

# LC2D80ABBE

TeSys Deca reversing contactor 3P 66A AC-3/  
AC-3e up to 440V coil 24V DC



## Main

Range	TeSys TeSys Deca
Product name	Tesys Deca green TeSys Deca
Product or Component Type	Reversing contactor
Device short name	LC2D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-3 AC-3e
Device presentation	Preassembled with reversing power busbar
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <140 °F (60 °C)) at <= 440 V AC-1 for power circuit 66 A (at <140 °F (60 °C)) at <= 440 V AC-3 for power circuit 66 A (at <140 °F (60 °C)) AC-3e for power circuit
Motor power kW	18.5 KW at 220...230 V AC 50 Hz 37 KW at 380...400 V AC 50 Hz 37 KW at 415 V AC 50 Hz 37 KW at 440 V AC 50 Hz 37 KW at 500 V AC 50 Hz 37 kW at 660...690 V AC 50 Hz
Motor power HP (UL / CSA)	5 Hp at 115 V AC 60 Hz for 1 phase motors 10 Hp at 230/240 V AC 60 Hz for 1 phase motors 20 Hp at 200/208 V AC 60 Hz for 3 phase motors 20 Hp at 230/240 V AC 60 Hz for 3 phase motors 40 Hp at 460/480 V AC 60 Hz for 3 phase motors 50 hp at 575/600 V AC 60 Hz for 3 phase motors
Control circuit type	DC low consumption
[Uc] control circuit voltage	24 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 80 A (at 140 °F (60 °C)) for power circuit
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1000 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1000 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 520 A 104 °F (40 °C) - 10 s for power circuit 900 A 104 °F (40 °C) - 1 s for power circuit 110 A 104 °F (40 °C) - 10 min for power circuit 260 A 104 °F (40 °C) - 1 min for power circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 125 A gG at <= 690 V coordination type 1 for power circuit 125 A gG at <= 690 V coordination type 2 for power circuit

Average impedance	1.5 mOhm - lth 80 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1
Electrical durability	1 Mcycles 66 A AC-3 <= 440 V 0.5 Mcycles 80 A AC-1 <= 440 V 1 Mcycles 66 A AC-3e
Power dissipation per pole	9.6 W AC-1 6.5 W AC-3 6.5 W AC-3e
Front cover	With
Interlocking type	Mechanical
Mounting Support	Rail Plate
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]JUL[RETURN]KC[RE GL[RETURN]LROS (Lloyds register of shipping) [RETURN]UKCA
Connections - terminals	Control circuit screw clamp terminals 1 0.002... 0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 2 0.002... 0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Power circuit EverLink BTR screw connectors 1 0.002...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible with cable end Power circuit EverLink BTR screw connectors 2 0.002...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.002... 0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid Control circuit screw clamp terminals 2 0.002... 0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid Power circuit EverLink BTR screw connectors 1 0.002...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )solid Power circuit EverLink BTR screw connectors 2 0.002...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )solid Control circuit screw clamp terminals 1 0.002... 0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible Control circuit screw clamp terminals 2 0.002... 0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible Power circuit EverLink BTR screw connectors 1 0.002...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible Power circuit EverLink BTR screw connectors 2 0.002...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible
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 70.8 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> ) hexagonal 0.2 in (4 mm) Power circuit 44.3 lbf.in (5 N.m) EverLink BTR screw connectors 0.002...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) hexagonal 0.2 in (4 mm)
Operating time	55...65 ms closing 20...80 ms opening
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
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

## Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<= 0.1 Uc -40...158 °F (-40...70 °C) drop-out DC 0.8...1.2 Uc -40...140 °F (-40...60 °C) operational DC 1...1.2 Uc 140...158 °F (60...70 °C) operational DC
Inrush power in W	11 W 68 °F (20 °C)
Hold-in power consumption in W	0.5 W 68 °F (20 °C)
Heat dissipation	0.5 W
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 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 IEC 60529
Climatic withstand	IACS E10 IEC 60947-1 Annex Q category D
Protective treatment	TH IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
Ambient Air Temperature for Storage	-76...176 °F (-60...80 °C)
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 open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor open10 Gn for 11 ms Shocks contactor closed15 Gn for 11 ms
Height	4.8 in (122 mm)
Width	4.7 in (119 mm)
Depth	4.7 in (120 mm)
Net Weight	4.793 lb(US) (2.174 kg)
Color	Gray SE GREY 6) Green SE GREEN 2)

## Ordering and shipping details

Category	US10I1222356
Discount Schedule	0I12
GTIN	3606481309426
Returnability	No
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.5 in (14 cm)
Package 1 Width	6.4 in (16.2 cm)
Package 1 Length	7.8 in (19.8 cm)
Package 1 Weight	5.051 lb(US) (2.291 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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