

# TeSys LF - enclosed DOL starter - 0.16...0.25 A

LF3P00E

#### ! Discontinued

### Main

| Range                               | TeSys  |
|-------------------------------------|--|
| Product Name                        | TeSys LF   |
| Product Or Component Type           | Enclosed DOL starter   |
| Device Application                  | AS interface   |
| Device Composition                  | Circuit-breaker ordered separately<br>Contactor<br>AS interface module |
| Utilisation Category                | AC-3   |
| Network Type                        | AC   |
| [Uc] Control Circuit Voltage        | 24 V AC 50/60 Hz   |
| Thermal Protection Adjustment Range | 0.160.25 A   |
| Control Type                        | Rotary handle for protection control - OFF - Trip - ON                 |

## Complementary

| Network Frequency                               | 50/60 Hz   |
|---|--|
| [Ue] Rated Operational Voltage                  | Power circuit: 415 V AC 50/60 Hz<br>Output control relay: 250 V AC 50/60 Hz<br>Output control relay: 30 V DC   |
| [Uimp] Rated Impulse Withstand<br>Voltage       | 6 kV for power circuit conforming to IEC 60947-1 2.5 kV for 24 V conforming to IEC 60947-1 2.5 kV for sensor conforming to IEC 60947-1 2.5 kV for AS-Interface conforming to IEC 60947-1 |
| Insulation Resistance                           | > 1000 mOhm for output and communication   |
| Insulation                                      | 1500 V between output and ground<br>1500 V between output and internal logic<br>between input and communication  |
| [Ui] Rated Insulation Voltage                   | 415 V AC 50/60 Hz conforming to IEC 60947  |
| [Ithe] Conventional Enclosed<br>Thermal Current | 5 A for output control relay at 40 °C  |
| Protection Type                                 | Inductive overvoltage Phase failure  |
| Breaking Capacity                               | 100 kA at 230/240 V conforming to IEC 60947-2<br>100 kA at 400/415 V conforming to IEC 60947-2   |
| Mechanical Durability                           | 0.1 Mcycles for circuit breaker 30 Mcycles for contactor   |

| Electrical Durability         | Circuit breaker: 0.1 Mcycles  |
|-------------------------------|---|
|                               | Contactor: 0.8 Mcycles - AC-3 - 8.5 A   |
|                               | Relay: 0.1 Mcycles - 24 V, operating rate <6 cyc/mn - AC-12 - 5 A   |
|                               | Relay: 1 Mcycles - 24 V, operating rate <15 cyc/mn - AC-12 - 1 A  |
|                               | Relay: 0.5 Mcycles - 24 V, operating rate <15 cyc/mn - AC-14 - 1 A  |
|                               | Relay: 1 Mcycles - 24 V, operating rate <15 cyc/mn - AC-14 - 0.5 A  |
|                               | Relay: 5 Mcycles - 24 V, operating rate <30 cyc/mn - AC-14 - 0.25 A   |
|                               | Relay: 0.1 Mcycles - 24 V, operating rate <6 cyc/mn - DC-12 - 5 A   |
|                               | Relay: 0.2 Mcycles - 24 V, operating rate <6 cyc/mn - DC-12 - 2 A   |
|                               | Relay: 0.5 Mcycles - 24 V, operating rate <15 cyc/mn - DC-3 - 1 A   |
|                               | Relay: 1 Mcycles - 24 V, operating rate <30 cyc/mn - DC-3 - 0.25 A  |
| Current Consumption           | 20 mA for communication bus during operation  |
|                               | 60 mA for communication bus sensor  |
|                               | 0 mA at 24 V for supply circuit de-energisation   |
|                               | 30 mA at 24 V for supply circuit maintained mode  |
|                               | 110 mA at 24 V for supply circuit inrush  |
| Local Signalling              | Product status: 3 LEDs  |
|                               | Input/output status: LED  |
| Number Of Inputs              | 2 M12   |
| Nominal Input Value           | 1930 V 50 mA - DC   |
| Input Description             | Status D0: forward stop - bit value 0   |
| mpat bescription              | Status Du: forward stop - bit value 0 Status D1: reverse stop - bit value 0   |
|                               | ,   |
|                               | Status D2: disable relay - bit value 0 Status D3: unused - bit value 0  |
|                               | Status D3: unused - bit value 0 Status D0: forward start - bit value 1  |
|                               | Status Du: forward start - bit value 1 Status D1: reverse start - bit value 1   |
|                               |   |
|                               | Status D2: enable relay - bit value 1   |
|                               | Status D3: unused - bit value 1   |
| Input Type                    | Resistive   |
| Sensor Compatibility          | 2 or 3-wire PNP   |
| Output Description            | Command D0: not ready - bit value 0   |
|                               | Command D1: stopped - bit value 0   |
|                               | Command D2: sensor 1 missing - bit value 0  |
|                               | Command D3: sensor 2 missing - bit value 0  |
|                               | Command D0: ready - bit value 1   |
|                               | Command D1: started - bit value 1   |
|                               | Command D2: sensor 1 present - bit value 1  |
|                               | Command D3: sensor 2 present - bit value 1  |
| Response Time                 | <= 10 ms closing for output control relay   |
|                               | <= 15 ms opening for output control relay   |
| Contacts Type And Composition | 1 C/O   |
| As-Interface Profile          | 7A70 - extended A/B   |
| Cable Gland Type              | Supply circuit: Pg 16 - 1015 mm   |
|                               | Power circuit: Pg 16 - 1015 mm  |
|                               | Output control relay: Pg 13 - 1015 mm   |
|                               | Output control relay: Pg 16 - 1015 mm   |
| Connections - Terminals       | Supply circuit; scraw clamp terminals, 1 v 1.5, 2 v 6 mm²/raid  |
| Connections - Terminals       | Supply circuit: screw clamp terminals, 1 x 1.52 x 6 mm²rigid  |
|                               | Supply circuit: screw clamp terminals, 1 x 1.52 x 6 mm²flexible without cable end   |
|                               | Supply circuit: screw clamp terminals, 1 x 1.52 x 4 mm²flexible with cable end  |
|                               | Power circuit: screw clamp terminals, 1 x 1.52 x 4 mm²rigid   |
|                               | Power circuit: screw clamp terminals, 1 x 1.52 x 4 mm²flexible without cable end  |
|                               | Power circuit: screw clamp terminals, 1 x 1.51 x 2.5 mm²flexible with cable end   |
|                               | Output control relay: screw terminals, 1 x 0.51 x 1.5 mm²rigid  |
|                               | Output control relay: screw terminals, 1 x 0.51 x 1.5 mm²flexible without cable end<br>Output control relay: screw terminals, 1 x 0.51 x 1.5 mm²flexible with cable end |
| Tightening Torque             | Supply circuit: 1.7 N.m - with screwdriver flat Ø 5.5 mm  |
|                               | Power circuit: 0.8 N.m - with screwdriver flat Ø 5.5 mm   |
|                               | Output control relay: 0.7 N.m - with screwdriver flat Ø 3.5 mm  |
| Width                         | 175 mm  |
| Height Height                 | 195 mm  |
| Depth                         | 175 mm  |
|                               |   |
| Net Weight                    | 1.02 kg   |

### **Environment**

| Electromagnetic Compatibility            | Electrostatic discharge - test level: 8 kV level 3 (in air) conforming to EN/IEC 61000-4-2                     |
|--|--|
|  | Electrostatic discharge - test level: 4 kV level 2 (in indirect mode) conforming to EN/ IEC 61000-4-2          |
|  | Surge immunity test - test level: 4 kV level 4 (power, line to ground) conforming to IEC 61000-4-5             |
|  | Surge immunity test - test level: 2 kV level 4 (power, line to line) conforming to EN/ IEC 61000-4-5           |
|  | Surge immunity test - test level: 2 kV level 2 (control circuit, line to ground) conforming to IEC 61000-4-5   |
|  | Surge immunity test - test level: 500 V level 2 (control circuit, line to line) conforming to EN/IEC 61000-4-5 |
|  | Electrical fast transient/burst immunity test - test level: 2 kV level 3 conforming to EN/<br>IEC 61000-4-4    |
|  | Conducted RF disturbances - test level: 10 V/m conforming to IEC 61000-4-6                                     |
|  | Conducted RF disturbances - test level: 10 V/m conforming to ENV 50141   |
|  | Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m                              |
|  | conforming to IEC 61000-4-3  Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m |
|  | conforming to ENV 50204  |
|  | Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m                              |
|  | conforming to ENV 50140  |
|  | Disturbing field emission class B conforming to ENV 55011  |
|  | Disturbing field emission class B conforming to CISPR 11   |
| Mechanical Robustness                    | Shocks contactor open - 10 Gn conforming to IEC 60068-2-27   |
|  | Shocks contactor closed - 15 gn conforming to IEC 60068-2-27   |
|  | Vibrations contactor open - 2 GN conforming to IEC 60068-2-6   |
|  | Vibrations contactor closed - 4 gn conforming to IEC 60068-2-6   |
| Ip Degree Of Protection                  | IP54 conforming to IEC 60529   |
| Protective Treatment                     | TC   |
| Fire Resistance                          | 960 °C conforming to IEC 60695-2-1   |
| Operating Altitude                       | 2000 m   |
| Standards                                | IEC 60204-1  |
|  | IEC 60439-1  |
|  | EN 60439-1   |
|  | EN 60204-1   |
|  | IEC 60947-1  |
|  | EN 60947-1   |
| Material                                 | Bottom: polycarbonate + 20 % FG - black  |
|  | Top: polycarbonate + 20 % FG - white: RAL 9001   |
| Ambient Air Temperature For<br>Operation | -540 °C conforming to IEC 61439-1  |
| Ambient Air Temperature For<br>Storage   | -4080 °C conforming to IEC 61439-1   |

## **Contractual warranty**

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

### Sustainability

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

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### Well-being performance

| $\bigcirc$ | Mercury Free |  |
|------------|--------------|--|
|            |              |  |

| Rohs Exemption Information | Yes |  |
|----------------------------|-----|--|
|----------------------------|-----|--|

| Eu Rohs Directive         | Not compliant   |
|---------------------------|---|
| China Rohs Regulation     | China RoHS declaration  Product out of China RoHS scope. Substance declaration for your information   |
| Weee                      | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins   |
| 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 www.P65Warnings.ca.gov |