Product data sheet
Characteristics

LC1D12EHE
Contactor, TeSys Deca, 3P(3 NO), AC-3/ AC-3e, 0 to 440V, 12A, 48-130VAC/DC coil

Main

Range	TeSys TeSys Deca
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	25 A (at <60 °C) at <= 440 V AC-1 for power circuit 12 A (at <60 °C) at <= 440 V AC-3 for power circuit 12 A (at <60 °C) at <= 440 V AC-3e for power circuit
[Uc] control circuit voltage	48...130 V AC 50/60 Hz 48...130 V DC

Complementary

Motor power kW	3 KW at 220...230 V AC 50 Hz (AC-3) 5.5 KW at 380...400 V AC 50 Hz (AC-3) 5.5 KW at 415 V AC 50 Hz (AC-3) 5.5 KW at 440 V AC 50 Hz (AC-3) 7.5 KW at 500 V AC 50 Hz (AC-3) 7.5 KW at 660...690 V AC 50 Hz (AC-3) 3 KW at 220...230 V AC 50 Hz (AC-3e) 5.5 KW at 380...400 V AC 50 Hz (AC-3e) 5.5 KW at 415 V AC 50 Hz (AC-3e) 5.5 KW at 440 V AC 50 Hz (AC-3e) 7.5 KW at 500 V AC 50 Hz (AC-3e) 7.5 KW at 660...690 V AC 50 Hz (AC-3e)
Motor power hp	0.5 Hp at 115 V AC 60 Hz for 1 phase motors 2 Hp at 230/240 V AC 60 Hz for 1 phase motors 3 Hp at 200/208 V AC 60 Hz for 3 phases motors 3 Hp at 230/240 V AC 60 Hz for 3 phases motors 7.5 Hp at 460/480 V AC 60 Hz for 3 phases motors 10 Hp at 575/600 V AC 60 Hz for 3 phases motors
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 25 A (at 60 °C) for power 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 current	100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit 30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s for power circuit
Associated fuse rating	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
Average impedance	2.5 MOhm - Ith 25 A 50 Hz for power circuit
Power dissipation per pole	1.56 W AC-1 0.36 W AC-3 0.36 W AC-3e
[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	2.3 Mcycles 11 A AC-3 at Ue <= 440 V 0.8 Mcycles 25 A AC-1 at Ue <= 440 V 2.3 Mcycles 11 A AC-3e at Ue <= 440 V
Control circuit type	AC/DC at 50/60 Hz AC/DC electronic
Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<= 0.1 Uc (-40…70 °C):drop-out AC/DC 0.85...1.1 Uc (-40…60 °C):operational AC/DC 1...1.1 Uc (60…70 °C):operational AC/DC
Inrush power in VA	25 VA 50/60 Hz (at 20 °C)
Inrush power in W	24 W (at 20 °C)
Hold-in power consumption in VA	1.3 VA 50/60 Hz (at 20 °C)
Hold-in power consumption in W	0.8 W at 20 °C
Heat dissipation	0.8 W at 50/60 Hz
Operating time	45...55 ms closing 20...90 ms opening
Maximum operating rate	3600 Cyc/H 60 °C
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 Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid Power circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid Power circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid

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 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 contact composition	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	25...400 Hz
Minimum switching voltage	17 V for signalling circuit
Minimum switching current	5 MA 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	Plate Rail

Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping) UKCA
IP degree of protection	IP20 front face conforming to IEC 60529
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	-40…60 °C 60…70 °C with derating
Operating altitude	0...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	45 Mm
Depth	86 Mm
Net weight	0.373 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.4 Cm
Package 1 Width	9.5 Cm
Package 1 Length	11.4 Cm
Package 1 Weight	393.0 G
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.0 Cm
Package 2 Width	30.0 Cm
Package 2 Length	40.0 Cm
Package 2 Weight	6.207 Kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
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
Halogen content performance	Halogen free plastic parts & cables product

Contractual warranty

Warranty	18 months

Product Life Status : Commercialised