Product data sheet
Characteristics

LC1DT80ALE7
IEC contactor, TeSys Deca, nonreversing, 80A resistive, 4 pole, 4 NO, 208VAC 50/60Hz coil, open style

Main

Range	TeSys TeSys Deca
Range of Product	TeSys Deca
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 Power circuit <= 300 V DC
[Ie] rated operational current	80 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	208 V AC 60 Hz

Complementary

Compatibility code	LC1D
Pole contact composition	4 NO
Contact compatibility	M6
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 80 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 1000 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	640 A 104 °F (40 °C) - 10 s for power circuit 900 A 104 °F (40 °C) - 1 s for power circuit 110 A 104 °F (40 °C) - 10 min for power circuit 260 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 60947-5-1 125 A gG at <= 690 V coordination type 1 for power circuit 125 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	1.6 mOhm - Ith 80 A 50 Hz for power circuit
Power dissipation per pole	10.2 W AC-1
[Ui] rated insulation voltage	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 Power circuit 690 V IEC 60947-4-1
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	1.4 Mcycles 80 A AC-1 <= 440 V

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Control circuit type	AC 60 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc -40…158 °F (-40…70 °C) drop-out AC 60 Hz 0.85...1.1 Uc -40…140 °F (-40…60 °C) operational AC 60 Hz 1...1.1 Uc 140…158 °F (60…70 °C) operational AC 60 Hz
Inrush power in VA	140 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C))
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C))
Heat dissipation	4…5 W at 60 Hz
Operating time	4...19 ms opening 12...26 ms closing
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Connections - terminals	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: 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 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: EverLink BTR screw connectors 1 0.00…0.05 in² (1…35 mm²) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 2 0.00…0.04 in² (1…25 mm²) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 1 0.00…0.05 in² (1…35 mm²) - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 2 0.00…0.04 in² (1…25 mm²) - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 1 0.00…0.05 in² (1…35 mm²) - cable stiffness: solid without cable end Power circuit: EverLink BTR screw connectors 2 0.00…0.04 in² (1…25 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 Power circuit 70.81 lbf.in (8 N.m) screw clamp terminals 0.04…0.05 in² (25…35 mm²) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) screw clamp terminals 0.00…0.04 in² (1…25 mm²) hexagonal 0.16 in (4 mm) Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 22.13 lbf.in (2.5 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 508 IEC 60335-1
Product Certifications	LROS (Lloyds register of shipping) [RETURN]BV[RETURN]GOST[RETURN]GL[RETURN]RINA[RETURN]CCC[RETURN]DNV[RETU
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 10 Gn for 11 ms)
Height	4.80 in (122 mm)
Width	2.76 in (70 mm)
Depth	4.72 in (120 mm)
Net Weight	2.54 lb(US) (1.15 kg)

Ordering and shipping details

Category	22357-CTR,TESYS D,OPEN,40-65A AC
Discount Schedule	I12
GTIN	3389118330108
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.30 in (8.382 cm)
Package 1 Width	5.50 in (13.97 cm)
Package 1 Length	6.20 in (15.748 cm)
Package 1 Weight	2.39 lb(US) (1.084 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: Cancer - www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
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.
PVC free	Yes

Contractual warranty

Warranty	18 months