



## Main

Range	TeSys
Product name	TeSys D
Product or component type	Star delta starter
Device short name	LC3D
Contactor 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	150 A (at ≤60 °C) at ≤ 440 V AC AC-3 for power circuit
Motor power kW	132 kW at 380/400 V AC 50/60 Hz 132 kW at 415 V AC 50/60 Hz 147 kW at 440 V AC 50/60 Hz 75 kW at 220/230 V AC 50/60 Hz
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	230 V AC 50/60 Hz
Auxiliary contact composition	1 NC for KM1 star contactor 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	0.85 Mcycles 150 A AC-3 at Ue ≤ 440 V
Interlocking type	Mechanical
Mounting support	Plate

Standards	UL 508 EN 60947-5-1 CSA C22.2 No 14 IEC 60947-5-1 IEC 60947-4-1 EN 60947-4-1
Product certifications	GL LROS (Lloyds register of shipping) DNV UL BV RINA CSA GOST CCC

## Complementary

Connections - terminals	Power circuit: connector 1 10...120 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 2 10...50 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 1 10...120 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: connector 2 10...50 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: connector 1 10...120 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: connector 2 10...50 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: connector 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: connector 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: connector 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: connector 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: connector 1 1...2.5 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: connector 2 1...2.5 mm <sup>2</sup> - cable stiffness: solid without cable end
Tightening torque	Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6...8 mm Control circuit: 1.2 N.m - on connector - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on connector - with screwdriver Philips No 2
Mechanical durability	8 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...0.5 U <sub>c</sub> at 50/60 Hz (at <55 °C) Operational: 0.8...1.15 U <sub>c</sub> at 50/60 Hz (at <55 °C)
Inrush power in VA	280...350 VA 60 Hz cos phi 0.9 (at 20 °C) 280...350 VA 50 Hz cos phi 0.9 (at 20 °C)
Hold-in power consumption in VA	2...18 VA 60 Hz cos phi 0.9 (at 20 °C) 2...18 VA 50 Hz cos phi 0.9 (at 20 °C)
Heat dissipation	3...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	450 mm
Height	555 mm
Depth	205 mm
Net weight	12.1 kg

## Environment

Insulation resistance	> 10 MOhm for signalling circuit
IP degree of protection	IP20 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 Uc
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 Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor closed: 15 Gn for 11 ms Shocks contactor open: 6 Gn for 11 ms

### Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
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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