Product data sheet
Characteristics

LC1D506FWS207
TeSys D contactor S207 - 3P (3NO) AC-3 50A <=440V - coil 110V DC wide

Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW	15 kW at 220/230 V AC 50 Hz (AC-3) 22 kW at 380/400 V AC 50 Hz (AC-3) 25 kW at 415 V AC 50 Hz (AC-3) 30 kW at 440 V AC 50 Hz (AC-3) 30 kW at 500 V AC 50 Hz (AC-3) 33 kW at 660/690 V AC 50 Hz (AC-3) 30 kW at 1000 V AC 50 Hz (AC-3)
[Uc] control circuit voltage	110 V DC
Coil type	Wide range
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit
Irms rated making capacity	900 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	900 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 400 A 40 °C - 10 s for power circuit 810 A 40 °C - 1 s for power circuit 84 A 40 °C - 10 min for power circuit

	208 A 40 °C - 1 min for power circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 100 A gG at <= 690 V coordination type 1 for power circuit 100 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Electrical durability	1.45 Mcycles 50 A AC-3 at Ue <= 440 V 1.1 Mcycles 80 A AC-1 at Ue <= 440 V
Power dissipation per pole	9.6 W AC-1 3.7 W AC-3
Safety cover	With
Mounting support	Rail Plate
Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 EN 45545 R22 HL3 EN 45545 R26 HL3 DIN 5510-2
Product certifications	IEC CCC
Connections - terminals	Control circuit: lugs-ring terminals (external diameter: 8 mm) Power circuit: lugs-ring terminals (external diameter: 16 mm)
Tightening torque	Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5 Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5 Power circuit: 5 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M6 Power circuit: 5 N.m - on lugs-ring terminals - with screwdriver Philips No 3 M6
Operating time	20...35 ms opening 85...110 ms closing
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	20 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.1...0.3 Uc 55 °C drop-out DC Uc -40…70 °C operational DC 0.75...1.2 Uc -5…60 °C operational DC
Time constant	65 ms
Inrush power in W	22 W at 20 °C
Hold-in power consumption in W	22 W at 20 °C
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	-5…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	V0 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: 8 Gn for 11 ms Shocks contactor closed: 10 Gn for 11 ms
Height	127 mm
Width	75 mm
Depth	176 mm
Net weight	2.185 kg