Product datasheet

Specifications

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 115 A - 24 V DC standard coil

Local distributor code: 386021538 LC1D115BD

Main

Range	TeSys
Product name	TeSys D TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-4 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 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
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)
Motor power HP (UL / CSA)	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
Control circuit type	DC standard
[Uc] control circuit voltage	24 V DC
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	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

[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
[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
Electrical durability	0.8 Mcycles 200 A AC-1 at Ue <= 440 V 0.95 Mcycles 115 A AC-3 at Ue <= 440 V
Power dissipation per pole	24 W AC-1 7.9 W AC-3
Front cover	With
Mounting support	Plate Rail
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	CCC UL BV CSA GL GOST DNV LROS (Lloyds register of shipping) RINA UKCA
Connections - terminals	Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…2.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…2.5 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1…2.5 mm²solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²solid without cable end Power circuit: connector 1 cable(s) 10…120 mm²flexible without cable end Power circuit: connector 2 cable(s) 10…50 mm²flexible without cable end Power circuit: connector 1 cable(s) 10…120 mm²flexible with cable end Power circuit: connector 2 cable(s) 10…50 mm²flexible with cable end Power circuit: connector 1 cable(s) 10…120 mm²solid without cable end Power circuit: connector 2 cable(s) 10…50 mm²solid without cable end
Tightening torque	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Operating time	20...35 ms closing 40...75 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	8 Mcycles
Maximum operating rate	1200 cyc/h 60 °C

Complementary

Coil technology	With integral suppression device
Control circuit voltage limits	0.75...1.2 Uc (-40…55 °C):operational DC 0.15...0.4 Uc (-40…70 °C):drop-out DC 1...1.2 Uc (55…70 °C):operational DC
Time constant	25 ms

Inrush power in W	270…365 W (at 20 °C)
Hold-in power consumption in W	2.4…5.1 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
Climatic withstand	conforming to IACS E10
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40…60 °C 60…70 °C with derating
Ambient air temperature for storage	-60…80 °C
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
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
Net weight	2.5 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	2.478 kg
Package 1 Height	20 cm
Package 1 width	22 cm
Package 1 Length	23 cm
Unit Type of Package 2	P06
Number of Units in Package 2	27
Package 2 Weight	79.798 kg
Package 2 Height	75 cm
Package 2 width	80 cm
Package 2 Length	60 cm

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 Product out of China RoHS scope. Substance declaration for your information
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

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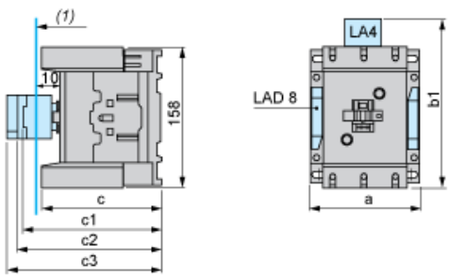
Dimensions Drawings

Dimensions



(1) Minimum electrical clearance

LC1		D115 and D150 (3-pole)
a		120
b1	with LA4 DA2	174
	with LA4 DF, DT	185
	with LA4 DM, DL	188
	with LA4 DW	188
c	without cover or add-on blocks	132
	with cover, without add-on blocks	136
c1	with LAD N or C (2 or 4 contacts)	150
c2	with LA6 DK20	155
c3	with LAD T, R, S	168
	with LAD T, R, S and sealing cover	172

Wiring