

# LC1D115BD

IEC contactor, TeSys Deca, nonreversing, 115A, 75HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VDC coil, open style



## Main

Range	TeSys
Range of Product	TeSys Deca
Product or Component Type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load Motor control
Utilisation category	AC-4 AC-1 AC-3 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 <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 115 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 115 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	24 V DC

## 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)
Maximum Horse Power Rating	30 Hp at 200/208 V AC 50/60 Hz for 3 phase motors 40 Hp at 230/240 V AC 50/60 Hz for 3 phase motors 75 Hp at 460/480 V AC 50/60 Hz for 3 phase motors 100 hp at 575/600 V AC 50/60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M10
Protective cover	With
[Ith] conventional free air thermal current	200 A (at 140 °F (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 104 °F (40 °C) - 10 min for power circuit 550 A 104 °F (40 °C) - 1 min for power circuit 950 A 104 °F (40 °C) - 10 s for power circuit 1100 A 104 °F (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[RETURN]Power circuit 600 V UL[RETURN]Power circuit 1000 V IEC 60947-4-1[RETURN]Signalling circuit 690 V IEC 60947-1[RETURN]Signalling circuit 600 V CSA[RETURN]Signalling circuit 600 V UL
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Safety reliability level	B10d = 684932 cycles contactor with nominal load EN/ISO 13849-1 B10d = 1000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	8 Mcycles
Electrical durability	0.8 Mcycles 200 A AC-1 ≤ 440 V 0.95 Mcycles 115 A AC-3 ≤ 440 V 0.95 Mcycles 115 A AC-3e ≤ 440 V
Control circuit type	DC standard
Coil technology	With integral suppression device
Control circuit voltage limits	0.75...1.2 Uc -40...131 °F (-40...55 °C) operational DC 0.15...0.4 Uc -40...158 °F (-40...70 °C) drop-out DC 1...1.2 Uc 131...158 °F (55...70 °C) operational DC
Inrush power in W	270...365 W 68 °F (20 °C))
Hold-in power consumption in W	2.4...5.1 W 68 °F (20 °C)
Operating time	20...35 ms closing 40...75 ms opening
Time constant	25 ms
Maximum operating rate	1200 cyc/h 140 °F (60 °C)
Connections - terminals	Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: solid without cable end
Tightening torque	Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals Philips No 2 Power circuit 106.21 lbf.in (12 N.m) connector hexagonal 0.16 in (4 mm) Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC 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	CCC[RETURN]UL[RETURN]BV[RETURN]CSA[RETURN]GL[RETURN]GOST[RETURN]DNV[RETURN] (Lloyds register of shipping)[RETURN]RINA[RETURN]UKCA[RETURN]CE
IP degree of protection	IP20 front face IEC 60529
Protective treatment	THIEC 60068-2-30
Climatic withstand	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
Operating altitude	0...9842.52 ft (0...3000 m)
Fire resistance	1562 °F (850 °C) 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	6.22 in (158 mm)
Width	4.72 in (120 mm)
Depth	5.35 in (136 mm)
Net Weight	5.51 lb(US) (2.5 kg)

## Ordering and shipping details

Category	22359-CTR, TESYS D, OPEN, 80-150A AC&DC
Discount Schedule	I12
GTIN	3389110376463
Returnability	Yes
Country of origin	CZ

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.66 in (22.000 cm)
Package 1 Width	7.87 in (20.000 cm)
Package 1 Length	9.06 in (23.000 cm)
Package 1 Weight	5.46 lb(US) (2.478 kg)
Unit Type of Package 2	P06
Number of Units in Package 2	27
Package 2 Height	29.53 in (75.000 cm)
Package 2 Width	23.62 in (60.000 cm)
Package 2 Length	31.50 in (80.000 cm)
Package 2 Weight	175.92 lb(US) (79.798 kg)

## Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
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



(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	

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Wiring

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