Product data sheet
Characteristics

LC2D18E7C
Reversing contactor, TeSys Deca, 3P(3NO), AC-3, <=440V, 18A, 48V AC 50/60Hz coil, china, screw clamp terminals



Commercial status
End of Commercialisation :

⚠ End of Commercialisation

Main

Range	TeSys TeSys Deca
Product name	TeSys Deca
Product or component type	Reversing contactor
Device short name	LC2D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-3
Device presentation	Preassembled with reversing power busbar
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	18 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 32 A (at <60 °C) at <= 440 V AC AC-1 for power circuit

Complementary

Motor power kW	4 KW at 220...230 V AC 50/60 Hz 7.5 KW at 380...400 V AC 50/60 Hz 9 KW at 415...440 V AC 50/60 Hz 10 KW at 500 V AC 50/60 Hz 10 KW at 660...690 V AC 50/60 Hz
Motor power hp	1 Hp at 115 V AC 50/60 Hz for 1 phase motors 3 Hp at 230/240 V AC 50/60 Hz for 1 phase motors 5 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 5 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 10 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 15 Hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	48 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 KV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 32 A (at 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 60947-5-1 300 A at 440 V for power circuit conforming to IEC 60947

Rated breaking capacity	300 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	40 A 40 °C - 10 min for power circuit 84 A 40 °C - 1 min for power circuit 145 A 40 °C - 10 s for power circuit 240 A 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	10 A gG for signalling circuit conforming to IEC 60947-5-1 50 A gG at <= 690 V coordination type 1 for power circuit 35 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2.5 MOhm - Ith 32 A 50 Hz for power circuit
[Ui] rated insulation voltage	690 V conforming to IEC 60947-4-1 600 V CSA certified 600 V UL certified 690 V conforming to IEC 60947-1
Electrical durability	1.65 Mcycles 18 A AC-3 at Ue <= 440 V 1 Mcycles 32 A AC-1 at Ue <= 440 V
Power dissipation per pole	0.8 W AC-3 2.5 W AC-1
Protective cover	With
Interlocking type	Mechanical
Mounting support	Plate Rail
Connections - terminals	Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 1.5…6 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 1.5…6 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 1…6 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1.5…6 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 1.5…6 mm² - cable stiffness: solid without cable end
Tightening torque	Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Operating time	12...22 ms closing 4...19 ms opening
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	15 Mcycles
Maximum operating rate	3600 Cyc/H 60 °C
Coil technology	Without built-in suppressor module
Control circuit voltage limits	Drop-out: 0.3...0.6 Uc at 50/60 Hz (at <60 °C) Operational: 0.8...1.1 Uc at 50 Hz (at <60 °C) Operational: 0.85...1.1 Uc at 60 Hz (at <60 °C)
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	2…3 W at 50/60 Hz
Auxiliary contacts type	Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching current	5 MA for signalling circuit
Minimum switching voltage	17 V 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
Insulation resistance	> 10 MOhm for signalling circuit

Environment

Standards	IEC 60947-5-1 EN 60947-5-1 CSA C22.2 No 14 IEC 60947-4-1 EN 60947-4-1
Product certifications	CCC[RETURN]CE[RETURN]UKCA
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40…60 °C
Ambient air temperature for storage	-60…80 °C
Permissible ambient air temperature around the device	60…70 °C at Uc
Operating altitude	3000 m
Fire resistance	850 °C conforming to 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 open: 10 Gn for 11 ms Shocks contactor closed: 15 Gn for 11 ms
Height	77 Mm
Width	90 Mm
Depth	86 Mm
Net weight	0.707 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	13.5 Cm
Package 1 Width	11.5 Cm
Package 1 Length	9 Cm
Package 1 Weight	750.25 G

Offer Sustainability

Recyclability potential, in %	65
Total lifecycle Carbon footprint	382 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	3.9384670983216514
Carbon footprint of the manufacturing phase [A1 to A3]	4 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	1.0878429039497992
Carbon footprint of the distribution phase [A4]	1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.0021581473816486493
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	376.3184485604288
REACh free of SVHC	Yes
Carbon footprint of the use phase [B2, B3, B4, B6]	376 kg CO2 eq.
Toxic heavy metal free	Yes
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	1.1485598590765853
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	382
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
REACh Regulation	Free of Substances of Very High Concern above the threshold

EU RoHS Directive	Compliant
PVC free	Yes
Silicone-free	Yes
End of life manual availability	End Of Life Information
Take-back	No

Contractual warranty

Warranty (in months)	18

Product Life Status : End of commerc. - Block