## **SIEMENS**

Data sheet 5SL6616-7



Miniature circuit breaker 400 V 6kA, 3+N-pole, C, 16A

| product brand name product designation Ministure circuit breaker design of the product  SSL miniature circuit breakers  Ceneral technical data  number of poles number of poles 4 number of poles  | Model  |                                      |  |
|--|--|--------------------------------------|--|
| design of the product  Genoral technical data  number of poles number of poles / note tripping characteristic class mechanical service life (switching cycles) / typical overvoltage category lill degree of pollution 2  Voltage insulation voltage • with multi-phase operation / at AC / rated value Supply voltage type of voltage operational current / at AC / rated value at DC / rated value • with multi-phase operation / at AC / maximum • at DC / rated value / maximum • at DC / rated value / supply voltage frequency • rated value  * rated value  * protection class IP  Switching capacity current • acc. to IEC 60947-2 / rated value • acc. to IEC 60947-2 / rated value  * acc. to IEC 60947-2 / rated value  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Residential buildings/infrastructure  * Product details  product function / neutral conductor switching  Yes   | product brand name   | SENTRON                              |  |
| A   A   A   A   A   A   A   A   A   A  | product designation  | Miniature circuit breaker            |  |
| number of poles / note   | design of the product  | 5SL miniature circuit breakers       |  |
| number of poles / note  tripping characteristic class  mechanical service life (switching cycles) / typical  overvoltage category  degree of pollution  2  Voltage  insulation voltage  • with multi-phase operation / at AC / rated value  440 V  Supply voltage  type of voltage  type of voltage  operational current / at AC / rated value  supply voltage / at AC / rated value  • with multi-phase operation / at AC / maximum  • at DC / rated value / maximum  • at DC / rated value / maximum  72 V  supply voltage frequency  • rated value / maximum  72 V  supply voltage frequency  • rated value  50 Hz  Protection class IP  Switching capacity current  • acc. to EN 60898 / rated value  • acc. to IEC 60947-2 / rated value  fenergy limitation class  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  suitability for operation  Product details  product function / neutral conductor switching  Yes  | General technical data   |                                      |  |
| tripping characteristic class mechanical service life (switching cycles) / typical overvoltage category degree of pollution  Voltage insulation voltage  • with multi-phase operation / at AC / rated value  Supply voltage type of voltage  Operational current / at AC / rated value  * with multi-phase operation / at AC / rated value  Supply voltage  * with multi-phase operation / at AC / rated value  * operational current / at AC / rated value  * operating voltage  • with multi-phase operation / at AC / maximum  • at DC / rated value / maximum  * 72 V  supply voltage frequency • rated value  * or rated value  * or rated value  * Frotection class  * protection class IP  Switching capacity  switching capacity  switching capacity  switching capacity current • acc. to EN 60898 / rated value • acc. to EC 60947-2 / rated value • acc. to IEC 60947-2 / rated value  * operation class  * operation class  * operation class  * operation class  * operation class IP  * Switching capacity  switching capacity  switching capacity  switching capacity current • acc. to EC 60947-2 / rated value • operation • operating state / per pole  suitability for operation  * Product details  * product function / neutral conductor switching  * Yes  * Operation operation  * Product details  * product function / neutral conductor switching  * Ves  * Operation operation  * AC  * 440 V  * 50 A  * 6 A  * 6 A  * 6 A  * 6 A  * 6 A  * 6 A  * 6 A  * 7 Operation  * 7 Operation  * Product details  * product function / neutral conductor switching  * Yes  | number of poles  | 4                                    |  |
| mechanical service life (switching cycles) / typical overvoltage category degree of pollution 2  Voltage insulation voltage • with multi-phase operation / at AC / rated value 440 V  Supply voltage type of voltage operational current / at AC / rated value  supply voltage / at AC / rated value  operational current / at AC / rated value  supply voltage / at AC / rated value  operating voltage • with multi-phase operation / at AC / maximum • at DC / rated value / at DC / rated value  | number of poles / note   | 3P+N                                 |  |
| overvoltage category degree of pollution 2  Voltage insulation voltage • with multi-phase operation / at AC / rated value 440 V  Supply voltage type of voltage  type of voltage  AC operational current / at AC / rated value 16 A supply voltage / at AC / rated value operating voltage • with multi-phase operation / at AC / maximum • at DC / rated value / maximum 72 V  supply voltage frequency • rated value  Protection class protection class IP IP20, with connected conductors  Switching capacity current • acc. to EN 60898 / rated value • acc. to EN 60898 / rated value energy limitation class  Dissipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Product details product function / neutral conductor switching  Yes   | tripping characteristic class                                      | С                                    |  |
| degree of pollution 2  Voltage  insulation voltage  • with multi-phase operation / at AC / rated value 440 V  Supply voltage  type of voltage AC operational current / at AC / rated value 16 A supply voltage / at AC / rated value 400 V operating voltage • with multi-phase operation / at AC / maximum 440 V • at DC / rated value / maximum 72 V  supply voltage frequency • rated value 50 Hz  Protection class IP Switching capacity  switching capacity current • acc. to EN 60898 / rated value 6 kA energy limitation class  Dissipation  power loss FW / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Product details product function / neutral conductor switching  Yes   | mechanical service life (switching cycles) / typical               | 10 000                               |  |
| insulation voltage  • with multi-phase operation / at AC / rated value  **Supply voltage**  type of voltage  operational current / at AC / rated value  supply voltage / at AC / rated value  operating voltage  • with multi-phase operation / at AC / maximum  • at DC / rated value / maximum  **at DC / rated value / maximum  **supply voltage frequency  • rated value  **protection class  protection class IP  **Protection class IP  **Switching capacity current  • acc. to EN 60898 / rated value • acc. to IEC 60947-2 / rated value • acc. to IEC 60947-2 / rated value  • acc. to IEC 60947-2 /  | overvoltage category   | III                                  |  |
| insulation voltage  • with multi-phase operation / at AC / rated value  Supply voltage  type of voltage  type of voltage  AC  operational current / at AC / rated value  operating voltage   At AC / rated value  operating voltage   at AC / rated value  • with multi-phase operation / at AC / maximum  • at DC / rated value / maximum  72 V  supply voltage frequency  • rated value  Frotection class  protection class IP  Switching capacity  switching capacity current  • acc. to EN 60898 / rated value  • acc. to IEC 60947-2 / rated value  fo kA  energy limitation class  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  suitability for operation  Residential buildings/infrastructure  Product details  product function / neutral conductor switching  Yes   | degree of pollution  | 2                                    |  |
| with multi-phase operation / at AC / rated value  Supply voltage  type of voltage  operational current / at AC / rated value  supply voltage / at AC / rated value  operating voltage   at AC / rated value  operating voltage   at AC / rated value  operating voltage   at AC / maximum  outline   at DC / rated value / maximum  outline   at DC / rated value / maximum  results   at DC / rated value / maximum  results   at DC / rated value / rated value    outline   at DC / rated value / rated value    outline   at DC / rated value / rated value    outline   at DC / rated value / rated value    outline   at DC / rated value / rated value    outline   at DC / rated value / rated value    outline   at DC / rated value / rated value    outline   at DC / rated value / rated value    outline   at DC / rated value / rated value    outline   at DC / rated value / rated value / rated value    outline   at DC / rated value /      | Voltage  |                                      |  |
| type of voltage  type of voltage  operational current / at AC / rated value  supply voltage / at AC / rated value  operating voltage  • with multi-phase operation / at AC / maximum  • at DC / rated value / maximum  supply voltage frequency  • rated value  * T2 V  **Supply voltage frequency  • rated value  **So Hz  **Protection class  protection class IP  **Protection class IP  **Switching capacity*  **Switching capacity current  • acc. to EN 60898 / rated value • acc. to IEC 60947-2 / rated value  **enercy limitation class  **Dissipation  **power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  suitability for operation  **Product details**  product function / neutral conductor switching  **Yes**  **AC  **doo V  | insulation voltage   |                                      |  |
| type of voltage operational current / at AC / rated value operating voltage / at AC / rated value operating voltage  • with multi-phase operation / at AC / maximum • at DC / rated value / maximum 72 V  supply voltage frequency • rated value  **Protection class**  protection class IP  **Protection class**  protection class IP  **Switching capacity*  switching capacity current • acc. to EN 60898 / rated value • acc. to IEC 60947-2 / rated value energy limitation class  **Dissipation**  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  **Product details**  product function / neutral conductor switching  **Yes**  **AC  **400 V  **400 V  **440 V  **440 V  **440 V  **50 Hz  **Protection class**  **IP20, with connected conductors  **Switching capacity switching capacity switch | <ul><li>with multi-phase operation / at AC / rated value</li></ul> | 440 V                                |  |
| operational current / at AC / rated value supply voltage / at AC / rated value operating voltage • with multi-phase operation / at AC / maximum • at DC / rated value / maximum 72 V  supply voltage frequency • rated value   50 Hz  Protection class protection class IP  Switching capacity switching capacity switching capacity current • acc. to EN 60898 / rated value   6 kA • acc. to IEC 60947-2 / rated value   6 kA energy limitation class  Dissipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Product details product function / neutral conductor switching Yes   | Supply voltage   |                                      |  |
| supply voltage / at AC / rated value operating voltage • with multi-phase operation / at AC / maximum • at DC / rated value / maximum 72 V  supply voltage frequency • rated value  **Protection class**  protection class IP  **IP20, with connected conductors*  **Switching capacity*  switching capacity current • acc. to EN 60898 / rated value • acc. to IEC 60947-2 / rated value • acc. to IEC 60947-2 / rated value  **O KA  **IP20, with connected conductors*  **Switching capacity*  switching capacity current • acc. to EN 60898 / rated value • acc. to IEC 60947-2 / rated value • acc. to IEC 60947-2 / rated value  **O KA  | type of voltage  | AC                                   |  |
| operating voltage  • with multi-phase operation / at AC / maximum  • at DC / rated value / maximum  72 V  supply voltage frequency • rated value  50 Hz  Protection class  protection class IP  IP20, with connected conductors  Switching capacity  switching capacity current • acc. to EN 60898 / rated value • acc. to IEC 60947-2 / rated value energy limitation class  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Product details  product function / neutral conductor switching  Yes   | operational current / at AC / rated value                          | 16 A                                 |  |
| with multi-phase operation / at AC / maximum     at DC / rated value / maximum     supply voltage frequency         • rated value  | supply voltage / at AC / rated value                               | 400 V                                |  |
| at DC / rated value / maximum  supply voltage frequency     rated value  Frotection class  protection class IP  IP20, with connected conductors  Switching capacity  switching capacity  switching capacity current     acc. to EN 60898 / rated value     acc. to IEC 60947-2 / rated value     acc. to IEC 60947-2 / rated value     supply imitation class  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Residential buildings/infrastructure  Product details  product function / neutral conductor switching  Yes  |  |                                      |  |
| supply voltage frequency   | <ul><li>with multi-phase operation / at AC / maximum</li></ul>     | 440 V                                |  |
| • rated value 50 Hz  Protection class protection class IP IP20, with connected conductors  Switching capacity  switching capacity current  • acc. to EN 60898 / rated value 6 kA  • acc. to IEC 60947-2 / rated value 6 kA  energy limitation class 3  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation Residential buildings/infrastructure  Product details product function / neutral conductor switching Yes   | at DC / rated value / maximum                                      | 72 V                                 |  |
| protection class IP IP20, with connected conductors  Switching capacity  switching capacity current  • acc. to EN 60898 / rated value 6 kA  • acc. to IEC 60947-2 / rated value 6 kA  energy limitation class 3  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation Residential buildings/infrastructure  Product details  product function / neutral conductor switching Yes  | supply voltage frequency   |                                      |  |
| protection class IP IP20, with connected conductors  Switching capacity  switching capacity current  • acc. to EN 60898 / rated value 6 kA  • acc. to IEC 60947-2 / rated value 6 kA  energy limitation class 3  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation Residential buildings/infrastructure  Product details product function / neutral conductor switching Yes   | rated value  | 50 Hz                                |  |
| Switching capacity switching capacity current  • acc. to EN 60898 / rated value • acc. to IEC 60947-2 / rated value 6 kA energy limitation class 3  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Product details product function / neutral conductor switching  Yes  | Protection class   |                                      |  |
| switching capacity current  • acc. to EN 60898 / rated value 6 kA  • acc. to IEC 60947-2 / rated value 6 kA  energy limitation class 3  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation Residential buildings/infrastructure  Product details product function / neutral conductor switching Yes  | protection class IP  | IP20, with connected conductors      |  |
| acc. to EN 60898 / rated value  acc. to IEC 60947-2 / rated value  6 kA  energy limitation class  3  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  suitability for operation  Product details  product function / neutral conductor switching  6 kA  1.6 W  Residential buildings/infrastructure   | Switching capacity   |                                      |  |
| acc. to IEC 60947-2 / rated value 6 kA energy limitation class 3      Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation Residential buildings/infrastructure  Product details product function / neutral conductor switching Yes  | switching capacity current   |                                      |  |
| energy limitation class  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Product details product function / neutral conductor switching  3  1.6 W Residential buildings/infrastructure  Yes  | <ul><li>acc. to EN 60898 / rated value</li></ul>                   | 6 kA                                 |  |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Product details product function / neutral conductor switching  Yes   | acc. to IEC 60947-2 / rated value                                  | 6 kA                                 |  |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole suitability for operation  Product details product function / neutral conductor switching  1.6 W Residential buildings/infrastructure  Yes   | energy limitation class  | 3                                    |  |
| hot operating state / per pole suitability for operation  Residential buildings/infrastructure  Product details product function / neutral conductor switching  Yes  | Dissipation  |                                      |  |
| Product details product function / neutral conductor switching Yes   |  | 1.6 W                                |  |
| product function / neutral conductor switching Yes   | suitability for operation  | Residential buildings/infrastructure |  |
|  | Product details  |                                      |  |
| product feature / touch protection Yes   | product function / neutral conductor switching                     | Yes                                  |  |
|  | product feature / touch protection                                 | Yes                                  |  |

| product feature  |                                       |  |
|--|---------------------------------------|--|
| halogen-free   | Yes                                   |  |
| sealable   | Yes                                   |  |
| silicon-free   | Yes                                   |  |
| product extension / installable / supplementary devices  | Yes                                   |  |
| Connections  | 100                                   |  |
| connectable conductor cross-section / solid  |                                       |  |
| minimum  | 0.75 mm²                              |  |
| maximum  | 25 mm <sup>2</sup>                    |  |
| connectable conductor cross-section / stranded   | 25 111111                             |  |
| minimum  | 0.75 mm²                              |  |
| maximum  | 25 mm²                                |  |
|  | 25                                    |  |
| 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  |                                       |  |
| • minimum  | 2.5 N·m                               |  |
| • maximum  | 3 N·m                                 |  |
| Mechanical Design  |                                       |  |
| height   | 90 mm                                 |  |
| width  | 72 mm                                 |  |
| depth  | 76 mm                                 |  |
| installation depth   | 70 mm                                 |  |
| number of modular width units  | 4                                     |  |
| mounting position  | any                                   |  |
| net weight   | 580 g                                 |  |
| Environmental conditions   |                                       |  |
| influence of the surrounding temperature   | Periodically +55°C, max. 95% humidity |  |
| ambient temperature  |                                       |  |
| • minimum  | -25 °C                                |  |
| • IIIIIIIIIIIII  | -25 C                                 |  |
| maximum  | -25 °C<br>45 °C                       |  |
|  |                                       |  |
| • maximum  |                                       |  |
| maximum     ambient temperature / during storage   | 45 °C                                 |  |
| maximum  ambient temperature / during storage     minimum  | 45 °C<br>-40 °C                       |  |
| maximum  ambient temperature / during storage     minimum     maximum                              | 45 °C<br>-40 °C                       |  |
| maximum     ambient temperature / during storage           minimum           maximum  Certificates | 45 °C<br>-40 °C                       |  |
| maximum     ambient temperature / during storage   | 45 °C<br>-40 °C<br>75 °C              |  |











## 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=5SL6616-7

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

https://support.industry.siemens.com/cs/ww/en/ps/5SL6616-7

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SL6616-7

**Tender specifications** 

http://www.siemens.com/specifications





