

## LC1D115M6

TeSys D contactor - 3P(3 NO) - AC-3 -  $\leq 440$  V  
115 A - 220 V AC 60 Hz coil



### Main

|                                             |                                                                                                                                                                                                                                                                           |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                     |
| Product name                                | TeSys D                                                                                                                                                                                                                                                                   |
| Product or component type                   | Contactor                                                                                                                                                                                                                                                                 |
| Device short name                           | LC1D                                                                                                                                                                                                                                                                      |
| Contactor application                       | Motor control<br>Resistive load                                                                                                                                                                                                                                           |
| Utilisation category                        | AC-1<br>AC-3                                                                                                                                                                                                                                                              |
| Poles description                           | 3P                                                                                                                                                                                                                                                                        |
| Pole contact composition                    | 3 NO                                                                                                                                                                                                                                                                      |
| [Ue] rated operational voltage              | $\leq 1000$ V AC 25...400 Hz for power circuit<br>$\leq 300$ V DC for power circuit                                                                                                                                                                                       |
| [Ie] rated operational current              | 200 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit<br>115 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit                                                                                                                                        |
| Motor power kW                              | 30 kW at 220...230 V AC 50/60 Hz<br>55 kW at 380...400 V AC 50/60 Hz<br>65 kW at 1000 V AC 50/60 Hz<br>75 kW at 500 V AC 50/60 Hz<br>80 kW at 660...690 V AC 50/60 Hz<br>59 kW at 415...440 V AC 50/60 Hz                                                                 |
| Motor power hp                              | 30 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>40 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>75 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>100 hp at 575/600 V AC 50/60 Hz for 3 phases motors                                                     |
| Control circuit type                        | AC 60 Hz                                                                                                                                                                                                                                                                  |
| Control circuit voltage                     | 220 V AC 60 Hz                                                                                                                                                                                                                                                            |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                               |
| [Uimp] rated impulse withstand voltage      | 8 kV conforming to IEC 60947                                                                                                                                                                                                                                              |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                       |
| [Ith] conventional free air thermal current | 200 A at $\leq 60$ °C for power circuit                                                                                                                                                                                                                                   |
| Irms rated making capacity                  | 1260 A at 440 V for power circuit conforming to IEC 60947<br>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                                                                                   |
| Rated breaking capacity                     | 1100 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                 |
| [Icw] rated short-time withstand current    | 1100 A $\leq 40$ °C 1 s power circuit<br>100 A 1 s signalling circuit<br>120 A 500 ms signalling circuit<br>140 A 100 ms signalling circuit<br>250 A $\leq 40$ °C 10 min power circuit<br>550 A $\leq 40$ °C 1 min power circuit<br>950 A $\leq 40$ °C 10 s power circuit |
| Associated fuse rating                      | 200 A gG at $\leq 690$ V coordination type 2 for power circuit<br>250 A gG at $\leq 690$ V coordination type 1 for power circuit                                                                                                                                          |

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|                               | 10 A gG for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Average impedance             | 0.6 mOhm at 50 Hz - Ith 200 A for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ui] rated insulation voltage | 1000 V for power circuit conforming to IEC 60947-4-1<br>600 V for power circuit certifications CSA<br>600 V for power circuit certifications UL<br>690 V for signalling circuit conforming to IEC 60947-1<br>600 V for signalling circuit certifications CSA<br>600 V for signalling circuit certifications UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Electrical durability         | 0.8 Mcycles 200 A AC-1 at Ue ≤ 440 V<br>0.95 Mcycles 115 A AC-3 at Ue ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Power dissipation per pole    | 24 W AC-1<br>7.9 W AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Protective cover              | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mounting support              | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Standards                     | EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508<br>CSA C22.2 No 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Product certifications        | BV<br>CCC<br>CSA<br>DNV<br>GL<br>GOST<br>RINA<br>UL<br>LROS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Connections - terminals       | Control circuit : screw clamp terminals 2 cable(s)<br>1...2.5 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 2 cable(s)<br>1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 2 cable(s)<br>1...2.5 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit : screw clamp terminals 1 cable(s)<br>1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s)<br>1...2.5 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 1 cable(s)<br>1...2.5 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : connector 1 cable(s) 10...120 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : connector 2 cable(s) 10...50 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : connector 1 cable(s) 10...120 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : connector 2 cable(s) 10...50 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : connector 1 cable(s) 10...120 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : connector 2 cable(s) 10...50 mm <sup>2</sup> - cable stiffness: solid - without cable end |
| Tightening torque             | Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit : 12 N.m - on connector hexagonal 4 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating time                | 6...20 ms opening<br>20...50 ms closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Safety reliability level      | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|                       |                       |
|-----------------------|-----------------------|
| Mechanical durability | 8 Mcycles             |
| Operating rate        | 2400 cyc/h at ≤ 60 °C |

## Complementary

|                                 |                                                                                                                              |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Without built-in suppressor module                                                                                           |
| Control circuit voltage limits  | 0.3...0.6 Uc at 55 °C drop-out 60 Hz<br>0.85...1.1 Uc at 55 °C operational 60 Hz                                             |
| Inrush power in VA              | 300 VA at 20 °C (cos φ 0.8) 60 Hz                                                                                            |
| Hold-in power consumption in VA | 22 VA at 20 °C (cos φ 0.3) 60 Hz                                                                                             |
| Heat dissipation                | 3...8 W at 60 Hz                                                                                                             |
| Auxiliary contacts type         | 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 |
| Signalling circuit frequency    | 25...400 Hz                                                                                                                  |
| Minimum switching current       | 5 mA for signalling circuit                                                                                                  |
| Minimum switching voltage       | 17 V 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)                  |
| Insulation resistance           | > 10 MOhm for signalling circuit                                                                                             |

## Environment

|                                                       |                                                                                                                                                                               |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection                               | IP2x front face conforming to IEC 60529                                                                                                                                       |
| Protective treatment                                  | TH conforming to IEC 60068-2-30                                                                                                                                               |
| Pollution degree                                      | 3                                                                                                                                                                             |
| Ambient air temperature for operation                 | -5...60 °C                                                                                                                                                                    |
| Ambient air temperature for storage                   | -60...80 °C                                                                                                                                                                   |
| Permissible ambient air temperature around the device | -40...70 °C at Uc                                                                                                                                                             |
| Operating altitude                                    | 3000 m without derating in temperature                                                                                                                                        |
| 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 6 Gn for 11 ms |
| Height                                                | 158 mm                                                                                                                                                                        |
| Width                                                 | 120 mm                                                                                                                                                                        |
| Depth                                                 | 136 mm                                                                                                                                                                        |
| Product weight                                        | 2.5 kg                                                                                                                                                                        |

## Offer Sustainability

|                                  |                                                                       |
|----------------------------------|-----------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                 |
| RoHS                             | Compliant - since 0742 - Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold                     |
| Product environmental profile    | Available                                                             |
| Product end of life instructions | Available                                                             |