening method • on standard mounting rail • mounting position • minimum • maximum • To mm number of modular width units • 3  fastening method • on standard mounting rail • mounting position • minimum • maximum • 55 °C • maximum • maximum • 55 °C • maximum •	Main circuit	
Product details product component / neutral conductor switching product component  • tunnel terminals top • tunnel terminals bottom • combined terminal bottom • respective transport of the state of the sta		480/277
product component / neutral conductor switching product feature / touch protection Yes product component • tunnel terminals top • No • tunnel terminals toto No • combined terminals bottom Yes • sealable 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 current ((cn.) / at AC / according to Ut. 1077 and CSA C22.2 No.235  Connections  connectable conductor cross-section / finely stranded / with ore end processing • minimum 0.75 mm² 25 mm² 15thening lorque / with screw-type terminals / maximum position / of power supply cord Any Mechanical Design Height In Short Carlo (Connections)	suitability for operation	Mechanical engineering / industry
product feature / touch protection product component   tunnel terminals top   No	Product details	
product component  • tunnel terminals top  • tunnel terminals toptom  • combined terminal bottom  • combined terminal bottom  • combined terminal bottom  product feature  • halogen-free  • sealable  • silicon-free  product textension / installable / supplementary devices  Product function  product textension / installable / supplementary devices  Product function  product function / note  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.i	product component / neutral conductor switching	No
product component  • tunnel terminals bottom • combined terminal top • combined terminal bottom • combined terminal bottom  • combined terminal bottom  product feature • halogen-free • sealable • silicon-free • yes • sealable • silicon-free • 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  Connectable conductor cross-section / finely stranded / with core end processing • minimum  gightening torque / with screw-type terminals / maximum  position / of power supply cord  Mechanical Dasign  Mechanical Dasign  Height 121 mm  width 54 mm depth 70 mm  number of modular width units 3 fastening method mounting position any net weight 55 °C  emaximum 55 °C  emaximum 75 °C  Certificates  reference code • according to EK 61346-2 • eccording to EK 61346-2 • F	product feature / touch protection	Yes
tunnel terminals topt tunnel terminals tottom combined terminal top combined terminal top combined terminal top combined terminal top  combined terminal bottom  yes  product feature halogen-free sealable silicon-free product function  product function  product function   product function   Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb in  Short circuit  breaking capacity short-circuit current (lcn) / at AC / according to UI. 1977 and CSA C22.2 No.235  Connections  connectable conductor cross-section / finely stranded / with core end processing minimum maximum position / of power supply cord Any  Mechanical Dassign  height width S4 mm depth 70 mm installation depth 70 mm 70 mm 7	product component	
combined terminal top combined terminal bottom Yes combined terminal bottom Yes product feature halogen-free selable selicon-free reduct function reduct function reduct function reduct function / note Terminal tightening torque for Cu, 60/75°C; 3.5Nm/31lb.in  Short circuit breaking capacity short-circuit current ((cn) / at AC / according to UI. 1077 and CSA C22.2 No.235  Connections connectable conductor cross-section / finely stranded / with core end processing minimum neximum Tostition / of power supply cord Mechanical Design height 121 mm width depth 70 mm installation depth 70 mm inst	• tunnel terminals top	No
e combined terminal bottom  product feature  halogen-free sealable silicon-free product kension / installable / supplementary devices  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  Connectable connectable conductor cross-section / finely stranded / with ore end processing minimum depth ministallation depth mumber of modular width units afastening method mounting position net weight minimum minimum minimum minimum mounting position net weight minimum m	tunnel terminals bottom	No
e combined terminal bottom  product feature  halogen-free sealable silicon-free product kension / installable / supplementary devices  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  Connectable connectable conductor cross-section / finely stranded / with ore end processing minimum depth ministallation depth mumber of modular width units afastening method mounting position net weight minimum minimum minimum minimum mounting position net weight minimum m	<ul> <li>combined terminal top</li> </ul>	Yes
halogen-free     sealable     selicon-free     product extension / installable / supplementary devices     product function     product function / note		Yes
* sealable	product feature	
* sealable	• halogen-free	Yes
• silicon-free Product extension / installable / supplementary devices Product function / note Terminal tightening torque for Cu, 60/75°C; 3,5Nm/31lb.in Product function / note Terminal tightening torque for Cu, 60/75°C; 3,5Nm/31lb.in Short circuit breaking capacity short-circuit current ((in) / at AC / according to UL 1077 and CSA C22.2 No.235    Connections	_	Yes
Product function / note	• silicon-free	Yes
Product function / note	product extension / installable / supplementary devices	Yes
product function / note  Short circuit  breaking capacity short-circuit current (Icn) / at AC / according to UL 1077 and CSA C22.2 No.235  Connections  connectable conductor cross-section / finely stranded / with core end processing  • minimum  • maximum  25 mm²  3.5 N·m  position / of power supply cord  Mechanical Design  height  121 mm  width  54 mm  depth  70 mm  installation depth  70 mm  installation depth  nounting position  net weight  500 g  Environmental conditions  vibration resistance  ambient temperature / during operation  • minimum  • maximum  55 °C  certificates  reference code  • according to IL 61346-2  • according to IL 61346-2  • according to IL 61346-2  • according to IL 621346-2  • according to IL 621346-2  F		
Short circuit		Terminal tightening torque for Cu. 60/75°C: 3 5Nm/31lh in
breaking capacity short-circuit current (ton) / at AC / according to Ut. 1077 and CSA C22.2 No.235  Connections  connectable conductor cross-section / finely stranded / with core end processing  • minimum  • maximum  25 mm²  tightening torque / with screw-type terminals / maximum  position / of power supply cord  Mechanical Design  height  121 mm  width  54 mm  depth  70 mm  installation depth  70 mm  installation depth  number of modular width units  fastening method  mounting position  net weight  500 g  Environmental conditions  vibration resistance  ambient temperature / during operation  • minimum  • maximum  ambient temperature / during storage  • minimum  • maximum  75 °C  Cortificates  reference code  • according to EN 61346-2  • according to EC 81346-2  • according to EC 81346-2  • according to EC 81346-2  • EF		reminal agricoling torque for ear, control e, c.o. and one includes
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     121 mm       height     121 mm       width     54 mm       depth     70 mm       installation depth     70 mm       number of modular width units     3       fastening method     on standard mounting rail       mounting position     any       net weight     500 g       Environmental conditions       vibration resistance     50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)       ambient temperature / during operation     -25 °C       • maximum     -25 °C       ambient temperature / during storage     • minimum       • maximum     -40 °C       • maximum     75 °C       Cortificates       reference code     • according to EN 61346-2     F       • according to EN 61346-2     F       • according to EC 81346-2     F	breaking capacity short-circuit current (Icn) / at AC /	10 kA
connectable conductor cross-section / finely stranded / with core end processing  • minimum  • maximum  25 mm²  tightening torque / with screw-type terminals / maximum  position / of power supply cord  Mechanical Design  height  121 mm  width  44 mm  depth  70 mm  installation depth  70 mm  number of modular width units  3 fastening method  mounting position  net weight  500 g  Environmental conditions  vibration resistance  ambient temperature / during operation  • minimum  • maximum  -25 °C  ambient temperature / during storage  • minimum  • maximum  -25 °C  certificates  reference code  • according to EN 61346-2  • according to EN 61346-2  • according to EN 61346-2  • according to IEC 81346-2  F		
with core end processing		
minimum     maximum     maximum     itightening torque / with screw-type terminals / maximum     position / of power supply cord     Any  Mechanical Design height     installation depth     installation depth     number of modular width units     afastening method     mounting position     net weight  Environmental conditions  vibration resistance     ambient temperature / during operation     imimum     maximum     start     maximum     start		
tightening torque / with screw-type terminals / maximum position / of power supply cord  Mechanical Design height		0.75 mm²
tightening torque / with screw-type terminals / maximum position / of power supply cord  Mechanical Design height height height height Any  121 mm width 54 mm depth 70 mm installation depth number of modular width units 3 fastening method mounting position net weight  Environmental conditions vibration resistance ambient temperature / during operation  minimum min	• maximum	25 mm²
position / of power supply cord  Mechanical Design  height  width  421 mm  width  54 mm  depth  70 mm  installation depth  70 mm  number of modular width units  3 fastening method  mounting position  net weight  500 g  Environmental conditions  vibration resistance  ambient temperature / during operation  • minimum  • maximum  -25 °C  ambient temperature / during storage  • minimum  • maximum  -40 °C  reference code  • according to EN 61346-2  • according to EN 61346-2  • according to EN 61346-2  • according to EC 81346-2  F		3.5 N·m
height 121 mm  width 54 mm  depth 70 mm installation depth 70 mm number of modular width units 3 fastening method on standard mounting rail mounting position any net weight 500 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 ambient temperature / during storage  • minimum -40 °C ambient temperature / maximum 75 °C  Certificates  reference code  • according to EN 61346-2 F  • according to IEC 81346-2 F		Anv
height 121 mm width 54 mm depth 70 mm installation depth 70 mm number of modular width units 3 fastening method on standard mounting rail any mounting position any standard mounting rail any station resistance 50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4sec)  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		
width 54 mm depth 70 mm installation depth 70 mm number of modular width units 3 fastening method on standard mounting rail mounting position any net weight 500 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 rifficates  reference code  • according to EN 61346-2 • according to IEC 81346-2  F		121 mm
depth 70 mm installation depth 70 mm number of modular width units 3 fastening method on standard mounting rail mounting position any net weight 500 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 • according to IEC 81346-2 • according to IEC 81346-2		
installation depth 70 mm  number of modular width units 3  fastening method on standard mounting rail mounting position any net weight 500 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 55 °C  ambient temperature / during storage  • minimum -40 °C  maximum 75 °C  Certificates  reference code  • according to EN 61346-2  • according to IEC 81346-2  • according to IEC 81346-2		
number of modular width units  fastening method  mounting position  net weight  500 g  Environmental conditions  vibration resistance  ambient temperature / during operation  • minimum  • maximum  • maximum  -25 °C  ambient temperature / during storage  • minimum  • maximum  -40 °C  certificates  reference code  • according to EN 61346-2  • according to IEC 81346-2  F	·	
fastening method on standard mounting rail mounting position any net weight 500 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  • according to IEC 81346-2  F		
mounting position any net weight 500 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  • according to IEC 81346-2  F		
net weight  Environmental conditions  vibration resistance  ambient temperature / during operation  • minimum  • maximum  • minimum  • minimum  • minimum  • minimum  • maximum  -25 °C  ambient temperature / during storage  • minimum  • maximum  -40 °C  75 °C  Certificates  reference code  • according to EN 61346-2  • according to IEC 81346-2  F		-
vibration resistance  ambient temperature / during operation  • minimum  • maximum  • minimum  • minimum  • maximum  -25 °C  ambient temperature / during storage  • minimum  • maximum  -40 °C  • maximum  75 °C  Certificates  reference code  • according to EN 61346-2  • according to IEC 81346-2  F		·
vibration resistance  ambient temperature / during operation  • minimum  • minimum  • maximum  -25 °C  ambient temperature / during storage  • minimum  • minimum  -40 °C  • maximum  75 °C  Certificates  reference code  • according to EN 61346-2  • according to IEC 81346-2  F		3
ambient temperature / during operation  • minimum  • maximum  -25 °C  ambient temperature / during storage  • minimum  • maximum  -40 °C  • maximum  75 °C  Certificates  reference code  • according to EN 61346-2  • according to IEC 81346-2  F		50 m/s² at 25 to 150Hz and 60m/s² at 35Hz (4000)
<ul> <li>minimum</li> <li>maximum</li> <li>-25 °C</li> <li>ambient temperature / during storage</li> <li>minimum</li> <li>maximum</li> <li>maximum</li> <li>75 °C</li> </ul> Certificates reference code <ul> <li>according to EN 61346-2</li> <li>according to IEC 81346-2</li> <li>F</li> </ul>		00 11110 Gt 20 to 100112 and 0011110 dt 00112 (4000)
<ul> <li>maximum</li> <li>-25 °C</li> <li>ambient temperature / during storage</li> <li>minimum</li> <li>-40 °C</li> <li>maximum</li> <li>75 °C</li> </ul> Certificates reference code <ul> <li>according to EN 61346-2</li> <li>according to IEC 81346-2</li> <li>F</li> </ul>		55 °C
ambient temperature / during storage  • minimum  • maximum  75 °C  Certificates  reference code  • according to EN 61346-2  • according to IEC 81346-2  F		
<ul> <li>minimum</li> <li>maximum</li> <li>75 °C</li> </ul> Certificates reference code <ul> <li>according to EN 61346-2</li> <li>according to IEC 81346-2</li> </ul> F <ul> <li>according to IEC 81346-2</li> </ul>		20 0
<ul> <li>maximum</li> <li>75 °C</li> <li>Certificates</li> <li>reference code</li> <li>according to EN 61346-2</li> <li>according to IEC 81346-2</li> <li>F</li> </ul>		-40 °C
Certificates  reference code		
reference code  • according to EN 61346-2  • according to IEC 81346-2  F		
<ul> <li>according to EN 61346-2</li> <li>according to IEC 81346-2</li> </ul>		
• according to IEC 81346-2 F		_
General Product Approval Declaration of Conformity		
	General Product Approval	Declaration of Conformity

Confirmation











**Test Certificates** 

other

Special Test Certific-

Miscellaneous

<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=5SJ4318-8HG42

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

https://support.industry.siemens.com/cs/ww/en/ps/5SJ4318-8HG42

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SJ4318-8HG42

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications

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