

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 65 A - 575 V AC 50/60 Hz coil

LC1D65A6SC7

⚠ Discontinued on: 1 Nov 2020

⚠ Discontinued

EAN Code: 3389118329003

### Main

|                                |                                                                                                                  |
|--------------------------------|------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys                                                                                                            |
| Range Of Product               | TeSys D                                                                                                          |
| Product Or Component Type      | Contactor                                                                                                        |
| Device Short Name              | LC1D                                                                                                             |
| Contactor Application          | Motor control<br>Resistive load                                                                                  |
| Utilisation Category           | AC-1<br>AC-4<br>AC-3                                                                                             |
| Poles Description              | 3P                                                                                                               |
| [Ue] Rated Operational Voltage | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC                                             |
| [Ie] Rated Operational Current | 80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>65 A (at <60 °C) at <= 440 V AC AC-3 for power circuit |
| [Uc] Control Circuit Voltage   | 575 V AC 50/60 Hz                                                                                                |

### Complementary

|                                             |                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor Power Kw                              | 11 kW at 400 V AC 50/60 Hz (AC-4)<br>18.5 kW at 220...230 V AC 50/60 Hz (AC-3)<br>30 kW at 380...400 V AC 50/60 Hz (AC-3)<br>37 kW at 500 V AC 50/60 Hz (AC-3)<br>37 kW at 660...690 V AC 50/60 Hz (AC-3)                                                                                                                 |
| Motor Power Hp                              | 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>5 hp at 115 V AC 50/60 Hz for 1 phase motors<br>10 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>20 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>20 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>50 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Compatibility Code                          | LC1D                                                                                                                                                                                                                                                                                                                      |
| Pole Contact Composition                    | 3 NO                                                                                                                                                                                                                                                                                                                      |
| Contact Compatibility                       | M2                                                                                                                                                                                                                                                                                                                        |
| Protective Cover                            | With                                                                                                                                                                                                                                                                                                                      |
| [Ith] Conventional Free Air Thermal Current | 10 A (at 60 °C) for signalling circuit<br>80 A (at 60 °C) for power circuit                                                                                                                                                                                                                                               |
| Irms Rated Making Capacity                  | 140 A AC for signalling circuit conforming to IEC 60947-5-1<br>250 A DC for signalling circuit conforming to IEC 60947-5-1<br>1000 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                   |
| Rated Breaking Capacity                     | 1000 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                 |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                                 |                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Icw] Rated Short-Time Withstand Current</b> | 520 A 40 °C - 10 s for power circuit<br>900 A 40 °C - 1 s for power circuit<br>110 A 40 °C - 10 min for power circuit<br>260 A 40 °C - 1 min for power circuit<br>100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit       |
| <b>Associated Fuse Rating</b>                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>125 A gG at <= 690 V coordination type 1 for power circuit<br>125 A gG at <= 690 V coordination type 2 for power circuit                                                                                                       |
| <b>Average Impedance</b>                        | 1.5 mOhm - lth 80 A 50 Hz for power circuit                                                                                                                                                                                                                                                  |
| <b>Power Dissipation Per Pole</b>               | 9.6 W AC-1<br>6.3 W AC-3                                                                                                                                                                                                                                                                     |
| <b>[Ui] Rated Insulation Voltage</b>            | Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Signalling circuit: 690 V conforming to IEC 60947-1<br>Signalling circuit: 600 V CSA certified<br>Signalling circuit: 600 V UL certified<br>Power circuit: 690 V conforming to IEC 60947-4-1                      |
| <b>Overvoltage Category</b>                     | III                                                                                                                                                                                                                                                                                          |
| <b>Pollution Degree</b>                         | 3                                                                                                                                                                                                                                                                                            |
| <b>[Uimp] Rated Impulse Withstand Voltage</b>   | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                                 |
| <b>Safety Reliability Level</b>                 | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1                                                                                                                         |
| <b>Mechanical Durability</b>                    | 6 Mcycles                                                                                                                                                                                                                                                                                    |
| <b>Electrical Durability</b>                    | 1.4 Mcycles 80 A AC-1 at Ue <= 440 V<br>1.45 Mcycles 65 A AC-3 at Ue <= 440 V                                                                                                                                                                                                                |
| <b>Control Circuit Type</b>                     | AC at 50/60 Hz                                                                                                                                                                                                                                                                               |
| <b>Coil Technology</b>                          | Without built-in suppressor module                                                                                                                                                                                                                                                           |
| <b>Control Circuit Voltage Limits</b>           | 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz<br>1...1.1 Uc (60...70 °C):operational AC 50/60 Hz                                                                                    |
| <b>Inrush Power In Va</b>                       | 140 VA 60 Hz cos phi 0.75 (at 20 °C)<br>160 VA 50 Hz cos phi 0.75 (at 20 °C)                                                                                                                                                                                                                 |
| <b>Hold-In Power Consumption In Va</b>          | 13 VA 60 Hz cos phi 0.3 (at 20 °C)<br>15 VA 50 Hz cos phi 0.3 (at 20 °C)                                                                                                                                                                                                                     |
| <b>Heat Dissipation</b>                         | 4...5 W at 50/60 Hz                                                                                                                                                                                                                                                                          |
| <b>Operating Time</b>                           | 4...19 ms opening<br>12...26 ms closing                                                                                                                                                                                                                                                      |
| <b>Maximum Operating Rate</b>                   | 3600 cyc/h 60 °C                                                                                                                                                                                                                                                                             |
| <b>Connections - Terminals</b>                  | Control circuit: lugs-ring terminals - external diameter: 8 mm<br>Power circuit: lugs-ring terminals - external diameter: 16.5 mm                                                                                                                                                            |
| <b>Tightening Torque</b>                        | Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver flat Ø 6 mm M3.5<br>Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver Philips No 2 M3.5<br>Power circuit: 6 N.m - on EverLink BTR screw connectors hexagonal screw head 10 mm M6 |
| <b>Auxiliary Contact Composition</b>            | 1 NO + 1 NC                                                                                                                                                                                                                                                                                  |
| <b>Auxiliary Contacts Type</b>                  | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1<br>type mirror contact 1 NC conforming to IEC 60947-4-1                                                                                                                                                                     |
| <b>Signalling Circuit Frequency</b>             | 25...400 Hz                                                                                                                                                                                                                                                                                  |
| <b>Minimum Switching Voltage</b>                | 17 V for signalling circuit                                                                                                                                                                                                                                                                  |

|                           |                                                                                                         |
|---------------------------|---------------------------------------------------------------------------------------------------------|
| Minimum Switching Current | 5 mA for signalling circuit                                                                             |
| Insulation Resistance     | > 10 MOhm for 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 |
| Mounting Support          | Rail<br>Plate                                                                                           |

## Environment

|                                                       |                                                                                                                                                                                        |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                | UL<br>CCC<br>CSA<br>GOST                                                                                                                                                               |
| Ip Degree Of Protection                               | IP20 front face conforming to IEC 60529                                                                                                                                                |
| Protective Treatment                                  | TH conforming to IEC 60068-2-30                                                                                                                                                        |
| Climatic Withstand                                    | conforming to IACS E10 exposure to damp heat<br>conforming to IEC 60947-1 Annex Q category D exposure to damp heat                                                                     |
| Permissible Ambient Air Temperature Around The Device | -60...80 °C storage<br>-40...60 °C operation<br>60...70 °C with derating                                                                                                               |
| Operating Altitude                                    | 0...3000 m                                                                                                                                                                             |
| Fire Resistance                                       | 850 °C conforming to IEC 60695-2-1                                                                                                                                                     |
| Flame Retardance                                      | V1 conforming to UL 94                                                                                                                                                                 |
| Mechanical Robustness                                 | Vibrations contactor open (2 Gn, 5...300 Hz)<br>Vibrations contactor closed (4 Gn, 5...300 Hz)<br>Shocks contactor closed (15 Gn for 11 ms)<br>Shocks contactor open (10 Gn for 11 ms) |
| Height                                                | 122 mm                                                                                                                                                                                 |
| Width                                                 | 55 mm                                                                                                                                                                                  |
| Depth                                                 | 120 mm                                                                                                                                                                                 |
| Net Weight                                            | 0.86 kg                                                                                                                                                                                |

## Packing Units

|                              |     |
|------------------------------|-----|
| Unit Type Of Package 1       | PCE |
| Number Of Units In Package 1 | 1   |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|