Product data sheet
Characteristics

LC1D1156U7
Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 115A, 240V AC 50/60Hz coil, lugs/ bars terminals

Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-1 AC-4 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 115 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 115 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	240 V AC 50/60 Hz

Complementary

Motor power kW	30 KW at 220...230 V AC 50/60 Hz (AC-3) 55 KW at 380...400 V AC 50/60 Hz (AC-3) 59 KW at 415...440 V AC 50/60 Hz (AC-3) 75 KW at 500 V AC 50/60 Hz (AC-3) 80 KW at 660...690 V AC 50/60 Hz (AC-3) 65 KW at 1000 V AC 50/60 Hz (AC-3) 18.5 KW at 400 V AC 50/60 Hz (AC-4) 30 KW at 220...230 V AC 50/60 Hz (AC-3e) 55 KW at 380...400 V AC 50/60 Hz (AC-3e) 59 KW at 415...440 V AC 50/60 Hz (AC-3e) 75 KW at 500 V AC 50/60 Hz (AC-3e) 80 KW at 660...690 V AC 50/60 Hz (AC-3e) 65 kW at 1000 V AC 50/60 Hz (AC-3e)
Motor power hp	30 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 40 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 75 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 100 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M13
Protective cover	With
[Ith] conventional free air thermal current	200 A (at 60 °C) for power circuit
Irms rated making capacity	1260 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	1100 A at 440 V for power circuit conforming to IEC 60947

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[Icw] rated short-time withstand current	250 A 40 °C - 10 min for power circuit 550 A 40 °C - 1 min for power circuit 950 A 40 °C - 10 s for power circuit 1100 A 40 °C - 1 s 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	250 A gG at <= 690 V coordination type 1 for power circuit 200 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit
Average impedance	0.6 mOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	24 W AC-1 7.9 W AC-3 7.9 W AC-3e
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	8 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	8 Mcycles
Electrical durability	0.8 Mcycles 200 A AC-1 at Ue <= 440 V 0.95 Mcycles 115 A AC-3 at Ue <= 440 V 0.95 Mcycles 115 A AC-3e at Ue <= 440 V
Control circuit type	AC at 50/60 Hz
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.5 Uc (-40…70 °C):drop-out AC 50/60 Hz 0.8...1.15 Uc (-40…55 °C):operational AC 50/60 Hz 1...1.15 Uc (55…70 °C):operational AC 50/60 Hz
Inrush power in VA	280…350 VA 60 Hz cos phi 0.8 (at 20 °C) 280…350 VA 50 Hz cos phi 0.8 (at 20 °C)
Hold-in power consumption in VA	2…18 VA 60 Hz cos phi 0.3 (at 20 °C) 2…18 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	3…8 W at 50/60 Hz
Operating time	6...20 ms opening 20...50 ms closing
Maximum operating rate	2400 cyc/h 60 °C
Connections - terminals	Control circuit: lugs-ring terminals - external diameter: 8 mm Power circuit: lugs-ring terminals - external diameter: 25 mm Power circuit: bars 1 - busbar cross section: 5 x 25 mm
Tightening torque	Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5 Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5 Power circuit: 12 N.m - on lugs-ring terminals hexagonal screw head 13 mm M8 Power circuit: 12 N.m - on bars hexagonal screw head 13 mm M8 Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver pozidriv No 2 M3.5
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	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	DNV CSA LROS (Lloyds register of shipping) GL CCC UL BV GOST RINA UKCA CE
IP 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	-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 closed (15 Gn for 11 ms) Shocks contactor open (6 Gn for 11 ms)
Height	158 mm
Width	120 mm
Depth	136 mm
Product weight	2.5 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	17.5 cm
Package 1 Width	19.0 cm
Package 1 Length	21.5 cm
Package 1 Weight	2.19 kg
Unit Type of Package 2	S06
Number of Units in Package 2	16
Package 2 Height	75.0 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	48.04 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
PVC free	Yes

Contractual warranty

Warranty	18 months