Product data sheet
Characteristics

LC1D258MD
IEC contactor, TeSys Deca, nonreversing, 40A resistive, 4 pole, 2 NO and 2 NC, 220VDC coil, open style

Main

Range of Product	TeSys Deca
Product or Component Type	Contactor
Device short name	LC1D
Contactor application	Resistive load
Utilisation category	AC-1 AC-3 AC-3e AC-4
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	220 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 140 °F (60 °C)
Connections - terminals	Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 0.00…0.02 in² (2.5…10 mm²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 0.00…0.02 in² (2.5…10 mm²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 0.00…0.02 in² (2.5…10 mm²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 0.00…0.02 in² (2.5…10 mm²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 0.00…0.02 in² (2.5…16 mm²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 0.00…0.02 in² (2.5…16 mm²) - cable stiffness: solid without cable end
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 15.93 lbf.in (1.8 N.m) screw clamps terminals flat Ø 6 mm Power circuit 15.93 lbf.in (1.8 N.m) screw clamps terminals Philips No 2 Power circuit 15.93 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	Plate Rail

Environment

Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 60947-4-1 UL 60947-5-1 CSA C22.2 No 60947-4-1 CSA C22.2 No 60947-5-1 GB/T 14048.4
Product Certifications	UL[RETURN]CSA[RETURN]CCC[RETURN]EAC[RETURN]UKCA[RETURN]CB[RETURN]EU-RO-MR by DNV-GL
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	3.58 in (91 mm)
Width	1.77 in (45 mm)
Depth	4.21 in (107 mm)
Net Weight	1.29 lb(US) (0.585 kg)

Ordering and shipping details

Category	US10I1222355
Discount Schedule	0I12
GTIN	3389110432749
Returnability	No
Country of origin	SG

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.17 in (5.5 cm)
Package 1 Width	3.74 in (9.5 cm)
Package 1 Length	4.72 in (12.0 cm)
Package 1 Weight	22.12 oz (627.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	15
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	22.17 lb(US) (10.055 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	30.31 in (77.0 cm)
Package 3 Width	31.50 in (80.0 cm)
Package 3 Length	23.62 in (60.0 cm)
Package 3 Weight	338.63 lb(US) (153.6 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
PVC free	Yes

Contractual warranty

Warranty	18 months