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## Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactors
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-4 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit $\leq 1000$ V AC 25...400 Hz Power circuit: $\leq 300$ V DC
[Ie] rated operational current	200 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit 115 A 140 °F (60 °C) $\leq 440$ V AC AC-3 power circuit
Motor power kW	30 kW 220...230 V AC 50/60 Hz AC-3) 55 kW 380...400 V AC 50/60 Hz AC-3) 59 kW 415...440 V AC 50/60 Hz AC-3) 75 kW 500 V AC 50/60 Hz AC-3) 80 kW 660...690 V AC 50/60 Hz AC-3) 65 kW 1000 V AC 50/60 Hz AC-3) 18.5 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	30 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 40 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 75 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 100 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	115 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	200 A (at 60 °C) for power circuit
Irms rated making capacity	1260 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	1100 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	250 A 40 °C - 10 min for power circuit 550 A 40 °C - 1 min for power circuit 950 A 40 °C - 10 s for power circuit 1100 A 40 °C - 1 s for 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	250 A gG at $\leq 690$ V coordination type 1 for power circuit 200 A gG at $\leq 690$ V coordination type 2 for power circuit 10 A gG for signalling circuit
Average impedance	0.6 mOhm - Ith 200 A 50 Hz for power circuit

[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit 1000 V IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Electrical durability	0.8 Mcycles 200 A AC-1 at $U_e \leq 440$ V 0.95 Mcycles 115 A AC-3 at $U_e \leq 440$ V
Power dissipation per pole	24 W AC-1 7.9 W AC-3
Front cover	With
Mounting support	Rail Plate
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 RINA CSA CCC UL GL BV LROS (Lloyds register of shipping) GOST
Connections - terminals	Control circuit screw clamp terminals 2 0.00... 0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end 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 Control circuit: screw clamp terminals 1 cable(s) 1... 2.5 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1... 2.5 mm <sup>2</sup> solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm <sup>2</sup> solid without cable end Power circuit: connector 1 cable(s) 10... 120 mm <sup>2</sup> flexible without cable end Power circuit: connector 2 cable(s) 10... 50 mm <sup>2</sup> flexible without cable end Power circuit: connector 1 cable(s) 10... 120 mm <sup>2</sup> flexible with cable end Power circuit: connector 2 cable(s) 10... 50 mm <sup>2</sup> flexible with cable end Power circuit: connector 1 cable(s) 10... 120 mm <sup>2</sup> solid without cable end Power circuit: connector 2 cable(s) 10...50 mm <sup>2</sup> solid without cable end
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 hexagonal 0.16 in (4 mm)
Operating time	6...20 ms opening 20...50 ms closing
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	8 Mcycles
Maximum operating rate	2400 cyc/h 60 °C

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.5 Uc (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.15 Uc (-40...55 °C):operational AC 50/60 Hz 1...1.15 Uc (55...70 °C):operational AC 50/60 Hz
Inrush power in VA	280...350 VA 60 Hz cos phi 0.8 (at 20 °C) 280...350 VA 50 Hz cos phi 0.8 (at 20 °C)
Hold-in power consumption in VA	2...18 VA 60 Hz cos phi 0.3 (at 20 °C) 2...18 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	3...8 W at 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
Contact compatibility	M13
Compatibility code	LC1D
Motor power range	30...50 KW 200...240 V 3 phase 55...100 KW 380...440 V 3 phase 55...100 kW 480...500 V 3 phase
Motor starter type	Direct on-line contactor
Contactor coil voltage	115 V AC standard

## 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 Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor closed: 15 Gn for 11 ms Shocks contactor open: 6 Gn for 11 ms
Height	6.22 in (158 mm)
Maximum Width	4.72 in (120 mm)
Depth	5.35 in (136 mm)
Net Weight	5.51 lb(US) (2.5 kg)

## Ordering and shipping details

Category	22359 - CTR, TESYS D, OPEN, 80-150A AC&DC
Discount Schedule	I12
GTIN	00785901932314
Nbr. of units in pkg.	1
Package weight(Lbs)	5.67 lb(US) (2.57 kg)
Returnability	No
Country of origin	CZ

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	7.40 in (18.8 cm)
Package 1 width	8.27 in (21 cm)
Package 1 Length	6.77 in (17.2 cm)
Unit Type of Package 2	S06
Number of Units in Package 2	27
Package 2 Weight	175.98 lb(US) (79.825 kg)
Package 2 Height	28.94 in (73.5 cm)
Package 2 width	23.62 in (60 cm)
Package 2 Length	31.50 in (80 cm)

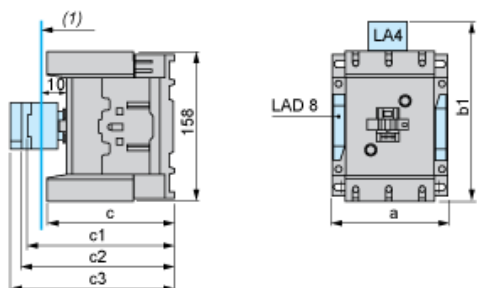
## Offer Sustainability

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>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
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.
PVC free	Yes

## Contractual warranty

Warranty	18 months
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Dimensions



(1) Minimum electrical clearance

LC1		D115 and D150 (3-pole)
a		120
b1	with LA4 DA2	174
with LA4 DF, DT	185	
with LA4 DM, DL	188	
with LA4 DW	188	
c	without cover or add-on blocks	132
with cover, without add-on blocks	136	
c1	with LAD N or C (2 or 4 contacts)	150
c2	with LA6 DK20	155
c3	with LAD T, R, S	168
with LAD T, R, S and sealing cover	172	

Wiring

