Product data sheet
Characteristics

LC1D093BD
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 9 A - 24 V DC coil

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-1 AC-4 AC-3
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	9 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit 25 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit
Motor power kW	2.2 KW 220...230 V AC 50/60 Hz AC-3) 4 KW 380...400 V AC 50/60 Hz AC-3) 4 KW 415...440 V AC 50/60 Hz AC-3) 5.5 KW 500 V AC 50/60 Hz AC-3) 5.5 KW 660...690 V AC 50/60 Hz AC-3) 2.2 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	1 Hp 230/240 V AC 50/60 Hz 1 phase 2 Hp 200/208 V AC 50/60 Hz 3 phase 2 Hp 230/240 V AC 50/60 Hz 3 phase 5 Hp 460/480 V AC 50/60 Hz 3 phase 7.5 Hp 575/600 V AC 50/60 Hz 3 phase 0.33 hp 115 V AC 50/60 Hz 1 phase
Control circuit type	DC standard
[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 140 °F (60 °C) signalling circuit 16 A 140 °F (60 °C) power circuit
Irms rated making capacity	250 A 440 V power circuit IEC 60947 140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1
Rated breaking capacity	250 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	105 A 104 °F (40 °C) - 10 s power circuit 210 A 104 °F (40 °C) - 1 s power circuit 30 A 104 °F (40 °C) - 10 min power circuit 61 A 104 °F (40 °C) - 1 min 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 25 A gG <= 690 V type 1 power circuit 20 A gG <= 690 V type 2 power circuit
Average impedance	2.5 mOhm - Ith 16 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 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
Electrical durability	0.6 Mcycles 25 A AC-1 <= 440 V 2 Mcycles 9 A AC-3 <= 440 V
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3
Safety cover	With

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	CCC GL BV LROS (Lloyds register of shipping) CSA RINA DNV UL GOST
Connections - terminals	Power circuit spring terminals 1 0.00 in² (2.5 mm²)flexible without cable end Power circuit spring terminals 2 0.00 in² (2.5 mm²)flexible without cable end Control circuit spring terminals 1 0.00 in² (2.5 mm²)flexible without cable end Control circuit spring terminals 2 0.00 in² (2.5 mm²)flexible without cable end
Operating time	53.55...72.45 ms closing 16...24 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	30 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	Drop-out 0.1...0.25 Uc DC 140 °F (60 °C)) Operational 0.7...1.25 Uc DC 140 °F (60 °C))
Time constant	28 ms
Inrush power in W	5.4 W 68 °F (20 °C))
Hold-in power consumption in W	5.4 W 68 °F (20 °C)
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
Protective treatment	TH IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	23…140 °F (-5…60 °C)
Ambient air temperature for storage	-76…176 °F (-60…80 °C)
Permissible ambient air temperature around the device	-40…158 °F (-40…70 °C) at Uc
Operating altitude	9842.52 ft (3000 m) without
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 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	3.15 in (80 mm)
Width	1.77 in (45 mm)
Depth	3.74 in (95 mm)
Net weight	1.06 lb(US) (0.48 kg)

Ordering and shipping details

Category	22355 - CTR,TESYS D,OPEN,9-38A DC
Discount Schedule	I12
GTIN	00785901197614
Package weight(Lbs)	0.55 kg (1.21 lb(US))
Returnability	Yes
Country of origin	ID

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
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.

Contractual warranty

Warranty	18 months