Product data sheet
Characteristics

LC1D258ED
IEC contactor, TeSys Deca, nonreversing, 40A resistive, 4 pole, 2 NO and 2 NC, 48VDC coil, open style



Main

Range of Product	TeSys Deca Advanced
Product or Component Type	Contactor
Device short name	LC1D
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz
[Ie] rated operational current	40 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	48 V DC

Complementary

Compatibility code	LC1D
Pole contact composition	2 NO + 2 NC
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 40 A (at 140 °F (60 °C)) for power 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 60947-5-1 450 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	450 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	240 A 104 °F (40 °C) - 10 s for power circuit 380 A 104 °F (40 °C) - 1 s for power circuit 50 A 104 °F (40 °C) - 10 min for power circuit 120 A 104 °F (40 °C) - 1 min 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 63 A gG at <= 690 V coordination type 1 for power circuit 40 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2 MOhm - Ith 40 A 50 Hz for power circuit
Power dissipation per pole	3.2 W AC-1
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
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	30 Mcycles
Electrical durability	1.4 Mcycles 40 A AC-1 <= 440 V
Control circuit type	DC standard
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.25 Uc (-40…140 °F (-40…60 °C)):drop-out DC 0.7...1.25 Uc (-40…140 °F (-40…60 °C)):operational DC
Inrush power in W	5.4 W 68 °F (20 °C))
Hold-in power consumption in W	5.4 W 68 °F (20 °C)
Operating time	63 ±15 % ms closing 20 ±20 % ms opening
Time constant	28 Ms
Maximum operating rate	3600 Cyc/H at 60 °C
Connections - terminals	Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible with Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible with Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible with Control circuit: screw clamp terminals 2 0.002…0.004 in² (1…2.5 mm²) - cable stiffness: flexible w Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: solid withou Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: solid withou Power circuit: screw clamp terminals 1 0.004…0.02 in² (2.5…10 mm²) - cable stiffness: flexible wit Power circuit: screw clamp terminals 2 0.004…0.02 in² (2.5…10 mm²) - cable stiffness: flexible wit Power circuit: screw clamp terminals 1 0.004…0.02 in² (2.5…10 mm²) - cable stiffness: flexible wit Power circuit: screw clamp terminals 2 0.004…0.02 in² (2.5…10 mm²) - cable stiffness: flexible wit Power circuit: screw clamp terminals 1 0.004…0.02 in² (2.5…16 mm²) - cable stiffness: solid witho Power circuit: screw clamp terminals 2 0.004…0.02 in² (2.5…16 mm²) - cable stiffness: solid witho
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 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 15.9 lbf.in (1.8 N.m) screw clamps terminals flat Ø 6 mm Power circuit 15.9 lbf.in (1.8 N.m) screw clamps terminals Philips No 2 Power circuit 15.9 lbf.in (1.8 N.m) screw clamp terminals pozidriv No 2
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	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 60947-4-1 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ CSA C22.2 No 60947-4-1
Product Certifications	UL[RETURN]CCC[RETURN]CSA[RETURN]Marine[RETURN]UKCA[RETURN]EAC[RETURN]CB
IP degree of protection	IP20 front face IEC 60529
Protective treatment	THIEC 60068-2-30
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 closed 15 Gn for 11 ms) Shocks contactor open 8 Gn for 11 ms)
Height	3.6 In (91 mm)
Width	1.8 In (45 mm)
Depth	4.2 In (107 mm)
Net Weight	1.290 Lb(US) (0.585 kg)

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.165 In (5.500 cm)
Package 1 Width	3.740 In (9.500 cm)
Package 1 Length	4.724 In (12.000 cm)
Package weight(Lbs)	22.187 Oz (629.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	16
Package 2 Height	5.906 In (15.000 cm)
Package 2 Width	11.811 In (30.000 cm)
Package 2 Length	15.748 In (40.000 cm)
Package 2 Weight	23.257 Lb(US) (10.549 kg)

Environmental data

Recyclability potential, in %	75
Total lifecycle Carbon footprint	55 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	2.912955799545972
Carbon footprint of the manufacturing phase [A1 to A3]	3 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.16099369916532025
Carbon footprint of the distribution phase [A4]	0.2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.044581888190333124
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	50.33556756756758
Carbon footprint of the use phase [B2, B3, B4, B6]	50 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	1.4107168668267351
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint (kg CO2 eq, Total Life cycle)	55
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	50ae7612-fd2e-41e4-a369-50d0dea6e592
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony tr
PVC free	Yes
Circularity Profile	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised