Product data sheet
Characteristics

LC1D18KUE
TeSys D contactor 3P 18A AC-3 up to 440V coil 100-250V AC/DC

Main

Range	TeSys
Product name	TeSys D Green
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	18 A (at <60 °C) at <= 440 V AC-3 for power circuit 32 A (at <60 °C) at <= 440 V AC-1 for power circuit
Motor power kW	4 KW at 220...230 V AC 50 Hz (AC-3) 7.5 KW at 380...400 V AC 50 Hz (AC-3) 9 KW at 415 V AC 50 Hz (AC-3) 9 KW at 440 V AC 50 Hz (AC-3) 10 KW at 500 V AC 50 Hz (AC-3) 10 kW at 660...690 V AC 50 Hz (AC-3)
Motor power HP (UL / CSA)	1 Hp at 115 V AC 60 Hz for 1 phase motors 3 Hp at 230/240 V AC 60 Hz for 1 phase motors 5 Hp at 200/208 V AC 60 Hz for 3 phases motors 5 Hp at 230/240 V AC 60 Hz for 3 phases motors 10 Hp at 460/480 V AC 60 Hz for 3 phases motors 15 hp at 575/600 V AC 60 Hz for 3 phases motors
[Uc] control circuit voltage	100...250 V AC 50/60 Hz 100...250 V DC
Coil type	AC/DC electronic
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	100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit 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
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
Electrical durability	2.2 Mcycles 15 A AC-3 at Ue <= 440 V 0.9 Mcycles 32 A AC-1 at Ue <= 440 V

Power dissipation per pole	2.5 W AC-1 0.8 W AC-3
Safety cover	With
Mounting support	Plate Rail
Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1
Product certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping)
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²solid Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²solid Power circuit: screw clamp terminals 1 cable(s) 1.5…6 mm²flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 1.5…6 mm²flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 1…6 mm²flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1…4 mm²flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1.5…6 mm²solid Power circuit: screw clamp terminals 2 cable(s) 1.5…6 mm²solid
Tightening torque	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 screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2
Operating time	45...55 ms closing 20...90 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

Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<= 0.1 Uc 60 °C drop-out 0.85...1.1 Uc 60 °C operational
Inrush power in VA	25 VA 50/60 Hz (at 20 °C)
Inrush power in W	18 W at 20 °C
Hold-in power consumption in VA	1.6 VA (at 20 °C) 50/60 Hz
Hold-in power consumption in W	1.1 W at 20 °C
Heat dissipation	1.1 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

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	-25…60 °C
Ambient air temperature for storage	-60…80 °C
Permissible ambient air temperature around the device	-40…70 °C at Uc
Operating altitude	3000 m without
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	45 mm
Depth	86 mm
Net weight	0.378 kg
Colour	Grey (SE GREY 6) Green (SE GREEN 2)

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
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

Contractual warranty

Warranty	18 months