

Product data sheet

Specifications



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, standard version, 48...130V wide band AC/DC coil

LC1G500EHEN

Main

| | |
|--------------------------------|---|
| Range | TeSys |
| Range of product | TeSys Giga |
| Product or component type | Contactors |
| Device short name | LC1G |
| Contactors application | Power switching Motor control |
| Utilisation category | AC-1 AC-3 AC-3e AC-4 AC-5a AC-5b AC-6a AC-6b AC-8b AC-8a DC-1 DC-3 DC-5 |
| Poles description | 3P |
| [Ue] rated operational voltage | <= 1000 V AC 50/60 Hz <= 460 V DC |
| [Ie] rated operational current | 700 A (at <40 °C) at <= 1000 V AC-1 500 A (at <60 °C) at <= 400 V AC-3 |
| [Uc] control circuit voltage | 48...130 V AC 50/60 Hz 48...130 V DC |
| Control circuit voltage limits | Operational: 0.8 Uc Min...1.1 Uc Max (at <60 °C) Drop-out: 0.1 Uc Max...0.45 Uc Min (at <60 °C) |

Complementary

| | |
|---|---|
| [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 2.8 kA - 30 s 2.2 kA - 1 min 1.5 kA - 3 min 1.2 kA - 10 min |
| Associated fuse rating | 500 A aM at <= 440 V for motor |

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| | 400 A aM at <= 690 V for motor 800 A gG at <= 690 V |
| Average impedance | 0.00008 Ohm |
| [Ui] rated insulation voltage | 1000 V |
| Power dissipation per pole | 40 W AC-1 - lth 700 A 20 W AC-3 - lth 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) 250 kW at 400 V AC 50/60 Hz (AC-3e) 250 kW at 415 V AC 50/60 Hz (AC-3e) 280 kW at 440 V AC 50/60 Hz (AC-3e) 315 kW at 500 V AC 50/60 Hz (AC-3e) 355 kW at 690 V AC 50/60 Hz (AC-3e) 335 kW at 1000 V AC 50/60 Hz (AC-3e) 160 kW at 230 V AC 50/60 Hz (AC-3) 250 kW at 400 V AC 50/60 Hz (AC-3) 250 kW at 415 V AC 50/60 Hz (AC-3) 315 kW at 440 V AC 50/60 Hz (AC-3) 355 kW at 500 V AC 50/60 Hz (AC-3) 355 kW at 690 V AC 50/60 Hz (AC-3) 335 kW at 1000 V AC 50/60 Hz (AC-3) 150 kW at 230 V AC 50/60 Hz (AC-4) 250 kW at 400 V AC 50/60 Hz (AC-4) 250 kW at 415 V AC 50/60 Hz (AC-4) 295 kW at 440 V AC 50/60 Hz (AC-4) 295 kW at 500 V AC 50/60 Hz (AC-4) 355 kW at 690 V AC 50/60 Hz (AC-4) 280 kW at 1000 V AC 50/60 Hz (AC-4) |
| Motor power hp | 150 hp at 200/208 V 60 Hz 200 hp at 230/240 V 60 Hz 400 hp at 460/480 V 60 Hz 450 hp at 575/600 V 60 Hz |
| Irms rated making capacity | 5090 A at 440 V |
| Coil technology | Built-in bidirectional peak limiting |
| Mechanical durability | 5 Mcycles 8 Mcycles with sub-assembly substitution |
| Inrush power in VA (50/60 Hz, AC) | 965 VA |
| Inrush power in W (DC) | 760 W |
| Hold-in power consumption in VA (50/60 Hz, AC) | 17.6 VA |
| Hold-in power consumption in W (DC) | 7.8 W |
| Operating time | 40...70 ms closing 15...50 ms opening |
| Maximum operating rate | 300 cyc/h AC-1 500 cyc/h AC-3 500 cyc/h AC-3e 150 cyc/h AC-4 |
| Connections - terminals | Power circuit: bar 2 - busbar cross section: 32 x 10 mm Power circuit: lugs-ring terminals 1 185 mm² Power circuit: bolted connection Control circuit: push-in 1 0.2...2.5 mm² - cable stiffness: solid stranded without cable end Control circuit: push-in 1 0.25...2.5 mm² - cable stiffness: flexible with cable end Control circuit: push-in 2 0.5...1.0 mm² with cable end Control circuit: push-in 0.75...2.5 mm² - cable stiffness: solid stranded without cable end 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 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 JIS C8201-4-1 JIS C8201-5-1 |
| Product certifications | CB Scheme |

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|---|--|
| | CCC cULus EAC CE UKCA EU-RO-MR by DNV-GL |
| Tightening torque | 35 N.m |
| Height | 225 mm |
| Width | 140 mm |
| Depth | 226 mm |
| Net weight | 7.5 kg |
| Environment | |
| IP degree of protection | IP2X front face with shrouds conforming to IEC 60529 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 Vibrations 5...300 Hz 4 gn contactor closed Shocks 10 gn 11 ms contactor open 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 | |
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 31.0 cm |
| Package 1 Width | 22.5 cm |
| Package 1 Length | 31.0 cm |
| Package 1 Weight | 7.95 kg |
| Unit Type of Package 2 | S06 |
| Number of Units in Package 2 | 4 |
| Package 2 Height | 105 cm |
| Package 2 Width | 60 cm |
| Package 2 Length | 80 cm |
| Package 2 Weight | 41.8 kg |
| Offer Sustainability | |
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS declaration |
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |

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|-----------------------------|--|
| Circularity Profile | End of Life Information |
| PVC free | Yes |
| Halogen content performance | Halogen free plastic parts product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Styrene, which is known to the State of California to cause cancer, and Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |

Installation Videos

- [TeSys Giga - How to install the auxiliary contact block](#)
- [TeSys Giga - How to install and remove remote wear diagnosis module](#)
- [TeSys Giga - How to install mechanical interlock kit](#)
- [TeSys Giga - How to install cable memory kit](#)
- [TeSys Giga - How to directly mount LR9G overload relay](#)
- [TeSys Giga - How to replace control module](#)
- [TeSys Giga - How to replace switching modules](#)
- [TeSys Giga - How to assemble reverser solution](#)
- [TeSys Giga - How to assemble change-over solution](#)

Recommended replacement(s)