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## Main

Range	TeSys
Product name	TeSys D
Product or component type	Reversing contactor
Device short name	LC2D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-3
Device presentation	Preassembled with reversing power busbar
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 1000 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	125 A 140 °F (60 °C) <= 440 V AC AC-1 power circuit 80 A 140 °F (60 °C) <= 440 V AC AC-3 power circuit
Motor power kW	22 KW 220...230 V AC 50 Hz 37 KW at 380...400 V AC 50 Hz 45 KW 415...440 V AC 50 Hz 55 KW 500 V AC 50 Hz 45 KW 660...690 V AC 50 Hz 45 kW 1000 V AC 50 Hz
Motor power HP (UL / CSA)	20 Hp 200/208 V AC 60 Hz 3 phase 7.5 Hp 115 V AC 60 Hz 1 phase 15 Hp 230/240 V AC 60 Hz 1 phase 25 Hp at 230/240 V AC 60 Hz for 3 phases motors 60 Hp 460/480 V AC 60 Hz 3 phase 60 hp 575/600 V AC 60 Hz 3 phase
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	120 V AC 50/60 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	10 A (at 60 °C) for signalling circuit 125 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1100 A 440 V power circuit IEC 60947
Rated breaking capacity	1100 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	135 A 104 °F (40 °C) - 10 min power circuit 320 A 104 °F (40 °C) - 1 min power circuit 640 A 104 °F (40 °C) - 10 s power circuit 990 A 104 °F (40 °C) - 1 s power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 200 A gG <= 690 V type 1 power circuit 160 A gG <= 690 V type 2 power circuit
Average impedance	0.8 mOhm - Ith 125 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1

Electrical durability	0.8 Mcycles 125 A AC-1 <= 440 V 1.5 Mcycles 80 A AC-3 <= 440 V
Power dissipation per pole	12.5 W AC-1 5.1 W AC-3
Front cover	With
Interlocking type	Mechanical
Mounting support	Plate Rail
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	DNV CSA UL LROS (Lloyds register of shipping) GL RINA GOST BV CCC
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> solid Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> solid Control circuit screw clamp terminals 1 0.00... 0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Power circuit connector 1 0.01...0.08 in <sup>2</sup> (4... 50 mm <sup>2</sup> )flexible without cable end Power circuit connector 2 0.01...0.04 in <sup>2</sup> (4... 25 mm <sup>2</sup> )flexible without cable end Power circuit connector 1 0.01...0.08 in <sup>2</sup> (4... 50 mm <sup>2</sup> )flexible with cable end Power circuit connector 2 0.01...0.02 in <sup>2</sup> (4... 16 mm <sup>2</sup> )flexible with cable end Power circuit connector 1 0.01...0.08 in <sup>2</sup> (4... 50 mm <sup>2</sup> )solid Power circuit connector 2 0.01...0.04 in <sup>2</sup> (4... 25 mm <sup>2</sup> )solid
Tightening torque	Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals Philips No 2 Power circuit 106.21 lbf.in (12 N.m) connector flat Ø 6 to Ø 8 mm Power circuit 106.21 lbf.in (12 N.m) connector hexagonal 0.16 in (4 mm)
Operating time	20...35 ms closing 6...20 ms opening
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	4 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 U <sub>c</sub> (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 U <sub>c</sub> -40...131 °F (-40...55 °C) operational AC 50 Hz 0.85...1.1 U <sub>c</sub> -40...131 °F (-40...55 °C) operational AC 60 Hz 1...1.1 U <sub>c</sub> 131...158 °F (55...70 °C) operational AC 50/60 Hz
Inrush power in VA	245 VA 60 Hz 0.75 68 °F (20 °C)) 245 VA 50 Hz 0.75 68 °F (20 °C))
Hold-in power consumption in VA	26 VA 60 Hz 0.3 68 °F (20 °C)) 26 VA 50 Hz 0.3 68 °F (20 °C))
Heat dissipation	6...10 W 50/60 Hz
Auxiliary contacts type	Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 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 1.5 ms on energisation between NC and NO contact
Insulation resistance	> 10 MOhm for signalling circuit

## Environment

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 operation	-40...60 °C 60...70 °C with derating
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Operating altitude	0...3000 m
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
Height	5.00 in (127 mm)
Width	7.17 in (182 mm)
Maximum Depth	6.22 in (158 mm)
Net Weight	7.05 lb(US) (3.2 kg)

## Ordering and shipping details

Category	22359 - CTR, TESYS D, OPEN, 80-150A AC&DC
Discount Schedule	I12
GTIN	00785901457190
Nbr. of units in pkg.	1
Package weight(Lbs)	8.22 lb(US) (3.73 kg)
Returnability	Yes
Country of origin	CZ

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	7.28 in (18.5 cm)
Package 1 width	7.48 in (19 cm)
Package 1 Length	10.24 in (26 cm)

## Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
RECh Regulation	<a href="#">RECh Declaration</a>
RECh 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>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

## Contractual warranty

Warranty	18 months
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