Product data sheet
Characteristics

LC1D18P7TQ
Contactor, TeSys Deca, 3P(3 NO), AC-3/ AC-3e, 0 to 440V, 18A, 230VAC 50/60Hz coil, bulk qty

Main

Range	TeSys TeSys Deca
Range of product	TeSys Deca
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	32 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 18 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 18 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	230 V AC 50/60 Hz

Complementary

Motor power kW	10 KW at 500 V AC 50/60 Hz (AC-3) 10 KW at 660...690 V AC 50/60 Hz (AC-3) 4 KW at 220...230 V AC 50/60 Hz (AC-3) 7.5 KW at 380...400 V AC 50/60 Hz (AC-3) 9 KW at 415...440 V AC 50/60 Hz (AC-3) 4 KW at 400 V AC 50/60 Hz (AC-4) 10 KW at 500 V AC 50/60 Hz (AC-3e) 10 KW at 660...690 V AC 50/60 Hz (AC-3e) 4 KW at 220...230 V AC 50/60 Hz (AC-3e) 7.5 KW at 380...400 V AC 50/60 Hz (AC-3e) 9 kW at 415...440 V AC 50/60 Hz (AC-3e)
Motor power hp	1 Hp at 115 V AC 50/60 Hz for 1 phase motors conforming to UL 1 Hp at 115 V AC 50/60 Hz for 1 phase motors conforming to CSA 10 Hp at 460/480 V AC 50/60 Hz for 3 phases motors conforming to CSA 10 Hp at 460/480 V AC 50/60 Hz for 3 phases motors conforming to UL 15 Hp at 575/600 V AC 50/60 Hz for 3 phases motors conforming to CSA 15 Hp at 575/600 V AC 50/60 Hz for 3 phases motors conforming to UL 5 Hp at 200/208 V AC 50/60 Hz for 3 phases motors conforming to CSA 5 Hp at 200/208 V AC 50/60 Hz for 3 phases motors conforming to UL 3 Hp at 230...240 V AC 50/60 Hz for 1 phase motors conforming to CSA 3 Hp at 230...240 V AC 50/60 Hz for 1 phase motors conforming to UL 5 Hp at 230...240 V AC 50/60 Hz for 3 phases motors conforming to CSA 5 hp at 230...240 V AC 50/60 Hz for 3 phases motors conforming to UL
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for control circuit 32 A (at 60 °C) for power circuit
Irms rated making capacity	140 A AC for control circuit conforming to IEC 60947-5-1 300 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	300 kA at 440 V for power circuit conforming to IEC 60947

Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 35 A at <= 690 V coordination type 2 for power circuit 50 A at <= 690 V coordination type 1 for power circuit
Average impedance	2.5 mOhm - Ith 32 A 50 Hz for power circuit
Power dissipation per pole	0.8 W AC-3 2.5 W AC-1 0.8 W AC-3e
[Ui] rated insulation voltage	Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 690 V conforming to IEC 60947-4-1
Overvoltage category	III
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	15000000 cycles
Control circuit type	AC at 50/60 Hz
Coil technology	Without built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.6 Uc (60 °C):drop-out AC 50/60 Hz 0.8...1.1 Uc (60 °C):operational AC 50 Hz 0.85...1.1 Uc (60 °C):operational AC 60 Hz
Inrush power in VA	70 VA cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	7 VA 50/60 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	2…3 W at 50/60 Hz for control circuit
Operating time	4...19 ms opening 12...22 ms closing
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminal 1 1…4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminal 2 1…4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminal 1 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminal 2 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminal 1 1…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminal 2 1…2.5 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminal 1 1.5…6 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminal 2 1.5…6 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminal 1 1…6 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminal 2 1…4 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminal 1 1.5…6 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminal 2 1.5…6 mm² - cable stiffness: flexible without cable end
Tightening torque	Control circuit: 1.7 N.m - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - with screwdriver Philips No 2 Power circuit: 1.7 N.m - with screwdriver flat Ø 6 mm Power circuit: 1.7 N.m - with screwdriver Philips No 2 Control circuit: 1.7 N.m - with screwdriver pozidriv No 2 Power circuit: 1.7 N.m - with screwdriver pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
Minimum switching voltage	17 V for control circuit
Minimum switching current	5 mA for control circuit
Insulation resistance	> 10 MOhm for control circuit
Non-overlap time	1.5 Ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Mounting support	Plate Rail

Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 CSA C22.2 No 14 UL 508 IEC 60335-1
Product certifications	RINA CSA DNV LROS (Lloyds register of shipping) CCC GOST UL GL BV UKCA
IP degree of protection	IP2X conforming to IEC 60529 IP2X conforming to VDE 0106
Climatic withstand	Conforming to IACS E10 exposure to damp heat Conforming to IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-5…60 °C -40…70 °C at Uc
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor opened (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz)
Height	77 mm
Width	45 mm
Depth	86 mm
Net weight	3.3 kg
Quantity per set	Set of 10

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	15 cm
Package 1 Width	30 cm
Package 1 Length	40 cm
Package 1 Weight	338 g
Unit Type of Package 2	S02
Number of Units in Package 2	24
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	8.63 kg
Unit Type of Package 3	P06
Number of Units in Package 3	384
Package 3 Height	75 cm
Package 3 Width	60 cm
Package 3 Length	80 cm
Package 3 Weight	145.572 kg

Offer Sustainability

Sustainable offer status	Green Premium product
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