

# LC1D80G7

TeSys D IEC contactor, 80 A, 3 P, 60 HP at  
480 VAC, nonreversing, 120 VAC 50/60 Hz coil





## 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-3 AC-4 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 300 V DC 25...400 Hz Power circuit <= 690 V AC
[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 50/60 Hz AC-3) 37 KW 380...400 V AC 50/60 Hz AC-3) 45 KW 415...440 V AC 50/60 Hz AC-3) 55 KW 500 V AC 50/60 Hz AC-3) 45 KW 660...690 V AC 50/60 Hz AC-3) 45 KW 1000 V AC 50/60 Hz AC-3) 15 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	20 Hp 200/208 V AC 50/60 Hz 3 phase 7.5 Hp 115 V AC 50/60 Hz 1 phase 15 Hp 230/240 V AC 50/60 Hz 1 phase 25 Hp 230/240 V AC 50/60 Hz 3 phase 60 Hp 460/480 V AC 50/60 Hz 3 phase 60 hp 575/600 V AC 50/60 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 IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 125 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit 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	640 A 104 °F (40 °C) - 10 s power circuit 990 A 104 °F (40 °C) - 1 s power circuit 135 A 104 °F (40 °C) - 10 min power circuit 320 A 104 °F (40 °C) - 1 min power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit 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 Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Electrical durability	0.8 Mcycles 125 A AC-1 <= 440 V 1.5 Mcycles 80 A AC-3 <= 440 V

Power dissipation per pole	5.1 W AC-3 12.5 W AC-1
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 GL UL CCC LROS (Lloyds register of shipping) RINA BV GOST CSA
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 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without 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 without cable end Power circuit connector 2 0.01...0.04 in <sup>2</sup> (4...25 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 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 = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	4 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc -40...131 °F (-40...55 °C) operational AC 60 Hz 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 Uc -40...131 °F (-40...55 °C) operational AC 50 Hz 1...1.1 Uc 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	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC 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...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Operating altitude	0...9842.52 ft (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	3.35 in (85 mm)
Maximum Depth	5.12 in (130 mm)
Net Weight	3.51 lb(US) (1.59 kg)

## Ordering and shipping details

Category	22359 - CTR, TESYS D, OPEN, 80-150A AC&DC
Discount Schedule	I12
GTIN	00785901440864
Nbr. of units in pkg.	1
Package weight(Lbs)	3.44 lb(US) (1.56 kg)
Returnability	Yes
Country of origin	CZ

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	3.86 in (9.8 cm)
Package 1 width	5.35 in (13.6 cm)
Package 1 Length	6.10 in (15.5 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Weight	17.80 lb(US) (8.074 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	80
Package 3 Weight	293.52 lb(US) (133.14 kg)
Package 3 Height	31.50 in (80 cm)
Package 3 width	31.50 in (80 cm)
Package 3 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>
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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