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## Main

Range	TeSys
Product name	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-4 AC-3
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	200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 150 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW	40 kW at 220...230 V AC 50/60 Hz (AC-3) 75 kW at 380...400 V AC 50/60 Hz (AC-3) 80 kW at 415...440 V AC 50/60 Hz (AC-3) 90 kW at 500 V AC 50/60 Hz (AC-3) 100 kW at 660...690 V AC 50/60 Hz (AC-3) 75 kW at 1000 V AC 50/60 Hz (AC-3) 22 kW at 400 V AC 50/60 Hz (AC-4)
Motor power HP (UL / CSA)	40 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 50 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 100 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 125 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	110 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	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1660 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1400 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	250 A 40 °C - 10 min for power circuit 580 A 40 °C - 1 min for power circuit 1200 A 40 °C - 10 s for power circuit 1400 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	10 A gG for signalling circuit conforming to IEC 60947-5-1 315 A gG at <= 690 V coordination type 1 for power circuit 250 A gG at <= 690 V coordination type 2 for power 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	0.85 Mcycles 150 A AC-3 at $U_e \leq 440$ V 1 Mcycles 200 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	24 W AC-1 13.5 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	RINA BV CSA LROS (Lloyds register of shipping) GOST UL GL DNV CCC
Connections - terminals	Control circuit: lugs-ring terminals (external diameter: 8 mm) Power circuit: lugs-ring terminals (external diameter: 25 mm) Power circuit: bars 1 cable(s) - busbar cross section: 5 x 25 mm
Tightening torque	Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver flat $\varnothing$ 6 mm M3.5 Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5 Power circuit: 12 N.m - on lugs-ring terminals hexagonal screw head 13 mm M8 Power circuit: 12 N.m - on bars hexagonal screw head 13 mm M8
Operating time	20...35 ms closing 40...75 ms opening
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	1200 cyc/h 60 °C

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.5 $U_c$ (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.15 $U_c$ (-40...55 °C):operational AC 50/60 Hz 1...1.15 $U_c$ (55...70 °C):operational AC 50/60 Hz
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	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

## 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	00785901508304
Nbr. of units in pkg.	1
Package weight(Lbs)	4.69 lb(US) (2.13 kg)
Returnability	No
Country of origin	CZ

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	6.89 in (17.5 cm)
Package 1 width	7.48 in (19 cm)
Package 1 Length	8.46 in (21.5 cm)
Unit Type of Package 2	P06
Number of Units in Package 2	27
Package 2 Weight	160.45 lb(US) (72.78 kg)
Package 2 Height	31.50 in (80 cm)
Package 2 width	31.50 in (80 cm)
Package 2 Length	23.62 in (60 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	 Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
Environmental Disclosure	 <a href="#">Product Environmental Profile</a>

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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

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### Contractual warranty

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Warranty	18 months
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