

Product data sheet

Characteristics

LC2D50AEHE

TeSys; TeSys Deca, Reversing contactor, 3P(3 NO), AC-3, 0 to 440V, 50A, 48 to 130VAC/DC coil





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
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	50 A (at <60 °C) at ≤ 440 V AC-3 for power circuit 80 A (at <60 °C) at ≤ 440 V AC-1 for power circuit
Motor power kW	15 kW at 220...230 V AC 50 Hz 22 kW at 380...400 V AC 50 Hz 25 kW at 415 V AC 50 Hz 30 kW at 440 V AC 50 Hz 30 kW at 500 V AC 50 Hz 33 kW at 660...690 V AC 50 Hz
Motor power HP (UL / CSA)	3 Hp at 115 V AC 60 Hz for 1 phase motors 7.5 Hp at 230/240 V AC 60 Hz for 1 phase motors 15 Hp at 200/208 V AC 60 Hz for 3 phases motors 15 Hp at 230/240 V AC 60 Hz for 3 phases motors 40 Hp at 460/480 V AC 60 Hz for 3 phases motors 40 hp at 575/600 V AC 60 Hz for 3 phases motors
Control circuit type	AC at 50/60 Hz AC/DC electronic DC AC/DC electronic
[Uc] control circuit voltage	48...130 V AC 50/60 Hz 48...130 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 80 A (at 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 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	900 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 400 A 40 °C - 10 s for power circuit 810 A 40 °C - 1 s for power circuit 84 A 40 °C - 10 min for power circuit 208 A 40 °C - 1 min for power circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz for power circuit

[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Electrical durability	1.8 Mcycles 42 A AC-3 at $U_e \leq 440$ V 0.5 Mcycles 80 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1
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]UL[RETURN]KC[RE GL[RETURN]LROS (Lloyds register of shipping) [RETURN]UKCA
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm ² solid Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm ² solid Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm ² flexible without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm ² flexible without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm ² flexible with cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm ² flexible with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm ² solid Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm ² solid
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm ² hexagonal screw head 4 mm Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm ² hexagonal screw head 4 mm
Operating time	55...65 ms closing 20...120 ms opening (date code ≥ 17221) 20...80 ms opening (date code ≥ 18011)
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	6 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	$\leq 0.1 U_c$ (-40...70 °C):drop-out AC/DC 0.85...1.1 U_c (-40...60 °C):operational AC/DC 1...1.1 U_c (60...70 °C):operational AC/DC
Inrush power in VA	23 VA 50/60 Hz (at 20 °C)
Inrush power in W	19 W at 20 °C
Hold-in power consumption in VA	1.4 VA (at 20 °C) 50/60 Hz

Hold-in power consumption in W	0.9 W at 20 °C
Heat dissipation	0.9 W at 50/60 Hz
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 Conforming to IEC 60947-1 Annex Q category D
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
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	122 mm
Width	119 mm
Depth	120 mm
Net weight	2.164 kg
Colour	Grey (SE GREY 6) Green (SE GREEN 2)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	14.0 cm
Package 1 Width	16.2 cm
Package 1 Length	19.8 cm
Package 1 Weight	2.281 kg
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	10.003 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
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
Halogen content performance	Halogen free plastic parts & cables product
Contractual warranty	
Warranty	18 months