

# Product datasheet

Specifications



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 150A, standard version, 100...250V wide band AC/DC coil

LC1G150KUEN

EAN Code : 3606481921932

## Main

|                                |                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys                                                                                                       |
| Range of product               | TeSys Giga                                                                                                  |
| Product or component type      | Contacteur                                                                                                  |
| Device short name              | LC1G                                                                                                        |
| Contacteur 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 | 275 A (at <40 °C) at <= 1000 V AC-1<br>150 A (at <60 °C) at <= 400 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

|                                             |                                                                                         |
|---------------------------------------------|-----------------------------------------------------------------------------------------|
| [Uimp] rated impulse withstand voltage      | 8 kV                                                                                    |
| Overvoltage category                        | III                                                                                     |
| [Ith] conventional free air thermal current | 275 A (at 40 °C)                                                                        |
| Rated breaking capacity                     | 1280 A at 440 V                                                                         |
| [Icw] rated short-time withstand current    | 1.2 kA - 10 s<br>0.7 kA - 30 s<br>0.6 kA - 1 min<br>0.45 kA - 3 min<br>0.35 kA - 10 min |

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Associated fuse rating                         | 160 A aM at <= 440 V for motor<br>160 A aM at <= 690 V for motor<br>315 A gG at <= 690 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Average impedance                              | 0.00018 Ohm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| [Ui] rated insulation voltage                  | 1000 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Power dissipation per pole                     | 10 W AC-1 - lth 275 A<br>5 W AC-3 - lth 150 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Compatibility code                             | LC1G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Pole contact composition                       | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Auxiliary contact composition                  | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Motor power kW                                 | 37 kW at 230 V AC 50/60 Hz (AC-3e)<br>75 kW at 400 V AC 50/60 Hz (AC-3e)<br>75 kW at 415 V AC 50/60 Hz (AC-3e)<br>90 kW at 440 V AC 50/60 Hz (AC-3e)<br>90 kW at 500 V AC 50/60 Hz (AC-3e)<br>90 kW at 690 V AC 50/60 Hz (AC-3e)<br>75 kW at 1000 V AC 50/60 Hz (AC-3e)<br>37 kW at 230 V AC 50/60 Hz (AC-3)<br>75 kW at 400 V AC 50/60 Hz (AC-3)<br>75 kW at 415 V AC 50/60 Hz (AC-3)<br>90 kW at 440 V AC 50/60 Hz (AC-3)<br>90 kW at 500 V AC 50/60 Hz (AC-3)<br>90 kW at 690 V AC 50/60 Hz (AC-3)<br>75 kW at 1000 V AC 50/60 Hz (AC-3)<br>37 kW at 230 V AC 50/60 Hz (AC-4)<br>75 kW at 400 V AC 50/60 Hz (AC-4)<br>75 kW at 415 V AC 50/60 Hz (AC-4)<br>80 kW at 440 V AC 50/60 Hz (AC-4)<br>90 kW at 500 V AC 50/60 Hz (AC-4)<br>90 kW at 690 V AC 50/60 Hz (AC-4)<br>75 kW at 1000 V AC 50/60 Hz (AC-4) |
| Motor power hp                                 | 40 hp at 200/208 V 60 Hz<br>50 hp at 230/240 V 60 Hz<br>100 hp at 460/480 V 60 Hz<br>125 hp at 575/600 V 60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Irms rated making capacity                     | 1890 A at 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Coil technology                                | Built-in bidirectional peak limiting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Mechanical durability                          | 8 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Inrush power in VA (50/60 Hz, AC)              | 540 VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Inrush power in W (DC)                         | 380 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Hold-in power consumption in VA (50/60 Hz, AC) | 12.4 VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Hold-in power consumption in W (DC)            | 7.8 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating time                                 | 40...70 ms closing<br>15...50 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Maximum operating rate                         | 300 cyc/h AC-1<br>500 cyc/h AC-3<br>500 cyc/h AC-3e<br>150 cyc/h AC-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Connections - terminals                        | Power circuit: bar 2 - busbar cross section: 25 x 6 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                               | 35 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                        |                                                                      |
|------------------------|----------------------------------------------------------------------|
| Product certifications | CB Scheme<br>CCC<br>cULus<br>EAC<br>CE<br>UKCA<br>EU-RO-MR by DNV-GL |
| Tightening torque      | 18 N.m                                                               |
| Height                 | 193 mm                                                               |
| Width                  | 108 mm                                                               |
| Depth                  | 193 mm                                                               |
| Net weight             | 3.6 kg                                                               |

## Environment

|                                                       |                                                                                                                                                                      |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 24.5 cm  |
| Package 1 Width              | 23.5 cm  |
| Package 1 Length             | 38.5 cm  |
| Package 1 Weight             | 4.768 kg |
| Unit Type of Package 2       | S06      |
| Number of Units in Package 2 | 6        |
| Package 2 Height             | 75 cm    |
| Package 2 Width              | 60 cm    |
| Package 2 Length             | 80 cm    |
| Package 2 Weight             | 38.62 kg |

## Offer Sustainability

|                            |                                                  |
|----------------------------|--------------------------------------------------|
| Sustainable offer status   | Green Premium product                            |
| REACH Regulation           | <a href="#">REACH Declaration</a>                |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes                                              |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>           |
| RoHS exemption information | <a href="#">Yes</a>                              |

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| Environmental Disclosure    | <a href="#">Product Environmental Profile</a> |
| Circularity Profile         | <a href="#">End of Life Information</a>       |
| PVC free                    | Yes                                           |
| Halogen content performance | Halogen free plastic parts product            |
| <b>Contractual warranty</b> |                                               |
| Warranty                    | 18 months                                     |

Installation Videos

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- [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)