Product data sheet
Characteristics

LC1D18B7C
Contactor, TeSys Deca, 3P(3 NO), AC-3/ AC-3e, 0 to 440V, 18A, 24VAC 50/60Hz coil, Screw terminal



Commercial status
End of Commercialisation :

⚠ End of Commercialisation

Main

Range	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-4 AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 225 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 18 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	24 V AC 50/60 Hz

Complementary

Motor power kW	10 KW at 500 V AC 50/60 Hz (AC-3) 4 KW at 220/240 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) 10 KW at 660/690 V AC 50/60 Hz (AC-3) 10 KW at 500 V AC 50/60 Hz (AC-3e) 4 KW at 220/240 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) 10 KW at 660/690 V AC 50/60 Hz (AC-3e)
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 32 A (at 60 °C) for power circuit
[Icw] rated short-time withstand current	145 A 40 °C - 10 s for power circuit 240 A 40 °C - 1 s for power circuit 40 A 40 °C - 10 min for power circuit 84 A 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 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	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Overvoltage category	III
Pollution degree	3
[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	15 Mcycles
Electrical durability	1 Mcycles 32 A AC-1 at Ue <= 440 V 1.6 Mcycles 18 A AC-3 at Ue <= 440 V 3 Mcycles 11 A AC-3 at Ue 660/690 V 1.6 Mcycles 18 A AC-3e at Ue <= 440 V 3 Mcycles 11 A AC-3e at Ue 660/690 V
Control circuit type	AC at 50/60 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc (-40…60 °C):drop-out 50/60 Hz 0.8...1.1 Uc (-40…60 °C):operational 50 Hz 0.85...1.1 Uc (-40…60 °C):operational 60 Hz
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	6 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
Operating time	12...22 ms closing 4...19 ms opening
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 - external diameter: 8 mm - cable stiffness: fle Power circuit: screw clamp terminals 2 1.5…6 mm² - external diameter: 8 mm - cable stiffness: fle Power circuit: screw clamp terminals 1 1…6 mm² - external diameter: 8 mm - cable stiffness: flexi Power circuit: screw clamp terminals 2 1…4 mm² - external diameter: 8 mm - cable stiffness: flexi Power circuit: screw clamp terminals 1 1.5…6 mm² - external diameter: 8 mm - cable stiffness: so Power circuit: screw clamp terminals 2 1.5…6 mm² - external diameter: 8 mm - cable stiffness: so
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 Power circuit: 1.7 N.m - on cable connector - with screwdriver flat Ø 6 mm M3.5 Power circuit: 1.7 N.m - on cable connector - with screwdriver Philips No 2 M3.5 Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
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
Auxiliary contact composition	1 NO + 1 NC
Signalling circuit frequency	25...400 Hz
Minimum switching current	5 MA for signalling circuit
Minimum switching voltage	17 V 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	IEC 60947-1 IEC 60947-4-1 GB/T 14048.4
Product certifications	CE[RETURN]UKCA[RETURN]CCC
IP degree of protection	IP2X front face for main circuit conforming to IEC 60529 IP2X front face for coil circuit conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Permissible ambient air temperature around the device	-40…60 °C operation 60…70 °C with derating -60…80 °C storage
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-11
Mechanical robustness	Vibrations contactor open (2 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Vibrations contactor closed (4 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Shocks 11 ms contactor open (10 Gn) conforming to IEC 60068-2-27 Shocks 11 ms contactor closed (15 gn) conforming to IEC 60068-2-27
Height	77 Mm
Width	45 Mm
Depth	86 Mm
Net weight	0.33 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.129 Cm
Package 1 Width	7.763 Cm
Package 1 Length	9.387 Cm
Package 1 Weight	357.5 G
Unit Type of Package 2	S02
Number of Units in Package 2	24
Package 2 Height	15.0 Cm
Package 2 Width	30.0 Cm
Package 2 Length	40.0 Cm
Package 2 Weight	9.0 Kg
Unit Type of Package 3	PAL
Number of Units in Package 3	384
Package 3 Height	60.0 Cm
Package 3 Width	80.0 Cm
Package 3 Length	75.0 Cm
Package 3 Weight	144.416 Kg

Offer Sustainability

Recyclability potential, in %	65
Total lifecycle Carbon footprint	191 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	1.8383226908714922
Carbon footprint of the manufacturing phase [A1 to A3]	2 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.5077626001462996
Carbon footprint of the distribution phase [A4]	0.5 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.0010073389475870641
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	188.1592242802144
REACh free of SVHC	Yes
Carbon footprint of the use phase [B2, B3, B4, B6]	188 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]	0.5361029045194812
Carbon footprint of the end-of-life phase [C1 to C4]	0.5 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	191
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