Product datasheet

Specifications





Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 12A, 380V AC 50/60Hz coil, screw clamp terminals

LC1D12Q7

Main

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-4 AC-3 AC-3e	
Poles Description	3P	
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC	
[le] Rated Operational Current	25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 12 A (at <60 °C) at <= 440 V AC AC-3e for power circuit	
[Uc] Control Circuit Voltage	380 V AC 50/60 Hz	

Complementary

Motor Power Kw	3 kW at 220230 V AC 50/60 Hz (AC-3)
	5.5 kW at 380400 V AC 50/60 Hz (AC-3)
	5.5 kW at 415440 V AC 50/60 Hz (AC-3)
	7.5 kW at 500 V AC 50/60 Hz (AC-3)
	7.5 kW at 660690 V AC 50/60 Hz (AC-3)
	3.7 kW at 400 V AC 50/60 Hz (AC-4)
	3 kW at 220230 V AC 50/60 Hz (AC-3e)
	5.5 kW at 380400 V AC 50/60 Hz (AC-3e)
	5.5 kW at 415440 V AC 50/60 Hz (AC-3e)
	7.5 kW at 500 V AC 50/60 Hz (AC-3e)
	7.5 kW at 660690 V AC 50/60 Hz (AC-3e)
Motor Power Hp	0.5 hp at 115 V AC 50/60 Hz for 1 phase motors
·	2 hp at 230/240 V AC 50/60 Hz for 1 phase motors
	3 hp at 200/208 V AC 50/60 Hz for 3 phases motors
	3 hp at 230/240 V AC 50/60 Hz for 3 phases motors
	7.5 hp at 460/480 V AC 50/60 Hz for 3 phases motors
	10 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Compatibility Code	LC1D
Pole Contact Composition	3 NO
Protective Cover	With
[Ith] Conventional Free Air	25 A (at 60 °C) for power circuit
Thermal Current	10 A (at 60 °C) for signalling circuit
Irms Rated Making Capacity	250 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	250 A at 440 V for power circuit conforming to IEC 60947

[Icw] Rated Short-Time Withstand	105 A 40 °C - 10 s for power circuit
Current	210 A 40 °C - 1 s for power circuit
	30 A 40 °C - 10 min for power circuit
	61 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 oC for signalling sirguit conforming to IEC 60047 F 1
Associated I use Nating	10 A gG for signalling circuit conforming to IEC 60947-5-1
	40 A gG at <= 690 V coordination type 1 for power circuit 25 A gG at <= 690 V coordination type 2 for power circuit
	23 A gG at \= 050 V Cooldination type 2 for power circuit
Average Impedance	2.5 mOhm - Ith 25 A 50 Hz for power circuit
Power Dissipation Per Pole	0.36 W AC-3
	1.56 W AC-1
	0.36 W AC-3e
[Ui] Rated Insulation Voltage	Power circuit: 690 V conforming to IEC 60947-4-1
	Power circuit: 600 V CSA certified
	Power circuit: 600 V UL certified
	Signalling circuit: 690 V conforming to IEC 60947-1
	Signalling circuit: 600 V CSA certified
	Signalling circuit: 600 V UL certified
Overvoltage Category	Ш
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
Florida I Bonalillo	•
Electrical Durability	2 Mcycles 12 A AC-3 at Ue <= 440 V
	0.8 Mcycles 25 A AC-1 at Ue <= 440 V
	2 Mcycles 12 A AC-3e at Ue <= 440 V
Control Circuit Type	AC at 50/60 Hz
Coil Technology	Without built-in suppressor module
Control Circuit Voltage Limits	0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz
	0.81.1 Uc (-4060 °C):operational AC 50 Hz
	0.851.1 Uc (-4060 °C):operational AC 60 Hz
	11.1 Uc (6070 °C):operational AC 50/60 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	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	23 W at 50/60 Hz
Operating Time	1222 ms closing
	419 ms opening
Maximum Operating Rate	3600 cyc/h 60 °C

Connections - Terminals	Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without
	cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without
	cable end
	Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 2 12.5 mm ² - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end
	Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable
	end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without
	cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without
	cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable
	end
	Control circuit: screw clamp terminals 2 12.5 mm ² - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 1 14 mm ² - cable stiffness: solid without cable end
	Control circuit: screw clamp terminals 2 14 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
Auxiliary Contact Composition	Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 1 NO + 1 NC
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	25400 Hz
Minimum Switching Voltage	17 V for signalling circuit
Minimum Switching Current	5 mA for signalling circuit
nsulation Resistance	> 10 MOhm for signalling circuit
Non-Overlap Time	1.5 ms on de-energisation between NC and NO contact1.5 ms on energisation between NC and NO contact
Mounting Support	Rail
	Plate
Environment	
Standards	CSA C22.2 No 14
	EN 60947-4-1 EN 60947-5-1
	IEC 60947-4-1
	IEC 60947-5-1 UL 508
	IEC 60335-1
Product Certifications	GL
	BV DNV
	LROS (Lloyds register of shipping)
	RINA
	UL CCC
	CCC CSA
	GOST
	UKCA CB
p Degree Of Protection	IP20 front face conforming to IEC 60529
Protective Treatment	TH conforming to IEC 60068-2-30

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	-4060 °C 6070 °C with derating
Operating Altitude	03000 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, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 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	0.325 kg

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5.000 cm
Package 1 Width	9.200 cm
Package 1 Length	11.200 cm
Package 1 Weight	352.000 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	20
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	7.334 kg

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

⊘	Reach Free Of Svhc
⊘	Toxic Heavy Metal Free
⊘	Mercury Free
⊘	Rohs Exemption Information Yes
⊘	Pvc Free

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant EU RoHS Declaration
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Pro-active China RoHS declaration (out of China RoHS legal scope) Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information