Product data sheet

Specifications

IEC contactor, TeSys Deca, nonreversing, 50A, 40HP at 480VAC, 3 phase, 3 pole, 3 NO, 48/130VAC/VDC coil, open style

LC1D50A6EHE

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

Main

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

Complementary

Motor power kW	15 kW at 220...230 V AC 50 Hz (AC-3) 22 kW at 380...400 V AC 50 Hz (AC-3) 25 kW at 415 V AC 50 Hz (AC-3) 30 kW at 440 V AC 50 Hz (AC-3) 30 kW at 500 V AC 50 Hz (AC-3) 33 kW at 660...690 V AC 50 Hz (AC-3) 15 kW at 220...230 V AC 50 Hz (AC-3e) 22 kW at 380...400 V AC 50 Hz (AC-3e) 25 kW at 415 V AC 50 Hz (AC-3e) 30 kW at 440 V AC 50 Hz (AC-3e) 30 kW at 500 V AC 50 Hz (AC-3e) 33 kW at 660...690 V AC 50 Hz (AC-3e)
Maximum Horse Power Rating	3 hp at 115 V AC 60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 60 Hz for 1 phase motors 15 hp at 200/208 V AC 60 Hz for 3 phase motors 15 hp at 230/240 V AC 60 Hz for 3 phase motors 40 hp at 460/480 V AC 60 Hz for 3 phase motors 40 hp at 575/600 V AC 60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	80 A (at 140 °F (60 °C)) for power circuit 10 A (at 140 °F (60 °C)) for signalling circuit

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Irms rated making capacity	900 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	84 A 104 °F (40 °C) - 10 min for power circuit 208 A 104 °F (40 °C) - 1 min for power circuit 400 A 104 °F (40 °C) - 10 s for power circuit 810 A 104 °F (40 °C) - 1 s for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 100 A gG at <= 690 V coordination type 1 for power circuit 100 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz for power circuit
Power dissipation per pole	9.6 W AC-1 3.7 W AC-3 3.7 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	1.8 Mcycles 42 A AC-3 <= 440 V 0.5 Mcycles 80 A AC-1 <= 440 V 1.8 Mcycles 42 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	25 VA 50/60 Hz (at 68 °F (20 °C))
Inrush power in W	20 W 68 °F (20 °C))
Hold-in power consumption in VA	1.8 VA 50/60 Hz (at 68 °F (20 °C))
Hold-in power consumption in W	0.9 W 68 °F (20 °C)
Heat dissipation	0.9 W at 50/60 Hz
Operating time	55...65 ms closing 20...80 ms opening
Maximum operating rate	3600 cyc/h at 60 °C
Connections - terminals	Power circuit: lugs-ring terminals - external diameter: 0.6 in (16.5 mm) Control circuit: lugs-ring terminals - external diameter: 0.3 in (8 mm)
Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) lugs-ring terminals flat Ø 6 mm M3.5 Control circuit 15.05 lbf.in (1.7 N.m) lugs-ring terminals Philips No 2 M3.5 Power circuit 53.1 lbf.in (6 N.m) lugs-ring terminals hexagonal 0.4 in (10 mm) M6 Power circuit 53.1 lbf.in (6 N.m) lugs-ring terminals pozidriv No 2 M4 Control circuit 15.05 lbf.in (1.7 N.m) lugs-ring terminals 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 for signalling circuit
Minimum switching current	5 mA for signalling circuit
Insulation resistance	> 10 MOhm 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
Mounting Support	Rail Plate

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	4.8 in (122 mm)
Width	2.2 in (55 mm)
Depth	4.7 in (120 mm)
Net Weight	2.198 lb(US) (0.997 kg)

Ordering and shipping details

Category	US10I1222357
Discount Schedule	0I12
GTIN	3606489493394
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.2 in (5.5 cm)

Package 1 Width	5.4 in (13.7 cm)
Package 1 Length	6.0 in (15.2 cm)
Package weight(Lbs)	31.9 oz (905.0 g)

Contractual warranty

Warranty	18 months

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Carbon footprint (kg CO2 eq, Total Life cycle)	37
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant with Exemptions
SCIP Number	9bb0b51e-73b5-4128-a86b-723dbbccfe86
REACh Regulation	REACh Declaration
Halogen content performance	Halogen free plastic parts & cables product

Use Again

Repack and remanufacture

Recyclability potential, in %	64
Circularity Profile	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Offer Marketing Illustration

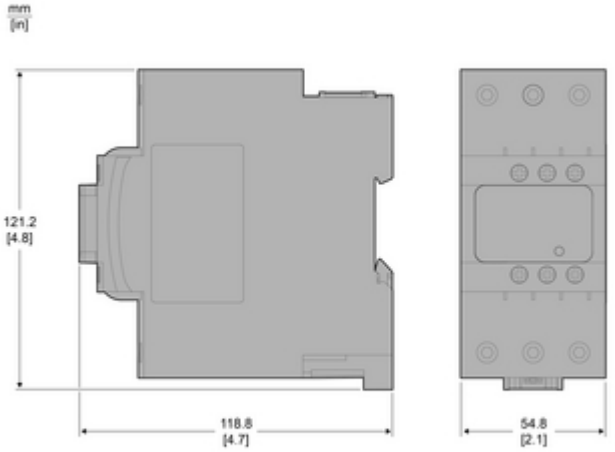
Product benefits / Features

Offer Marketing Illustration

Product benefits / Features

Offer Marketing Illustration

Product benefits / Features

Technical Illustration

Assembly's dimensions