

# Product data sheet

## Characteristics

# LC1D656BD

contactor TeSys LC1-D - 3 poles - AC-3 440V  
65 A - coil 24 V DC



### Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contacteur
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-4 AC-2 AC-1
Poles description	3P
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <60 °C) at ≤ 440 V AC AC-1 for power circuit 65 A (at <60 °C) at ≤ 440 V AC AC-3 for power circuit
[Uc] control circuit voltage	24 V DC

### Complementary

Motor power kW	30 kW at 440 V AC 50 Hz 30 kW at 380...400 V AC 50 Hz 37 kW at 500 V AC 50 Hz 37 kW at 660...690 V AC 50 Hz 18.5 kW at 220...230 V AC 50 Hz 30 kW at 415 V AC 50 Hz 37 kW at 1000 V AC 50 Hz
Motor power hp	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 phases motors 20 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 50 hp at 575/600 V AC 60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for control circuit 80 A (at 60 °C) for power circuit
Irms rated making capacity	250 A DC for control 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
Associated fuse rating	10 A gG for control 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
Power dissipation per pole	4.2 W AC-3 6.4 W AC-1

[Ui] rated insulation voltage	Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1
Overvoltage category	III
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
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	10000000 cycles
Control circuit type	DC standard
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.3 Uc (-40...70 °C):drop-out DC 0.75...1.25 Uc (-40...60 °C):operational DC 1...1.25 Uc (60...70 °C):operational DC
Inrush power in W	19 W (at 20 °C)
Hold-in power consumption in W	7.4 W at 20 °C
Rated operational power in W	14 W at 24 V DC-13 - electrical durability: 10000000 cycles - for control circuit 48 W at 24 V DC-13 - electrical durability: 3000000 cycles - for control circuit 96 W at 24 V DC-13 - electrical durability: 1000000 cycles - for control circuit
Operating time	20 ms opening 50 ms closing
Time constant	34 ms
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Control circuit: lugs - external diameter: 8 mm Power circuit: lugs - external diameter: 16 mm
Tightening torque	Control circuit: 1.7 N.m - on lugs - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on lugs - with screwdriver flat Ø 6 mm Power circuit: 2.5 N.m - on lugs - with screwdriver flat Ø 8 mm Control circuit: 1.7 N.m - on lugs - with screwdriver pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
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
Minimum switching voltage	17 V for control circuit
Minimum switching current	5 mA for control circuit
Insulation resistance	> 10 MOhm for control circuit
Non-overlap time	1.5 Ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Mounting support	Plate Rail

## Environment

Standards	CSA C22.2 No 14 IEC 60947-5-1 UL 508 EN 60947-4-1 IEC 60947-4-1 EN 60947-5-1
Product certifications	BV[RETURN]CCC[RETURN]GL[RETURN]CSA[RETURN]LROS (Lloyds register of shipping)[RETURN]RINA[RETURN]GOST[RETURN]DNV[RETURN]JUL
IP degree of protection	IP2X conforming to IEC 60529 IP2X conforming to VDE 0106
Climatic withstand	Conforming to IACS E10 exposure to damp heat
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor opened (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz)
Height	127 mm
Width	85 mm

Depth	176 mm
Net weight	2.185 kg

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	9 cm
Package 1 Width	14.5 cm
Package 1 Length	18 cm
Package 1 Weight	2.175 kg

### Offer Sustainability

Sustainable offer status	Green Premium product
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
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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