

# LC1D40AEHE

IEC contactor, TeSys Deca Green, nonreversing, 40A, 30HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 48/130VAC/VDC coil



## Main

Range	TeSys TeSys Deca
Range of Product	TeSys Deca
Product or Component Type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-3 AC-1 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz
[Ie] rated operational current	60 A (at <140 °F (60 °C)) at <= 440 V AC-1 for power circuit 40 A (at <140 °F (60 °C)) at <= 440 V AC-3 for power circuit 40 A (at <140 °F (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	11 kW at 220...230 V AC 50 Hz (AC-3) 18.5 kW at 380...400 V AC 50 Hz (AC-3) 22 kW at 415 V AC 50 Hz (AC-3) 22 kW at 440 V AC 50 Hz (AC-3) 22 kW at 500 V AC 50 Hz (AC-3) 30 kW at 660...690 V AC 50 Hz (AC-3) 11 kW at 220...230 V AC 50 Hz (AC-3e) 18.5 kW at 380...400 V AC 50 Hz (AC-3e) 22 kW at 415 V AC 50 Hz (AC-3e) 22 kW at 440 V AC 50 Hz (AC-3e) 22 kW at 500 V AC 50 Hz (AC-3e) 30 kW at 660...690 V AC 50 Hz (AC-3e)
Maximum Horse Power Rating	3 Hp at 115 V AC 60 Hz for 1 phase motors 5 Hp at 230/240 V AC 60 Hz for 1 phase motors 10 Hp at 200/208 V AC 60 Hz for 3 phase motors 10 Hp at 230/240 V AC 60 Hz for 3 phase motors 30 Hp at 460/480 V AC 60 Hz for 3 phase motors 30 hp at 575/600 V AC 60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	60 A (at 140 °F (60 °C)) for power circuit 10 A (at 140 °F (60 °C)) for signalling circuit
Irms rated making capacity	800 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	800 A at 440 V for power circuit conforming to IEC 60947

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[Icw] rated short-time withstand current	72 A 104 °F (40 °C) - 10 min for power circuit 165 A 104 °F (40 °C) - 1 min for power circuit 320 A 104 °F (40 °C) - 10 s for power circuit 720 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	80 A gG at ≤ 690 V coordination type 1 for power circuit 80 A gG at ≤ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.5 mOhm - Ith 60 A 50 Hz for power circuit
Power dissipation per pole	5.4 W AC-1 2.4 W AC-3 2.4 W AC-3e
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	6 Mcycles
Electrical durability	2 Mcycles 35 A AC-3 ≤ 440 V 0.7 Mcycles 60 A AC-1 ≤ 440 V 2 Mcycles 35 A AC-3e ≤ 440 V
Control circuit type	AC/DC 50/60 Hz AC/DC electronic
Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	≤ 0.1 Uc -40...158 °F (-40...70 °C) drop-out AC/DC 0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC/DC 1...1.1 Uc 140...158 °F (60...70 °C) operational AC/DC
Inrush power in VA	23 VA 50/60 Hz (at 68 °F (20 °C))
Inrush power in W	19 W 68 °F (20 °C))
Hold-in power consumption in VA	1.4 VA 50/60 Hz (at 68 °F (20 °C))
Hold-in power consumption in W	0.9 W 68 °F (20 °C)
Heat dissipation	0.9 W at 50/60 Hz
Operating time	55...65 ms closing 20...120 ms opening ≥ 17221) 20...80 ms opening ≥ 18011)
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Connections - terminals	Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible with 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 with cable end Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid Control circuit: screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid Power circuit: EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: solid Power circuit: EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) - cable stiffness: solid
Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) pozidriv No 2 Control circuit 15.05 lbf.in (1.7 N.m) 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	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[RETURN]CSA[RETURN]EAC[RETURN]UL[RETURN]KC[RETURN]DNV-GL[RETURN]LROS (Lloyds register of shipping)[RETURN]UKCA
IP degree of protection	IP20 front face IEC 60529
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 open 10 Gn for 11 ms) Shocks contactor closed 15 Gn for 11 ms)
Height	4.80 in (122 mm)
Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Net Weight	2.19 lb(US) (0.992 kg)

## Ordering and shipping details

Category	22356-CTR,TESYS D,OPEN,9-65A AC/DC GREEN
Discount Schedule	I12
GTIN	3606480988219
Returnability	Yes
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.44 in (6.2 cm)
Package 1 Width	5.43 in (13.8 cm)
Package 1 Length	6.10 in (15.5 cm)
Package 1 Weight	2.32 lb(US) (1.054 kg)
Unit Type of Package 2	S02
Number of Units in Package 2	9
Package 2 Height	5.91 in (15 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	21.59 lb(US) (9.793 kg)

## Offer Sustainability

Sustainable offer status	Green Premium product
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.
Halogen content performance	Halogen free plastic parts & cables product

## Contractual warranty

Warranty	18 months
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