

# LC1G185EHEN

Contactor, high power, TeSys Giga, standard version, 3 pole/NO, AC-3  $\leq 440\text{V}$  185A, 48-130VAC/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-8b<br>AC-8a<br>DC-1<br>DC-3<br>DC-5 |
| Poles description              | 3P                                                                                                          |
| [Ue] rated operational voltage | $\leq 1000\text{ V AC } 50/60\text{ Hz}$<br>$\leq 300\text{ V DC}$                                          |
| [Ie] rated operational current | 305 A 104 °F (40 °C)) 1000 V AC-1<br>185 A 140 °F (60 °C)) 440 V AC-3                                       |
| [Uc] control circuit voltage   | 48...130 V AC/DC 50/60 Hz                                                                                   |

## Complementary

|                                             |                                                                                         |
|---------------------------------------------|-----------------------------------------------------------------------------------------|
| [Uimp] rated impulse withstand voltage      | 8 kV                                                                                    |
| Overvoltage category                        | III                                                                                     |
| [Ith] conventional free air thermal current | 305 A 104 °F (40 °C)                                                                    |
| Rated breaking capacity                     | 1610 A 440 V                                                                            |
| [Icw] rated short-time withstand current    | 1.5 kA - 10 s<br>0.92 kA - 30 s<br>0.74 kA - 1 min<br>0.5 kA - 3 min<br>0.4 kA - 10 min |
| Associated fuse rating                      | 200 A aM 440 V<br>160 A aM 690 V<br>315 A gG 690 V                                      |
| Average impedance                           | 0.00017 Ohm                                                                             |
| [Ui] rated insulation voltage               | 1000 V                                                                                  |
| Power dissipation per pole                  | 20 W AC-1 - Ith 305 A<br>6 W AC-3 - Ith 185 A                                           |
| Compatibility code                          | LC1G                                                                                    |
| Pole contact composition                    | 3 NO                                                                                    |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                             |
| Network Frequency                           | 50/60 Hz<br>16.67...400 Hz                                                              |

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                                 | 55 KW 230 V AC 50/60 Hz AC-3e)<br>90 KW 400 V AC 50/60 Hz AC-3e)<br>90 KW 415 V AC 50/60 Hz AC-3e)<br>110 KW 440 V AC 50/60 Hz AC-3e)<br>110 KW 500 V AC 50/60 Hz AC-3e)<br>110 KW 690 V AC 50/60 Hz AC-3e)<br>75 KW 1000 V AC 50/60 Hz AC-3e)<br>55 KW 230 V AC 50/60 Hz AC-3)<br>90 KW 400 V AC 50/60 Hz AC-3)<br>90 KW 415 V AC 50/60 Hz AC-3)<br>110 KW 440 V AC 50/60 Hz AC-3)<br>110 KW 500 V AC 50/60 Hz AC-3)<br>110 KW 690 V AC 50/60 Hz AC-3)<br>75 KW 1000 V AC 50/60 Hz AC-3)<br>55 KW 230 V AC 50/60 Hz AC-4)<br>90 KW 400 V AC 50/60 Hz AC-4)<br>90 KW 415 V AC 50/60 Hz AC-4)<br>100 KW 440 V AC 50/60 Hz AC-4)<br>110 KW 500 V AC 50/60 Hz AC-4)<br>110 KW 690 V AC 50/60 Hz AC-4)<br>75 kW 1000 V AC 50/60 Hz AC-4) |
| Maximum Horse Power Rating                     | 50 Hp 200/208 V at 60 Hz<br>60 Hp 230/240 V at 60 Hz<br>125 Hp 460/480 V at 60 Hz<br>150 hp 575/600 V at 60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Irms rated making capacity                     | 2310 A 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Control circuit voltage limits                 | Operational 0.8...1.1 U <sub>c</sub> AC/DC 140 °F (60 °C))<br>Drop-out 0.1...0.45 U <sub>c</sub> AC/DC 140 °F (60 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Coil technology                                | Built-in bidirectional peak limiting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Mechanical durability                          | 5 Mcycles<br>8 Mcycles with sub-assembly substitution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Inrush power in VA (50/60 Hz, AC)              | 640 VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Inrush power in W (DC)                         | 445 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Hold-in power consumption in VA (50/60 Hz, AC) | 18.7 VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Hold-in power consumption in W (DC)            | 7.8 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Operating time                                 | 45...60 ms closing<br>15...45 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 25 x 6 mm<br>Power circuit lugs-ring terminals 1 0.29 in <sup>2</sup> (185 mm <sup>2</sup> )<br>Power circuit bolted connection<br>Control circuit push-in 1 0.00...0.00 in <sup>2</sup> (0.2...2.5 mm <sup>2</sup> ) solid stranded without cable end<br>Control circuit push-in 1 0.00...0.00 in <sup>2</sup> (0.25...2.5 mm <sup>2</sup> ) flexible with cable end<br>Control circuit push-in 2 0.00...0.00 in <sup>2</sup> (0.5...1.0 mm <sup>2</sup> ) with cable end<br>Control circuit push-in 0.00...0.00 in <sup>2</sup> (0.75...2.5 mm <sup>2</sup> ) solid stranded without cable end<br>Control circuit push-in 0.00...0.00 in <sup>2</sup> (0.75...2.5 mm <sup>2</sup> ) flexible with cable end    |
| Connection pitch                               | 1.38 in (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                              | 159.31 lbf.in (18 N.m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Height                                         | 7.60 in (193 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Width                                          | 4.25 in (108 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Depth                                          | 7.60 in (193 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

|            |                      |
|------------|----------------------|
| Net Weight | 7.94 lb(US) (3.6 kg) |
| Color      | Dark grey            |

## Environment

|                                                       |                                                                                                                                                                      |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection                               | IP2x front face with shrouds IEC 60529<br>IP2x front face with shrouds VDE 0106                                                                                      |
| Ambient Air Temperature for Operation                 | -13...140 °F (-25...60 °C)                                                                                                                                           |
| Ambient Air Temperature for Storage                   | -76...176 °F (-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 |
| Protective treatment                                  | TH                                                                                                                                                                   |
| Permissible ambient air temperature around the device | -40...158 °F (-40...70 °C) at Uc                                                                                                                                     |

## Ordering and shipping details

|                   |                             |
|-------------------|-----------------------------|
| Category          | 22329-TESYS GIGA CONTACTORS |
| Discount Schedule | I12                         |
| GTIN              | 3606481921840               |
| Returnability     | Yes                         |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 9.84 in (25.0 cm)       |
| Package 1 Width              | 9.25 in (23.5 cm)       |
| Package 1 Length             | 15.16 in (38.5 cm)      |
| Package 1 Weight             | 10.49 lb(US) (4.76 kg)  |
| Unit Type of Package 2       | S06                     |
| Number of Units in Package 2 | 6                       |
| Package 2 Height             | 29.53 in (75 cm)        |
| Package 2 Width              | 23.62 in (60 cm)        |
| Package 2 Length             | 31.50 in (80 cm)        |
| Package 2 Weight             | 85.01 lb(US) (38.56 kg) |
| Package 3 Height             | 29.13 in (74 cm)        |

## Offer Sustainability

|                             |                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status    | Green Premium 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation            |  <a href="#">REACH Declaration</a>                                                                                                                                                                                                                              |
| EU RoHS Directive           | Compliant  <a href="#">EU RoHS Declaration</a>                                                                                                                                                                                                                  |
| Mercury free                | Yes                                                                                                                                                                                                                                                                                                                                                |
| RoHS exemption information  |  <a href="#">Yes</a>                                                                                                                                                                                                                                            |
| China RoHS Regulation       |  <a href="#">China RoHS Declaration</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                                                                                                                                                                                                                                                                                                                 |