Product data sheet
Characteristics

LC1D50AKUE
IEC contactor, TeSys D Green, nonreversing, 50A, 40HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 100/250VAC/VDC coil

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Main

Range	TeSys
Product name	TeSys D Green
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[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 50 A 140 °F (60 °C)) <= 440 V AC-3 power circuit
Motor power kW	15 KW 220...230 V AC 50 Hz AC-3) 22 KW 380...400 V AC 50 Hz AC-3) 25 KW 415 V AC 50 Hz AC-3) 30 KW 440 V AC 50 Hz AC-3) 30 KW 500 V AC 50 Hz AC-3) 33 kW 660...690 V AC 50 Hz AC-3)
Motor power HP (UL / CSA)	3 Hp 115 V at AC 60 Hz for 1 phase 7.5 Hp 230/240 V at AC 60 Hz for 1 phase 15 Hp 200/208 V at AC 60 Hz for 3 phase 15 Hp 230/240 V at AC 60 Hz for 3 phase 40 Hp 460/480 V at AC 60 Hz for 3 phase 40 hp 575/600 V at AC 60 Hz for 3 phase
[Uc] control circuit voltage	100...250 V AC 50/60 Hz 100...250 V DC
Coil type	AC/DC electronic
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overvoltage category	III
[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	900 A 440 V power circuit IEC 60947 140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1
Rated breaking capacity	900 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit 84 A 104 °F (40 °C) - 10 min power circuit 208 A 104 °F (40 °C) - 1 min power circuit 400 A 104 °F (40 °C) - 10 s power circuit 810 A 104 °F (40 °C) - 1 s power circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 100 A gG <= 690 V type 1 power circuit 100 A gG <= 690 V type 2 power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1
Electrical durability	1.8 Mcycles 42 A AC-3 <= 440 V 0.5 Mcycles 80 A AC-1 <= 440 V
Power dissipation per pole	9.6 W AC-1 3.7 W AC-3
Front cover	With
Mounting support	Rail Plate

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1
Product certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping)
Connections - terminals	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)flexible with cable end 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…0.01 in² (1…4 mm²)solid Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid Power circuit EverLink BTR screw connectors 1 0.00…0.05 in² (1…35 mm²)flexible without cable end Power circuit EverLink BTR screw connectors 1 0.00…0.05 in² (1…35 mm²)flexible with cable end Power circuit EverLink BTR screw connectors 1 0.00…0.05 in² (1…35 mm²)solid Power circuit EverLink BTR screw connectors 2 0.00…0.04 in² (1…25 mm²)flexible without cable end Power circuit EverLink BTR screw connectors 2 0.00…0.04 in² (1…25 mm²)flexible with cable end Power circuit EverLink BTR screw connectors 2 0.00…0.04 in² (1…25 mm²)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 in² (25…35 mm²) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00…0.04 in² (1…25 mm²) hexagonal 0.16 in (4 mm)
Operating time	55...65 ms closing 20...120 ms opening >= 17221) 20...80 ms opening >= 18011)
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
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

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	18 VA 50/60 Hz 68 °F (20 °C))
Inrush power in W	14 W 68 °F (20 °C)
Hold-in power consumption in VA	1.8 VA 68 °F (20 °C)) 50/60 Hz
Hold-in power consumption in W	1.2 W 68 °F (20 °C)
Heat dissipation	1.2 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 open: 2 Gn, 5...300 Hz Vibrations contactor closed4 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	2.20 lb(US) (0.997 kg)
Color	Grey (SE GREY 6) Green (SE GREEN 2)

Ordering and shipping details

Category	22356 - CTR,TESYS D,OPEN,9-65A AC/DC GREEN
Discount Schedule	I12
GTIN	00785901001706
Nbr. of units in pkg.	1
Package weight(Lbs)	2.2 lb(US) (1.00 kg)
Returnability	Yes
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.56 in (6.5 cm)
Package 1 width	5.51 in (14 cm)
Package 1 Length	6.10 in (15.5 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	9
Package 2 Weight	21.99 lb(US) (9.974 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)

Offer Sustainability

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