Product data sheet
Characteristics

LC1D80JD
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 80 A - 12 V DC standard coil

Product availability : Non-Stock - Not normally stocked in distribution facility

Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-4 AC-3 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	DC standard
[Uc] control circuit voltage	12 V DC
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
Safety 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 LROS (Lloyds register of shipping) CCC GL DNV GOST UL CSA
Connections - terminals	Control circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid without cable end Power circuit connector 1 0.01…0.08 in² (4…50 mm²)flexible without cable end Power circuit connector 2 0.01…0.04 in² (4…25 mm²)flexible without cable end Power circuit connector 1 0.01…0.08 in² (4…50 mm²)flexible with cable end Power circuit connector 2 0.01…0.02 in² (4…16 mm²)flexible with cable end Power circuit connector 1 0.01…0.08 in² (4…50 mm²)solid without cable end Power circuit connector 2 0.01…0.04 in² (4…25 mm²)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 79.66 lbf.in (9 N.m) connector flat Ø 6 to Ø 8 mm Power circuit 79.66 lbf.in (9 N.m) connector hexagonal 0.16 in (4 mm)
Operating time	95...130 ms closing 20...35 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	Drop-out 0.1...0.3 Uc DC 131 °F (55 °C)) Operational 0.85...1.1 Uc DC 131 °F (55 °C))
Time constant	75 ms
Inrush power in W	22 W 68 °F (20 °C))
Hold-in power consumption in W	22 W 68 °F (20 °C)
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	23…140 °F (-5…60 °C)
Ambient air temperature for storage	-76…176 °F (-60…80 °C)
Permissible ambient air temperature around the device	-40…158 °F (-40…70 °C) at Uc
Operating altitude	9842.52 ft (3000 m) without
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 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	7.32 in (186 mm)
Net weight	5.71 lb(US) (2.59 kg)

Ordering and shipping details

Category	22359 - CTR,TESYS D,OPEN,80-150A AC&DC
Discount Schedule	I12
GTIN	00785901968719
Returnability	No
Country of origin	CZ

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 Carcinogen harm. For more information go to www.p65warnings.ca.gov
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration

Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Contractual warranty

Warranty	18 months