



### Main

Range	TeSys
Product name	TeSys LF
Product or component type	Enclosed DOL starter
Device application	AS interface
Device composition	AS interface module Circuit-breaker to be ordered separately Contactor
Utilisation category	AC-3
Network type	AC
[Uc] control circuit voltage	24 V for AC circuit at 50/60 Hz
Thermal protection adjustment range	0.16...0.25 A
Control type	Rotary handle for protection control - OFF - Trip - ON

### Complementary

Network frequency	50/60 Hz
[Ue] rated operational voltage	415 V - AC at 50/60 Hz for power circuit 250 V - AC at 50/60 Hz for output control relay 30 V - DC for output control relay
[Uimp] rated impulse withstand 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 between output and communication
Insulation	1500 V between output and ground 1500 V between output and internal logic Between input and communication
[Ui] rated insulation voltage	AC at 50/60 Hz conforming to IEC 60947
[I <sub>th</sub> ] conventional enclosed 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 60947-2 100 kA at 400/415 V conforming to IEC 60947-2
Mechanical durability	Circuit breaker : 0.1 Mcycles Contactor : 30 Mcycles

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

Electrical durability	Circuit breaker : 0.1 Mcycles Contactor : 0.8 Mcycles - AC-3 - 8.5 A Relay : 0.1 Mcycles - 24 V with 6 cyc/mn - AC-12 - 5 A Relay : 1 Mcycles - 24 V with 15 cyc/mn - AC-12 - 1 A Relay : 0.5 Mcycles - 24 V with 15 cyc/mn - AC-14 - 1 A Relay : 1 Mcycles - 24 V with 15 cyc/mn - AC-14 - 0.5 A Relay : 5 Mcycles - 24 V with 30 cyc/mn - AC-14 - 0.25 A Relay : 0.1 Mcycles - 24 V with 6 cyc/mn - DC-12 - 5 A Relay : 0.2 Mcycles - 24 V with 6 cyc/mn - DC-12 - 2 A Relay : 0.5 Mcycles - 24 V with 15 cyc/mn - DC-3 - 1 A Relay : >= 1 Mcycles - 24 V with 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 by 3 LEDs Input/output status by LED
Number of inputs	2 M12
Nominal input value	19...30 V 50 mA - DC
Input description	Status D0 : 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 D0 : 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	Output control relay : <= 10 ms during closing Output control relay : <= 15 ms during opening
Contacts type and composition	1 C/O
AS-interface profile	7DFF - standard
Cable gland type	Supply circuit : Pg 16 - 10...15 mm Power circuit : Pg 16 - 10...15 mm Output control relay : Pg 13 - 10...15 mm Output control relay : Pg 16 - 10...15 mm
Connections - terminals	Supply circuit: screw clamp terminals 1 x 1.5...2 x 6 mm <sup>2</sup> rigid Supply circuit: screw clamp terminals 1 x 1.5...2 x 6 mm <sup>2</sup> flexible without cable end Supply circuit: screw clamp terminals 1 x 1.5...2 x 4 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 1 x 1.5...2 x 4 mm <sup>2</sup> rigid Power circuit: screw clamp terminals 1 x 1.5...2 x 4 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 1 x 1.5...1 x 2.5 mm <sup>2</sup> flexible with cable end Output control relay: screw terminals 1 x 0.5...1 x 1.5 mm <sup>2</sup> rigid Output control relay: screw terminals 1 x 0.5...1 x 1.5 mm <sup>2</sup> flexible without cable end Output control relay: screw terminals 1 x 0.5...1 x 1.5 mm <sup>2</sup> flexible 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	219 mm
Height	245 mm
Depth	179 mm
Product weight	1.02 kg

## Environment

Electromagnetic compatibility	Electrostatic discharge 8 kV level 3 - in air - conforming to EN/IEC 61000-4-2 Electrostatic discharge 4 kV level 2 - in indirect mode - conforming to EN/IEC 61000-4-2
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Electrical fast transient/burst immunity test 2 kV level 3 conforming to EN/IEC 61000-4-4  
 Surge immunity test 4 kV level 4 - power, line to ground - conforming to IEC 61000-4-5  
 Surge immunity test 2 kV level 4 - power, line to line - conforming to EN/IEC 61000-4-5  
 Surge immunity test 2 kV level 2 - control circuit, line to ground - conforming to IEC 61000-4-5  
 Surge immunity test 500 V level 2 - control circuit, line to line - conforming to EN/IEC 61000-4-5  
 Conducted RF disturbances 10 V/m conforming to IEC 61000-4-6  
 Conducted RF disturbances 10 V/m conforming to ENV 50141  
 Radiated radio-frequency electromagnetic field immunity test 10 V/m conforming to IEC 61000-4-3  
 Radiated radio-frequency electromagnetic field immunity test 10 V/m conforming to ENV 50204  
 Radiated radio-frequency electromagnetic field immunity test 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 : 10 Gn during contactor open conforming to IEC 60068-2-27 Shocks : 15 gn during contactor closed conforming to IEC 60068-2-27 Vibrations : 2 Gn during contactor open conforming to IEC 60068-2-6 Vibrations : 4 Gn during contactor closed 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	EN 60204-1 IEC 60204-1 IEC 60947-1 EN 60439-1 EN 60947-1 IEC 60439-1
Material	Steel - white : RAL 9001
Ambient air temperature for operation	-5...40 °C conforming to IEC 61439-1
Ambient air temperature for storage	-40...80 °C conforming to IEC 61439-1

### Offer Sustainability

RoHS (date code: YYWW)	Compliant <a href="#">Schneider Electric declaration of conformity</a>
Product end of life instructions	Need no specific recycling operations

### Contractual warranty

Warranty period	18 months
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