# Product data sheet Characteristics

# LC1D38BD

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 38 A - 24 V DC standard coil

Product availability: Stock - Normally stocked in distribution facility



Price\*: 241.00 USD



#### Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-4 AC-3 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC
[le] rated operational current	50 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 38 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW	18.5 kW at 500 V AC 50/60 Hz (AC-3) 18.5 kW at 660690 V AC 50/60 Hz (AC-3) 7.5 kW at 400 V AC 50/60 Hz (AC-4) 18.5 kW at 380400 V AC 50/60 Hz (AC-3) 9 kW at 220230 V AC 50/60 Hz (AC-3) 18.5 kW at 415440 V AC 50/60 Hz (AC-3)
Motor power HP (UL / CSA)	10 hp at 230/240 V AC 50/60 Hz for 3 phases motors 10 hp at 200/208 V AC 50/60 Hz for 3 phases motors 5 hp at 240 V AC 50/60 Hz for 1 phase motors 20 hp at 480 V AC 50/60 Hz for 3 phases motors 25 hp at 600 V AC 50/60 Hz for 3 phases motors
Control circuit type	DC standard
[Uc] control circuit voltage	24 V DC
Auxiliary contact composition	1 NO + 1 NC

<sup>\*</sup> Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Verworkings category	[Limp] rated impulse withstand voltage	6 kV conforming to IEC 60947
The conventional free air thermal	Uimp] rated impulse withstand voltage Overvoltage category	6 kV conforming to IEC 60947
250 A D C for signalling circuit conforming to IEC 60947-S-1   550 A 440 V power circuit IEC 60947   100	[lth] conventional free air thermal	10 A (at 60 °C) for signalling circuit
[tow  rated short-time withstand current   \$0.4 10.4 °F. (40°C) = 10 min power circuit   49.0 a.1 0.4 °F. (40°C) = 1.5 power circuit   49.0 a.1 0.4 °F. (40°C) = 1.5 power circuit   49.0 a.1 0.4 °F. (40°C) = 1.5 power circuit   10.0 a.1 a.5 min power circuit   12.0 a. 500 ms for singalling circuit   12.0 a. 500 ms for singa	Irms rated making capacity	250 A DC for signalling circuit conforming to IEC 60947-5-1
430 A 104 *F (40 *C) - 1 s power circuit   150 A 104 *F (40 *C) - 10 s power circuit   310 A 104 *F (40 *C) - 10 s power circuit   310 A 104 *F (40 *C) - 10 s power circuit   310 A 104 *F (40 *C) - 10 s power circuit   120 A - 500 ms for signalling circuit   120 A - 500 ms for signalling circuit   140 A - 100 ms for signalling circuit   140 A - 100 ms for signalling circuit conforming to IEC 60947-5-1   38 A 9G <- 690 V type 1 power circuit   63 A 9G <- 690 V type 1 power circuit   63 A 9G <- 690 V type 1 power circuit   7	Rated breaking capacity	550 A 440 V power circuit IEC 60947
Average impedance 2 mOhm - Ith 50 A 50 Hz power circuit  Average impedance 2 mOhm - Ith 50 A 50 Hz power circuit  Average impedance 2 mOhm - Ith 50 A 50 Hz power circuit  Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 600 V VU. Signalling circuit 600 V VU. Signalling circuit 600 V VU. Power circuit 600 V VI. Power dissipation per pole 3 W AC-1 at U = <= 440 V Power dissipation per pole 5 W AC-1 at U = <= 440 V Power dissipation per pole 7 W AC-1 at U = <= 440 V Power dissipation per pole 8 W AC-1 at U = <= 440 V Power dissipation per pole 9 Plate Rail  Standards CSA C22 No 14 EN 60947-8-1 EN 6	[lcw] rated short-time withstand current	430 A 104 °F (40 °C) - 1 s power circuit 150 A 104 °F (40 °C) - 1 min power circuit 310 A 104 °F (40 °C) - 10 s power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit
European   Fower circuit 600 V CSA   Power circuit 600 V CSA   Power circuit 600 V CSA   Power circuit 600 V CSA   Signalling circuit 600 V CSA   Signal	Associated fuse rating	63 A gG <= 690 V type 1 power circuit
Power circuit 600 V UL.  Signaling circuit 600 V CSA Signaling circuit 600 V CSA Signaling circuit 600 V UL.  Power circuit 690 V conforming to IEC 60947-4-1  Electrical durability  1.4 Moycles 50 A AC-1 at Ue <= 440 V 1.4 Moycles 50 A AC-3 at Ue <= 440 V  Power dissipation per pole  5 W AC-1 3 W AC-3  Front cover  With  Mounting support  Plate Rail  Standards  CSA C22.2 No 14 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 IEC 60947-6-1	Average impedance	2 mOhm - Ith 50 A 50 Hz power circuit
1.4 Mcycles 38 A AC-3 at Ue <= 440 V	[Ui] rated insulation voltage	Power circuit 600 V UL Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
Front cover With  Mounting support Plate Rail  Standards CSA C22.2 No 14 EN 60947-4-1 EN 60947-4-1 EIC 60947-4-1 EIC 60947-4-1 EIC 60947-6-1 UL 508  Product certifications RINA GOST CSA BV DNV LROS (Lloyds register of shipping) UL CCC GL  Connections - terminals  Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 1 cable(s) 12 fm²flexible without cable end Control circuit screw clamp terminals 1 cable(s) 14 mm²flexible without cable end Control circuit screw clamp terminals 1 cable(s) 14 mm²flexible without cable end Control circuit screw clamp terminals 1 cable(s) 14 mm²flexible without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 1 cable(s) 1.510 mm²solid without cable end Power circuit screw clamp terminals 1 cable(s) 1.510 mm²solid without cable end Power circuit screw	Electrical durability	
Plate   Rail	Power dissipation per pole	
Standards  CSA C2.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508  Product certifications  RINA GOST CSA BV DNV LROS (Lloyds register of shipping) UL CCC GL  Connections - terminals  Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit screw clamp terminals 2 0.0001 in² (14 mm²flexible without cable end Control circuit screw clamp terminals 1 0.0001 in² (14 mm²flexible without cable end Control circuit screw clamp terminals 1 0.0001 in² (14 mm²flexible without cable end Control circuit screw clamp terminals 2 0.00001 in² (14 mm²flexible without cable end Control circuit screw clamp terminals 1 0.0001 in² (14 mm²flexible with cable end Control circuit screw clamp terminals 1 0.0001 in² (14 mm²flexible with cable end Control circuit screw clamp terminals 1 0.0001 in² (14 mm²flexible with cable end Power circuit screw clamp terminals 2 0.0001 in² (2.510 mm²flexible with cable end Power circuit screw clamp terminals 1 0.0002 in² (2.510 mm²flexible with cable end Power circuit screw clamp terminals 1 0.0001 in² (110 mm²flexible with cable end Power circuit screw clamp terminals 1 0.0001 in² (15 mm²flexible with cable end Power circuit screw clamp terminals 1 0.0001 in² (1.55 mm²flexible with cable end Power circuit screw clamp terminals 2 0.0001 in² (1.55 mm²flexible with cable end Power circuit screw clamp terminals 2 0.0001 in² (1.55 mm²flexible with cable end Power circuit screw clamp terminals 2 0.0001 in² (1.55 mm²flexible with cable end Power circuit screw clamp terminals 2 0.0001 in² (1.55 mm²flexible with cable end Power circuit 2.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2 Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2 Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2	Front cover	With
EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508  Product certifications  RINA GOST CSA BV DNV LROS (Lloyds register of shipping) UL CCC GL  Connections - terminals  Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 1 cable(s) 14 mm²flexible without cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.000.02 in² (2.510 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit screw clamp terminals 2	Mounting support	
GOST CSA BV DNV LROS (Lloyds register of shipping) UL CCC GL  Connections - terminals  Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 1 cable(s) 14 mm²)flexible without cable end Control circuit screw clamp terminals 1 cable(s) 14 mm²)flexible without cable end Control circuit screw clamp terminals 1 cable(s) 14 mm²)solid without cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)solid without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.000.02 in² (2.510 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (110 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (15 mm²)flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1.510 mm²solid without cable end Power circuit: screw clamp terminals 2 cable(s) 1.510 mm²solid without cable end Power circuit: screw clamp terminals 2 cable(s) 2.510 mm²solid without cable end Power circuit: screw clamp terminals 2 cable(s) 2.510 mm²solid without cable end Power circuit 2.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2  Operating time  1624 ms opening 53.5572.45 ms closing	Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1
Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible with cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)solid without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (2.510 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.000.02 in² (2.510 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.000.02 in² (110 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.000.02 in² (110 mm²)flexible with cable end Power circuit screw clamp terminals 1 cable(s) 1.510 mm²solid without cable end Power circuit: screw clamp terminals 1 cable(s) 1.510 mm²solid without cable end Power circuit: screw clamp terminals 2 cable(s) 2.510 mm²solid without cable end Power 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 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2  Operating time  1624 ms opening 53.5572.45 ms closing	Product certifications	GOST CSA BV DNV LROS (Lloyds register of shipping) UL CCC
Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2  Operating time  1624 ms opening 53.5572.45 ms closing	Connections - terminals	Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible with cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)solid without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 1 0.000.02 in² (2.510 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.000.02 in² (2.510 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.000.02 in² (110 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.01 in² (1.56 mm²)flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1.510 mm²solid without cable end
53.5572.45 ms closing	Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm
Safety reliability level B10d = 1369863 cycles contactor with nominal load conforming to FN/ISO 13849-1	Operating time	
B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1	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	30 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor	
Control circuit voltage limits	0.10.25 Uc (-4070 °C):drop-out DC 0.71.25 Uc (-4060 °C):operational DC 11.25 Uc 140158 °F (6070 °C) operational DC	
Time constant	28 ms	
Inrush power in W	5.4 W (at 20 °C)	
Hold-in power consumption in W	5.4 W at 20 °C	
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	25400 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	
Contact compatibility	M4	
Compatibility code	LC1D	

#### **Environment**

LITVITOTITIETIL	
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-4060 °C 6070 °C with derating
Ambient air temperature for storage	-76176 °F (-6080 °C)
Operating altitude	03000 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, 5300 Hz Vibrations contactor closed: 4 Gn, 5300 Hz Shocks contactor closed: 15 Gn for 11 ms Shocks contactor open8 Gn for 11 ms
Height	3.35 in (85 mm)
Width	1.77 in (45 mm)
Depth	3.98 in (101 mm)
Net Weight	1.19 lb(US) (0.54 kg)

## Ordering and shipping details

Category	22355 - CTR,TESYS D,OPEN,9-38A DC
Discount Schedule	112
GTIN	00785901640271
Nbr. of units in pkg.	1
Package weight(Lbs)	1.29 lb(US) (0.59 kg)
Returnability	Yes
Country of origin	ID

#### Packing Units

Unit Type of Package 1	PCE	
Package 1 Height	1.97 in (5 cm)	
Package 1 width	3.62 in (9.2 cm)	

Package 1 Length	4.41 in (11.2 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Weight	19.86 lb(US) (9.007 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Weight	341.14 lb(US) (154.74 kg)
Package 3 Height	31.50 in (80 cm)
Package 3 width	31.50 in (80 cm)
Package 3 Length	23.62 in (60 cm)

# 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
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
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.
PVC free	Yes

#### Contractual warranty

Ochtraditian Warranty	
Warranty	18 months