

# Product Datasheet

## Characteristic

# LC1D65ABBE

TeSys D contactor 3P 65A AC-3 up to 440V coil 24V DC EverLink



## Main

range	TeSys
product name	TeSys D Green
product or component type	Contactor
device short name	LC1D
contactor application	Motor control Resistive load
utilisation category	AC-3 AC-1
poles description	3P
pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz
[Ie] rated operational current	140 °F (60 °C) 80 A AC-1 <= 440 V Power circuit 140 °F (60 °C) 65 A AC-3 <= 440 V Power circuit
motor power kW	18.5 kW 220...230 V AC 50 Hz AC-3) 30 kW 380...400 V AC 50 Hz AC-3) AC-3 50 Hz 37 kW AC 415 V AC-3 50 Hz 37 kW AC 440 V 37 kW 500 V AC 50 Hz AC-3) 37 kW 660...690 V AC 50 Hz AC-3)
Maximum Horse Power Rating	5 hp 115 V AC 60 Hz 1 phase 10 hp 230/240 V AC 60 Hz 1 phase 20 hp 200/208 V AC 60 Hz 3 phase 20 hp 230/240 V AC 60 Hz 3 phase 40 hp 460/480 V AC 60 Hz 3 phase 50 hp 575/600 V AC 60 Hz 3 phase
[Uc] control circuit voltage	24 V DC
coil type	DC low consumption
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	80 A 140 °F (60 °C) power circuit 10 A 140 °F (60 °C) signalling circuit
Irms rated making capacity	1000 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	1000 A 440 V power circuit IEC 60947

[Icw] rated short-time withstand current	104 °F (40 °C) 110 A Power circuit 10 min 104 °F (40 °C) 260 A Power circuit 1 min 104 °F (40 °C) 520 A Power circuit 10 s 104 °F (40 °C) 900 A Power circuit 1 s 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
associated fuse rating	GG 125 A Type 1 <= 690 V Power circuit 125 A gG <= 690 V type 2 power circuit 10 A gG signalling circuit IEC 60947-5-1
average impedance	50 Hz 1.5 mOhm 80 A Power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1
electrical durability	1.8 Mcycles AC-3 57 A <= 440 V 0.5 Mcycles AC-1 80 A <= 440 V
power dissipation per pole	9.6 W AC-1 6.3 W AC-3
protective cover	With
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
product certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping)
connections - terminals	Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible without cable end Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible with cable end Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )solid Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible without cable end Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible with cable end Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )solid
tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm)
operating time	Closing 55...65 ms 20...120 ms opening >= 17221) 20...80 ms opening >= 18011)
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	6 Mcycles
maximum operating rate	3600 cyc/h 140 °F (60 °C)

## Complementary

coil technology	Built-in bidirectional peak limiting
control circuit voltage limits	-40...158 °F (-40...70 °C) ≤ 0.1 U <sub>c</sub> DC Drop-out -40...140 °F (-40...60 °C) 0.8...1.2 U <sub>c</sub> DC Operational 140...158 °F (60...70 °C) 1...1.2 U <sub>c</sub> DC Operational
inrush power in W	68 °F (20 °C) 11 W
hold-in power consumption in W	68 °F (20 °C) 0.5 W
heat dissipation	0.5 W
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
compatibility code	LC1D

## 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	-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 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	4.80 in (122 mm)
width	2.17 in (55 mm)
depth	4.72 in (120 mm)
Net Weight	2.21 lb(US) (1.002 kg)
color	Gray SE GREY 6) Green SE GREEN 2)

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	Free of Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	Product out of China RoHS scope. Substance declaration for your information.
Environmental Disclosure	ENVPEP1607010EN
Circularity Profile	ENVEOLI1607010EN
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