Product data sheet

Specifications

IEC contactor, TeSys Deca, nonreversing, 80A, 40HP at 480VAC, 3 phase, 3 pole, 3 NO, 24VDC coil, open style

LC1D80A6BBE

Product availability: Stock - 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-3 AC-3e AC-1
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 66 A (at <140 °F (60 °C)) at <= 440 V AC-3 for power circuit 66 A (at <140 °F (60 °C)) at <= 440 V AC-3e for power circuit
[Uc] control circuit voltage	24 V DC

Complementary

Motor power kW	18.5 kW at 220/230 V AC 50/60 Hz (AC-3) 37 kW at 380/400 V AC 50/60 Hz (AC-3) 37 kW at 415 V AC 50/60 Hz (AC-3) 37 kW at 440 V AC 50/60 Hz (AC-3) 37 kW at 500 V AC 50/60 Hz (AC-3) 37 kW at 660/690 V AC 50/60 Hz (AC-3)
Maximum Horse Power Rating	5 hp at 115 V AC 60 Hz for 1 phase motors 10 hp at 230/240 V AC 60 Hz for 1 phase motors 20 hp at 200/208 V AC 60 Hz for 3 phase motors 20 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 50 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
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1000 A at 440 V AC for power circuit conforming to IEC 60947
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947

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

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

[Icw] rated short-time withstand current	110 A 104 °F (40 °C) - 10 min for power circuit 260 A 104 °F (40 °C) - 1 min for power circuit 520 A 104 °F (40 °C) - 10 s for power circuit 900 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	125 A gG at <= 690 V coordination type 1 for power circuit 125 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.5 mOhm - Ith 80 A 50 Hz for power circuit
Power dissipation per pole	9.6 W AC-1 6.3 W AC-3 6.3 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	10 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	DC DC low consumption
Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<= 0.1 Uc (-40…158 °F (-40…70 °C)):drop-out DC 0.8...1.2 Uc (-40…140 °F (-40…60 °C)):operational DC 1...1.2 Uc (140…158 °F (60…70 °C)):operational DC
Inrush power in W	11.5 W 68 °F (20 °C))
Hold-in power consumption in W	0.5 W 68 °F (20 °C)
Heat dissipation	0.5 W
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
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)
Product Weight	2.209 lb(US) (1.002 kg)

Ordering and shipping details

Category	US10I1222357
Discount Schedule	0I12
GTIN	3606481311948
Returnability	Yes
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.4 in (6.2 cm)
Package 1 Width	5.5 in (14 cm)
Package 1 Length	6.1 in (15.5 cm)
Package weight(Lbs)	2.222 lb(US) (1.008 kg)
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Height	5.9 in (15 cm)

Package 2 Width	11.8 in (30 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	22.917 lb(US) (10.395 kg)

Contractual warranty

Warranty (in months)	18

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

Total lifecycle Carbon footprint	**50 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**7 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.1 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.1 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**41 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**1 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
SCIP Number	**9bb0b51e-73b5-4128-a86b-723dbbccfe86**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
Halogen content performance	**Halogen free plastic parts & cables product**

Use Longer

Lifetime extension

Repair	**No**

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

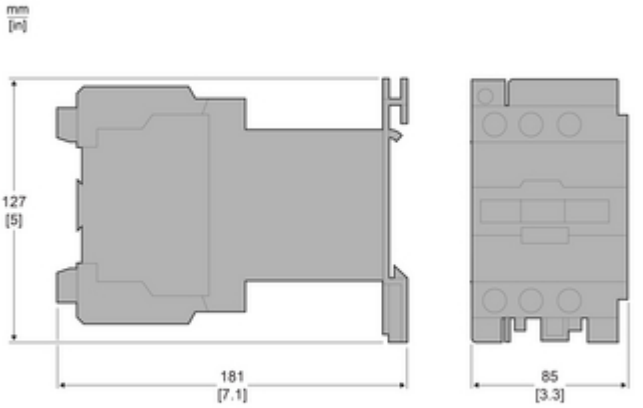
Product benefits / Features

Offer Marketing Illustration

Product benefits / Features

Offer Marketing Illustration

Product benefits / Features

Technical Illustration

Assembly's dimensions