

# LC1D80G7

IEC contactor, TeSys D, nonreversing, 80A,  
60HP at 480VAC, up to 100kA SCCR, 3 phase,  
3 NO, 120VAC 50/60Hz coil, open





## Main

Range	TeSys
Product name	TeSys D
Product or Component Type	Contacteur
Device short name	LC1D
Contactor 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)	7.5 Hp 120 V at AC 50/60 Hz for 1 phase 15 Hp 230/240 V at AC 50/60 Hz for 1 phase 30 Hp 200/208 V at AC 50/60 Hz for 3 phase 30 Hp 230/240 V at AC 50/60 Hz for 3 phase 60 Hp 460/480 V at AC 50/60 Hz for 3 phase 60 hp 575/600 V at AC 50/60 Hz for 3 phase
Control circuit type	AC 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
Overvoltage 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 Power circuit 600 V UL Power circuit 1000 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
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 EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load 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 U <sub>c</sub> -40...131 °F (-40...55 °C) operational AC 60 Hz 0.3...0.6 U <sub>c</sub> -40...158 °F (-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 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	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 signalling circuit
Minimum switching voltage	17 V 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 signalling circuit

## Environment

IP degree of protection	IP20 front face IEC 60529
Protective treatment	TH 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	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Vibrations contactor open2 Gn, 5...300 Hz Shocks contactor open8 Gn for 11 ms Vibrations contactor closed3 Gn, 5...300 Hz Shocks contactor closed10 Gn for 11 ms
Height	5.00 in (127 mm)
Width	3.35 in (85 mm)
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	3389110440867
Nbr. of units in pkg.	1
Package weight(Lbs)	3.43 lb(US) (1.558 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	30.31 in (77 cm)
Package 3 width	23.62 in (60 cm)
Package 3 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>
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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