

LC1D80AEHE

IEC contactor, TeSys Deca Green,
nonreversing, 80A, 60HP at 480VAC, 3 phase,
3 pole, 3 NO, 48/130VAC/VDC coil, open style



Main

Range	TeSys TeSys Deca
Range of Product	TeSys Deca
Product or Component Type	Contactors
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-1 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz
[Ie] rated operational current	80 A 140 °F (60 °C) <= 440 V AC-1 power circuit 66 A 140 °F (60 °C) <= 440 V AC-3 power circuit 66 A 140 °F (60 °C) <= 440 V AC-3e power circuit
[Uc] control circuit voltage	48...130 V AC 50/60 Hz 48...130 V DC

Complementary

Motor power kW	18.5 KW 220...230 V AC 50 Hz AC-3) 37 KW 380...400 V AC 50 Hz AC-3) 37 KW 415 V AC 50 Hz AC-3) 37 KW 440 V AC 50 Hz AC-3) 37 KW 500 V AC 50 Hz AC-3) 37 kW 660...690 V AC 50 Hz AC-3)
Maximum Horse Power Rating	5 Hp 115 V at AC 60 Hz for 1 phase 10 Hp 230/240 V at AC 60 Hz for 1 phase 20 Hp 200/208 V at AC 60 Hz for 3 phase 20 Hp 230/240 V at AC 60 Hz for 3 phase 40 Hp 460/480 V at AC 60 Hz for 3 phase 50 hp 575/600 V at AC 60 Hz for 3 phase
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	80 A 140 °F (60 °C) power circuit 10 A 140 °F (60 °C) signalling circuit
Irms rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 1000 A 440 V AC power circuit IEC 60947
Rated breaking capacity	1000 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	110 A 104 °F (40 °C) - 10 min power circuit 260 A 104 °F (40 °C) - 1 min power circuit 520 A 104 °F (40 °C) - 10 s power circuit 900 A 104 °F (40 °C) - 1 s power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	125 A gG <= 690 V type 1 power circuit 125 A gG <= 690 V type 2 power circuit 10 A gG signalling circuit IEC 60947-5-1
Average impedance	1.5 mOhm - Ith 80 A 50 Hz power circuit

Power dissipation per pole	9.6 W AC-1 6.5 W AC-3 6.5 W AC-3e
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
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	6 Mcycles
Electrical durability	1 Mcycles 66 A AC-3 <= 440 V 0.5 Mcycles 80 A AC-1 <= 440 V 1 Mcycles 66 A AC-3e <= 440 V
Control circuit type	AC/DC 50/60 Hz AC/DC electronic
Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<= 0.1 Uc -40...158 °F (-40...70 °C) drop-out AC/DC 0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC/DC 1...1.1 Uc 140...158 °F (60...70 °C) operational AC/DC
Inrush power in VA	23 VA 50/60 Hz 68 °F (20 °C))
Inrush power in W	19 W 68 °F (20 °C))
Hold-in power consumption in VA	1.4 VA 50/60 Hz 68 °F (20 °C))
Hold-in power consumption in W	0.9 W 68 °F (20 °C)
Heat dissipation	0.9 W 50/60 Hz
Operating time	55...65 ms closing 20...80 ms opening
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Connections - terminals	Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) flexible with cable end Control circuit screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²) flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) solid Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) solid Power circuit EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) flexible without cable end Power circuit EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) flexible with cable end Power circuit EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) solid Power circuit EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) flexible without cable end Power circuit EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) flexible with cable end Power circuit EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) solid
Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in ² (25...35 mm ²) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in ² (1...25 mm ²) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) pozidriv No 2 M4 Control circuit 15.05 lbf.in (1.7 N.m) pozidriv No 2 M3.5
Auxiliary contact composition	1 NO + 1 NC
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 voltage	17 V signalling circuit
Minimum switching current	5 mA signalling circuit
Insulation resistance	> 10 MOhm 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
Mounting Support	Plate Rail

Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product Certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping) UKCA
IP degree of protection	IP20 front face IEC 60529
Climatic withstand	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
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 open 2 Gn, 5...300 Hz) Vibrations contactor closed 4 Gn, 5...300 Hz) Shocks contactor open 10 Gn for 11 ms) Shocks contactor closed 15 Gn for 11 ms)
Height	4.80 in (122 mm)
Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Net Weight	2.21 lb(US) (1.002 kg)

Ordering and shipping details

Category	22356-CTR, TESYS D, OPEN, 9-65A AC/DC GREEN
Discount Schedule	I12
GTIN	3606481312334
Returnability	No

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.44 in (6.2 cm)
Package 1 Width	5.39 in (13.7 cm)
Package 1 Length	6.02 in (15.3 cm)
Package 1 Weight	2.37 lb(US) (1.074 kg)
Unit Type of Package 2	S02
Number of Units in Package 2	9
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	22.21 lb(US) (10.074 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Compliant  EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration

RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	 End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Halogen content performance	Halogen free plastic parts & cables product

Contractual warranty

Warranty	18 months
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