

## GV2P07KD09G7

Motor Starter Kit, TeSys, LC1D09G7 contactor,  
GV2P07 motor starter protector, 120 VAC  
50/60 Hz coil, 1.6 to 2.5A trip

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## Main

|                                             |                                                                                                                                                                                                                                                                                              |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                                        |
| Product or Component Type                   | Motor starter                                                                                                                                                                                                                                                                                |
| Contactor application                       | Resistive load<br>Motor control                                                                                                                                                                                                                                                              |
| Utilisation category                        | AC-3<br>AC-1<br>AC-4                                                                                                                                                                                                                                                                         |
| Poles description                           | 3P                                                                                                                                                                                                                                                                                           |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                                                                                                         |
| [Ue] rated operational voltage              | Power circuit $\leq 690$ V AC 25...400 Hz<br>Power circuit $\leq 300$ V DC                                                                                                                                                                                                                   |
| [Ie] rated operational current              | 9 A 140 °F (60 °C) $\leq 440$ V AC AC-3 power circuit<br>25 A 140 °F (60 °C) $\leq 440$ V AC AC-1 power circuit                                                                                                                                                                              |
| Motor power kW                              | 2.2 KW 220...230 V AC 50/60 Hz AC-3)<br>4 KW 380...400 V AC 50/60 Hz AC-3)<br>4 KW 415...440 V AC 50/60 Hz AC-3)<br>5.5 KW 500 V AC 50/60 Hz AC-3)<br>5.5 KW 660...690 V AC 50/60 Hz AC-3)<br>2.2 kW 400 V AC 50/60 Hz AC-4)                                                                 |
| Motor power HP (UL / CSA)                   | 1 Hp 230/240 V at AC 50/60 Hz for 1 phase<br>2 Hp 200/208 V at AC 50/60 Hz for 3 phase<br>2 Hp 230/240 V at AC 50/60 Hz for 3 phase<br>5 Hp 460/480 V at AC 50/60 Hz for 3 phase<br>7.5 Hp 575/600 V at AC 50/60 Hz for 3 phase<br>0.33 hp 115 V at AC 50/60 Hz for 1 phase                  |
| Control circuit type                        | AC 50/60 Hz                                                                                                                                                                                                                                                                                  |
| [Uc] control circuit voltage                | 120 V AC 50/60 Hz                                                                                                                                                                                                                                                                            |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                                  |
| [Uimp] rated impulse withstand voltage      | 6 kV IEC 60947                                                                                                                                                                                                                                                                               |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                          |
| [Ith] conventional free air thermal current | 25 A 140 °F (60 °C) power circuit<br>10 A 140 °F (60 °C) signalling circuit                                                                                                                                                                                                                  |
| Irms rated making capacity                  | 250 A 440 V power circuit IEC 60947<br>140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1                                                                                                                                                                |
| Rated breaking capacity                     | 250 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                          |
| [Icw] rated short-time withstand current    | 105 A 104 °F (40 °C) - 10 s power circuit<br>210 A 104 °F (40 °C) - 1 s power circuit<br>30 A 104 °F (40 °C) - 10 min power circuit<br>61 A 104 °F (40 °C) - 1 min power circuit<br>100 A - 1 s signalling circuit<br>120 A - 500 ms signalling circuit<br>140 A - 100 ms signalling circuit |
| Associated fuse rating                      | 10 A gG signalling circuit IEC 60947-5-1<br>25 A gG $\leq 690$ V type 1 power circuit<br>20 A gG $\leq 690$ V type 2 power circuit                                                                                                                                                           |
| Average impedance                           | 2.5 mOhm - Ith 25 A 50 Hz power circuit                                                                                                                                                                                                                                                      |
| [Ui] rated insulation voltage               | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL                                                                                                |
| Electrical durability                       | 0.6 Mcycles 25 A AC-1 $\leq 440$ V<br>2 Mcycles 9 A AC-3 $\leq 440$ V                                                                                                                                                                                                                        |
| Power dissipation per pole                  | 1.56 W AC-1<br>0.2 W AC-3                                                                                                                                                                                                                                                                    |
| Safety cover                                | With                                                                                                                                                                                                                                                                                         |
| Mounting Support                            | Rail<br>Plate                                                                                                                                                                                                                                                                                |

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|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                 | CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Product Certifications    | RINA<br>DNV<br>GOST<br>LROS (Lloyds register of shipping)<br>UL<br>GL<br>BV<br>CCC<br>CSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Connections - terminals   | Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end |
| Tightening torque         | Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating time            | 12...22 ms closing<br>4...19 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Safety reliability level  | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Mechanical durability     | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Maximum operating rate    | 3600 cyc/h 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Trip unit rating          | 1.6...2.5 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Trip unit technology      | Thermal-magnetic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Phase failure sensitivity | Yes IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Suitability for isolation | Yes IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## Complementary

|                                 |                                                                                                                                                              |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Without built-in suppressor module                                                                                                                           |
| Control circuit voltage limits  | Drop-out 0.3...0.6 Uc AC 50/60 Hz 140 °F (60 °C))<br>Operational 0.8...1.1 Uc AC 50 Hz 140 °F (60 °C))<br>Operational 0.85...1.1 Uc AC 60 Hz 140 °F (60 °C)) |
| Inrush power in VA              | 70 VA 60 Hz 0.75 68 °F (20 °C))<br>70 VA 50 Hz 0.75 68 °F (20 °C))                                                                                           |
| Hold-in power consumption in VA | 7.5 VA 60 Hz 0.3 68 °F (20 °C))<br>7 VA 50 Hz 0.3 68 °F (20 °C))                                                                                             |
| Heat dissipation                | 2...3 W 50/60 Hz                                                                                                                                             |
| Auxiliary contacts type         | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC IEC 60947-4-1                                                                           |

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signalling circuit frequency                        | 25...400 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Minimum switching current                           | 5 mA signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Minimum switching voltage                           | 17 V signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Non-overlap time                                    | 1.5 Ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Insulation resistance                               | > 10 MOhm signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Contact compatibility                               | M2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Motor power range                                   | 0...0.5 KW 100...120 V 3 phase<br>0.55...1 KW 100...120 V 3 phase<br>0...0.5 KW 200...240 V 3 phase<br>0.55...1 KW 200...240 V 3 phase<br>1.1...2 KW 200...240 V 3 phase<br>0...0.5 KW 380...440 V 3 phase<br>0.55...1 KW 380...440 V 3 phase<br>1.1...2 KW 380...440 V 3 phase<br>2.2...3 KW 380...440 V 3 phase<br>4...6 KW 380...440 V 3 phase<br>0...0.5 KW 480...500 V 3 phase<br>0.55...1 KW 480...500 V 3 phase<br>1.1...2 KW 480...500 V 3 phase<br>2.2...3 KW 480...500 V 3 phase<br>4...6 KW 480...500 V 3 phase<br>0...0.5 KW 525...690 V 3 phase<br>0.55...1 KW 525...690 V 3 phase<br>1.1...2 KW 525...690 V 3 phase<br>2.2...3 KW 525...690 V 3 phase<br>4...6 kW 525...690 V 3 phase |
| Motor starter type                                  | Direct on-line contactor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Utilisation category                                | AC-3 IEC 60947-4-1<br>Category A IEC 60947-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Network frequency                                   | 50/60 Hz IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Fixing mode                                         | 35 mm symmetrical DIN rail clipped<br>Panel screwed with 2 x M4 screws)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Operating position                                  | Any position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Motor power kW                                      | 0.75 KW 400/415 V AC 50/60 Hz<br>1.1 KW 500 V AC 50/60 Hz<br>1.5 kW 690 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Breaking capacity                                   | 100 KA Icu 230/240 V AC 50/60 Hz IEC 60947-2<br>100 KA Icu 400/415 V AC 50/60 Hz IEC 60947-2<br>100 KA Icu 440 V AC 50/60 Hz IEC 60947-2<br>100 KA Icu 500 V AC 50/60 Hz IEC 60947-2<br>8 kA Icu 690 V AC 50/60 Hz IEC 60947-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [Ics] rated service short-circuit breaking capacity | 100 % 690 V AC 50/60 Hz IEC 60947-2<br>100 % 500 V AC 50/60 Hz IEC 60947-2<br>100 % 230/240 V AC 50/60 Hz IEC 60947-2<br>100 % 440 V AC 50/60 Hz IEC 60947-2<br>100 % 400/415 V AC 50/60 Hz IEC 60947-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Control Type                                        | Rotary knob                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Line Rated Current                                  | 2.5 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Magnetic tripping current                           | 33.5 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| [Ue] rated operational voltage                      | 690 V AC 50/60 Hz IEC 60947-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| [Ui] rated insulation voltage                       | 690 V AC 50/60 Hz IEC 60947-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| [Ith] conventional free air thermal current         | 2.5 A IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| [Uimp] rated impulse withstand voltage              | 6 kV IEC 60947-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power dissipation per pole                          | 2.5 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mechanical durability                               | 100000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Electrical durability                               | 100000 cycles AC-3 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Maximum operating rate                              | 25 cyc/h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Rated duty                                          | Continuous IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Direct connector                                    | Without                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Connections - terminals                             | Screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...6 mm <sup>2</sup> ) solid<br>Screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1.5...6 mm <sup>2</sup> ) flexible without cable end<br>Screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end                                                                                                                                                                                                                                                                                                                                                                                             |
| Tightening torque                                   | 15.05 lbf.in (1.7 N.m) screw clamp terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Environment

|                                                       |                                                                                                                                                                            |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection                               | IP20 front face IEC 60529                                                                                                                                                  |
| Pollution degree                                      | 3                                                                                                                                                                          |
| Ambient Air Temperature for Operation                 | 23...140 °F (-5...60 °C)                                                                                                                                                   |
| Ambient Air Temperature for Storage                   | -76...176 °F (-60...80 °C)                                                                                                                                                 |
| Permissible ambient air temperature around the device | -40...158 °F (-40...70 °C) at Uc                                                                                                                                           |
| Operating altitude                                    | 9842.52 ft (3000 m) without derating                                                                                                                                       |
| Fire resistance                                       | 1562 °F (850 °C) IEC 60695-2-1                                                                                                                                             |
| Flame retardance                                      | V1 conforming to UL 94                                                                                                                                                     |
| Mechanical robustness                                 | Vibrations contactor open2 Gn, 5...300 Hz<br>Vibrations contactor closed4 Gn, 5...300 Hz<br>Shocks contactor open10 Gn for 11 ms<br>Shocks contactor closed15 Gn for 11 ms |
| Height                                                | 3.03 in (77 mm)                                                                                                                                                            |
| Width                                                 | 1.77 in (45 mm)                                                                                                                                                            |
| Depth                                                 | 3.39 in (86 mm)                                                                                                                                                            |
| Net Weight                                            | 0.71 lb(US) (0.32 kg)                                                                                                                                                      |
| Standards                                             | VDE 0113<br>CSA C22.2<br>EN 60204<br>IEC 60947-2<br>IEC 60947-4-1<br>NF C 79-130<br>NF C 63-120<br>NF C 63-650<br>VDE 0660<br>UL 508<br>IEC 60947-1                        |
| Product certifications                                | CSA<br>DNV<br>UL 508 type E<br>BV<br>TSE<br>CCC<br>EZU<br>UL<br>GL<br>EAC<br>ATEX<br>LROS (Lloyds register of shipping)<br>RINA                                            |
| Protective treatment                                  | TH                                                                                                                                                                         |
| Climatic withstand                                    | IACS E10                                                                                                                                                                   |
| IK degree of protection                               | IK04                                                                                                                                                                       |
| IP degree of protection                               | IP20 IEC 60529                                                                                                                                                             |
| Ambient air temperature for operation                 | -4...140 °F (-20...60 °C)                                                                                                                                                  |
| Operating altitude                                    | 6561.68 ft (2000 m)                                                                                                                                                        |
| Ambient air temperature for storage                   | -40...176 °F (-40...80 °C)                                                                                                                                                 |
| Height                                                | 3.50 in (89 mm)                                                                                                                                                            |
| Width                                                 | 1.77 in (45 mm)                                                                                                                                                            |
| Depth                                                 | 3.82 in (97 mm)                                                                                                                                                            |

## Ordering and shipping details

|                   |                                     |
|-------------------|-------------------------------------|
| Category          | 22368-TESYS GV2P & LC1D STARTER KIT |
| Discount Schedule | I11                                 |
| GTIN              | 3606486287835                       |
| Returnability     | No                                  |

## Packing Units

|                              |                      |
|------------------------------|----------------------|
| Unit Type of Package 1       | PCE                  |
| Number of Units in Package 1 | 1                    |
| Package 1 Height             | 3.03 in (7.7 cm)     |
| Package 1 Width              | 1.77 in (4.5 cm)     |
| Package 1 Length             | 3.39 in (8.6 cm)     |
| Package 1 Weight             | 24.16 oz (684.925 g) |

## Offer Sustainability

|                            |                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. 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                                                                                                                                                                                                                                                       |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                                                                                                                                                    |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                       |