



## Main

Range	TeSys
Product name	TeSys D
Product or component type	Star delta starter
Device short name	LC3D
Contactors application	Motor control
Utilisation category	AC-3
Device presentation	Pre-wired
Poles description	3 x 3P
Power pole contact composition	3 x 3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW	37 kW at 220/230 V AC 50/60 Hz 75 kW at 380/400 V AC 50/60 Hz 75 kW at 415 V AC 50/60 Hz 75 kW at 440 V AC 50/60 Hz
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	115 V AC 50/60 Hz
Auxiliary contact composition	1 NC for KM2 line contactor 1 NO for KM3 delta contactor
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 1000 V conforming to IEC 60947-1
Electrical durability	10 Mcycles 80 A AC-3 at Ue <= 440 V
Mounting support	Plate
Standards	CSA C22.2 No 14 EN 60947-5-1

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

IEC 60947-4-1  
 IEC 60947-5-1  
 UL 508  
 EN 60947-4-1

Product certifications	LROS (Lloyds register of shipping) BV RINA GL UL CSA DNV GOST CCC
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## Complementary

Connections - terminals	Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 4...50 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 4...25 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 4...50 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 4...16 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 4...50 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 4...25 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 9 N.m - on screw clamp terminals - with screwdriver flat Ø 6...8 mm
Mechanical durability	4 Mcycles
Maximum operating rate	30 cyc/h 60 °C
Starting time	30 s
Coil technology	Without built-in suppressor module
Control circuit voltage limits	Drop-out: 0.3...0.6 U <sub>c</sub> at 50/60 Hz (at <55 °C) Operational: 0.8...1.1 U <sub>c</sub> at 50 Hz (at <55 °C) Operational: 0.85...1.1 U <sub>c</sub> at 60 Hz (at <55 °C)
Inrush power in VA	140 VA 60 Hz cos phi 0.75 (at 20 °C) 160 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	4...5 W at 50/60 Hz
Auxiliary contacts type	Mechanically linked conforming to IEC 60947-5-1 3 x 1 NO + 1 NC Mirror contact conforming to IEC 60947-4-1 3 x 1 NC
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 1.5 ms on energisation between NC and NO contact
Width	311 mm
Height	143 mm
Depth	183 mm
Net weight	5.2 kg

## Environment

Insulation resistance	> 10 MOhm for signalling circuit
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 storage	-60...80 °C
Ambient air temperature for operation	-40...70 °C at U <sub>c</sub>

Operating altitude	3000 m without
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 Shocks contactor open: 8 Gn for 11 ms Vibrations contactor closed: 3 Gn, 5...300 Hz Shocks contactor closed: 10 Gn for 11 ms

### Offer Sustainability

Sustainable offer status	Green Premium product
RECh Regulation	<a href="#">RECh Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

### Contractual warranty

Warranty	18 months
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