# Product data sheet
## Characteristics

# LC1G500KUEN
High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, standard version, 100…250V wide band AC/DC coil



## Main

| | |
|---|---|
| Range | TeSys |
| Range of product | TeSys Giga |
| Product or component type | Contactor |
| Device short name | LC1G |
| Contactor application | Power switching<br>Motor control |
| Utilisation category | AC-1<br>AC-3<br>AC-3e<br>AC-4<br>AC-5a<br>AC-5b<br>AC-6a<br>AC-6b<br>AC-8a<br>AC-8b<br>DC-1<br>DC-3<br>DC-5 |
| Poles description | 3P |
| [Ue] rated operational voltage | <= 1000 V AC 50/60 Hz<br><= 460 V DC |
| [Ie] rated operational current | 700 A (at <40 °C) at <= 1000 V AC-1<br>500 A (at <60 °C) at <= 440 V AC-3 |
| [Uc] control circuit voltage | 100...250 V AC 50/60 Hz<br>100...250 V DC |
| Control circuit voltage limits | Operational: 0.8 Uc Min...1.1 Uc Max (at <60 °C)<br>Drop-out: 0.1 Uc Max...0.45 Uc Min (at <60 °C) |

## Complementary

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|---|---|
| [Uimp] rated impulse withstand voltage | 8 KV |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 700 A (at 40 °C) |
| Rated breaking capacity | 4600 A at 440 V |
| [Icw] rated short-time withstand current | 4.0 KA - 10 s<br>2.8 KA - 30 s<br>2.2 KA - 1 min<br>1.5 KA - 3 min<br>1.2 KA - 10 min |
| Associated fuse rating | 500 A aM at <= 440 V for motor<br>400 A aM at <= 690 V for motor<br>800 A gG at <= 690 V<br>600 A UL Type L at <= 600 V |

| | |
|---|---|
| Average impedance | 0.00008 Ohm |
| [Ui] rated insulation voltage | 1000 V |
| Power dissipation per pole | 40 W AC-1 - Ith 700 A<br>20 W AC-3 - Ith 500 A |
| Compatibility code | LC1G |
| Pole contact composition | 3 NO |
| Auxiliary contact composition | 1 NO + 1 NC |
| Motor power kW | 147 KW at 230 V AC 50/60 Hz (AC-3e)<br>250 KW at 400 V AC 50/60 Hz (AC-3e)<br>250 KW at 415 V AC 50/60 Hz (AC-3e)<br>280 KW at 440 V AC 50/60 Hz (AC-3e)<br>315 KW at 500 V AC 50/60 Hz (AC-3e)<br>355 KW at 690 V AC 50/60 Hz (AC-3e)<br>335 KW at 1000 V AC 50/60 Hz (AC-3e)<br>160 KW at 230 V AC 50/60 Hz (AC-3)<br>250 KW at 400 V AC 50/60 Hz (AC-3)<br>250 KW at 415 V AC 50/60 Hz (AC-3)<br>315 KW at 440 V AC 50/60 Hz (AC-3)<br>355 KW at 500 V AC 50/60 Hz (AC-3)<br>355 KW at 690 V AC 50/60 Hz (AC-3)<br>335 KW at 1000 V AC 50/60 Hz (AC-3)<br>150 KW at 230 V AC 50/60 Hz (AC-4)<br>250 KW at 400 V AC 50/60 Hz (AC-4)<br>250 KW at 415 V AC 50/60 Hz (AC-4)<br>295 KW at 440 V AC 50/60 Hz (AC-4)<br>295 KW at 500 V AC 50/60 Hz (AC-4)<br>355 KW at 690 V AC 50/60 Hz (AC-4)<br>280 KW at 1000 V AC 50/60 Hz (AC-4) |
| Motor power hp | 150 Hp at 200/208 V 60 Hz<br>200 Hp at 230/240 V 60 Hz<br>400 Hp at 460/480 V 60 Hz<br>450 Hp at 575/600 V 60 Hz |
| Irms rated making capacity | 5681 A at 440 V |
| Coil technology | Built-in bidirectional peak limiting |
| Safety reliability level | B10d = 400000 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 3000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical durability | 8 Mcycles |
| Inrush power in VA | 750 VA |
| Inrush power in W | 660 W |
| Hold-in power consumption in VA | 15.5 VA |
| Hold-in power consumption in W | 9.3 W |
| Operating time | 40...70 ms closing<br>15...50 ms opening |
| Maximum operating rate | 600 Cyc/H AC-3<br>600 Cyc/H AC-3e<br>300 Cyc/H AC-1<br>150 Cyc/H AC-4 |
| Connections - terminals | Power circuit: bar 2 - busbar cross section: 32 x 10 mm<br>Power circuit: lugs-ring terminals 1 185 mm²<br>Power circuit: bolted connection<br>Control circuit: push-in 1 0.2…2.5 mm² - cable stiffness: solid stranded without cable end<br>Control circuit: push-in 1 0.25…2.5 mm² - cable stiffness: flexible with cable end<br>Control circuit: push-in 2 0.5…1.0 mm² with cable end<br>Control circuit: push-in 0.75…2.5 mm² - cable stiffness: solid stranded without cable end<br>Control circuit: push-in 0.75…2.5 mm² - cable stiffness: flexible with cable end |
| Connection pitch | 45 Mm |
| Mounting support | Plate |
| Standards | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>JIS C8201-4-1<br>JIS C8201-5-1<br>IEC 60335-1:Clause 30.2<br>IEC 60335-2-40:Annex JJ<br>UL 60335-1<br>UL 60335-2-40:Annex JJ |
| Product certifications | CB Scheme[RETURN]CCC[RETURN]cULus[RETURN]EAC[RETURN]CE[RETURN]UKCA[RETU |
| Tightening torque | 35 N.M |
| Height | 225 Mm |

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|---|---|
| Width | 140 Mm |
| Depth | 226 Mm |
| Net weight | 7 Kg |

## Environment

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| IP degree of protection | IP2X front face with shrouds conforming to IEC 60529<br>IP2X front face with shrouds conforming to VDE 0106 |
| Ambient air temperature for operation | -25…60 °C |
| Ambient air temperature for storage | -60…80 °C |
| Mechanical robustness | Vibrations 5…300 Hz 2 gn contactor open<br>Vibrations 5…300 Hz 4 gn contactor closed<br>Shocks 10 gn 11 ms contactor open<br>Shocks 15 gn 11 ms contactor closed |
| Colour | Dark grey |
| Protective treatment | TH |
| Permissible ambient air temperature around the device | -40…70 °C at Uc |

## Packing Units

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|---|---|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 30.000 Cm |
| Package 1 Width | 22.500 Cm |
| Package 1 Length | 37.500 Cm |
| Package 1 Weight | 8.400 Kg |
| Unit Type of Package 2 | P06 |
| Number of Units in Package 2 | 8 |
| Package 2 Height | 75 Cm |
| Package 2 Width | 60 Cm |
| Package 2 Length | 80 Cm |
| Package 2 Weight | 75.7 Kg |

## Offer Sustainability

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|---|---|
| Recyclability potential, in % | 55 |
| Total lifecycle Carbon footprint | 1 613 kg CO2 eq. |
| Carbon footprint of the manufacturing phase [A1 to A3] | 69.73868162511891 |
| Carbon footprint of the manufacturing phase [A1 to A3] | 70 kg CO2 eq. |
| Carbon footprint of the distribution phase [A4] | 12.639908235885825 |
| Carbon footprint of the distribution phase [A4] | 13 kg CO2 eq. |
| Carbon footprint of the installation phase [A5] | 0.10467794270991464 |
| Carbon footprint of the installation phase [A5] | 0.1 kg CO2 eq. |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 1519.7475807248088 |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 1 520 kg CO2 eq. |
| Mercury free | Yes |
| Sustainable packaging | Yes |
| Carbon footprint of the end-of-life phase [C1 to C4] | 11.103680846266759 |
| Carbon footprint of the end-of-life phase [C1 to C4] | 11 kg CO2 eq. |
| Environmental Disclosure | Product Environmental Profile |
| Total lifecycle Carbon footprint | 1613 |
| Packaging made with recycled cardboard | Yes |
| Packaging without single use plastic | Yes |
| SCIP Number | 6fbdad13-bb7c-47d4-a6d6-d82dd6f54349 |
| REACh Regulation | Reference contains Substances of Very High Concern above the threshold |
| EU RoHS Directive | Compliant By Exemption |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Styrene and Bisphenol A (BP |
| Halogen-free status | Halogen free plastic parts product |

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|---|---|
| PVC free | Yes |
| End of life manual availability | End Of Life Information |
| Take-back | No |
| WEEE Label | The product must be disposed on European Union markets following specific waste collection and |

## Contractual warranty

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|---|---|
| Warranty (in months) | 18 |

Product Life Status : Commercialised