Product data sheet
Characteristics

LC2D80B7
TeSys Deca reversing contactor - 3P(3 NO) - AC-3/AC-3e - <= 440 V 80 A - 24 V AC coil

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.



Main

Range	TeSys
Product name	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 AC-4
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 Power circuit <= 300 V DC
[Ie] rated operational current	125 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit 80 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit 80 A 140 °F (60 °C)) <= 440 V AC AC-3e power circuit 55 A 140 °F (60 °C)) <= 400 V AC AC-4 power circuit
Motor power kW	22 KW 220...230 V AC 50 Hz 37 KW 380...400 V AC 50 Hz 45 KW 415...440 V AC 50 Hz 55 KW 500 V AC 50 Hz 45 kW 660...690 V AC 50 Hz
Motor power HP (UL / CSA)	20 Hp 200/208 V at AC 60 Hz for 3 phase 7.5 Hp 115 V at AC 60 Hz for 1 phase 15 Hp 230/240 V at AC 60 Hz for 1 phase 25 Hp 230/240 V at AC 60 Hz for 3 phase 60 Hp 460/480 V at AC 60 Hz for 3 phase 60 hp 575/600 V at AC 60 Hz for 3 phase
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	24 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 125 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 1100 A 440 V power circuit IEC 60947
Rated breaking capacity	1100 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	135 A 104 °F (40 °C) - 10 min power circuit 320 A 104 °F (40 °C) - 1 min power circuit 640 A 104 °F (40 °C) - 10 s power circuit 990 A 104 °F (40 °C) - 1 s power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 200 A gG <= 690 V type 1 power circuit 160 A gG <= 690 V type 2 power circuit
Average impedance	0.8 mOhm - Ith 125 A 50 Hz power circuit

[Ui] rated insulation voltage	Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL Power circuit 1000 V IEC 60947-4-1
Electrical durability	0.8 Mcycles 125 A AC-1 <= 440 V 1.5 Mcycles 80 A AC-3 <= 440 V 1.5 Mcycles 80 A AC-3e <= 440 V
Power dissipation per pole	12.5 W AC-1 5.1 W AC-3 5.1 W AC-3e
Front cover	With
Interlocking type	Mechanical
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	UL CSA RINA GOST CCC DNV LROS (Lloyds register of shipping) GL BV UKCA
Connections - terminals	Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid Control circuit screw clamp terminals 1 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Power circuit connector 1 0.01…0.08 in² (4…50 mm²)flexible without cable end Power circuit connector 2 0.01…0.04 in² (4…25 mm²)flexible without cable end Power circuit connector 1 0.01…0.08 in² (4…50 mm²)flexible with cable end Power circuit connector 2 0.01…0.02 in² (4…16 mm²)flexible with cable end Power circuit connector 1 0.01…0.08 in² (4…50 mm²)solid Power circuit connector 2 0.01…0.04 in² (4…25 mm²)solid
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 flat Ø 6 to Ø 8 mm 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
Operating time	20...35 ms closing 6...20 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	4 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc -40…158 °F (-40…70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40…131 °F (-40…55 °C) operational AC 50 Hz 0.85...1.1 Uc -40…131 °F (-40…55 °C) operational AC 60 Hz 1...1.1 Uc 131…158 °F (55…70 °C) operational AC 50/60 Hz
Inrush power in VA	245 VA 60 Hz 0.75 68 °F (20 °C)) 245 VA 50 Hz 0.75 68 °F (20 °C))
Hold-in power consumption in VA	26 VA 60 Hz 0.3 68 °F (20 °C)) 26 VA 50 Hz 0.3 68 °F (20 °C))
Heat dissipation	6…10 W 50/60 Hz
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 signalling circuit
Minimum switching voltage	17 V 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 signalling circuit

Environment

IP degree of protection	IP20 front face IEC 60529
Climatic withstand	IACS E10
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 Shocks contactor open8 Gn for 11 ms Vibrations contactor closed3 Gn, 5...300 Hz Shocks contactor closed10 Gn for 11 ms
Height	5.00 in (127 mm)
Width	7.17 in (182 mm)
Depth	6.22 in (158 mm)
Product Weight	7.05 lb(US) (3.2 kg)

Ordering and shipping details

Category	22359-CTR,TESYS D,OPEN,80-150A AC&DC
Discount Schedule	I12
GTIN	3389110462890
Returnability	No
Country of origin	CZ

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.48 in (19.0 cm)
Package 1 Width	7.87 in (20.0 cm)
Package 1 Length	10.04 in (25.5 cm)
Package 1 Weight	8.23 lb(US) (3.735 kg)
Unit Type of Package 2	S03
Number of Units in Package 2	2
Package 2 Height	11.81 in (30.0 cm)

Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	17.46 lb(US) (7.918 kg)

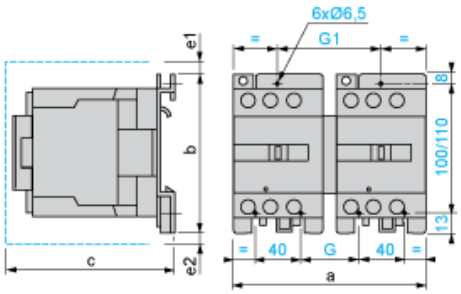
Offer Sustainability

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 www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
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

Dimensions



LC2 or 2 x LC1	a	b	c	e1	e2	G	G1
D80 and D95 (AC)	182	127	158	13	–	57	96
c, e1 and e2: including cabling.							

Wiring

