Product data sheet
Characteristics

LC1D115A6BNE
Contactor, Tesys Deca Advanced, 3P(3NO), AC-3/AC-3e, <=440V, 115A, 24-60V AC/DC coil,lugs-ring or bars



Main

Range	TeSys Deca
Range of product	TeSys Deca Advanced
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-3e AC-1 AC-4 DC-1 DC-3 DC-5
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 16.67...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	115 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 115 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	24...60 V AC 50/60 Hz 24...60 V DC

Complementary

Motor power kW	30 KW at 230 V AC 50/60 Hz (AC-3) 55 KW at 400 V AC 50/60 Hz (AC-3) 59 KW at 415 V AC 50/60 Hz (AC-3) 75 KW at 440 V AC 50/60 Hz (AC-3) 75 KW at 500 V AC 50/60 Hz (AC-3) 80 KW at 690 V AC 50/60 Hz (AC-3) 65 KW at 1000 V AC 50/60 Hz (AC-3) 30 KW at 230 V AC 50/60 Hz (AC-3e) 55 KW at 400 V AC 50/60 Hz (AC-3e) 59 KW at 415 V AC 50/60 Hz (AC-3e) 75 KW at 440 V AC 50/60 Hz (AC-3e) 75 KW at 500 V AC 50/60 Hz (AC-3e) 80 KW at 690 V AC 50/60 Hz (AC-3e) 65 KW at 1000 V AC 50/60 Hz (AC-3e) 30 KW at 230 V AC 50/60 Hz (AC-4) 55 KW at 400 V AC 50/60 Hz (AC-4) 55 KW at 440 V AC 50/60 Hz (AC-4) 63 KW at 500 V AC 50/60 Hz (AC-4) 65 KW at 690 V AC 50/60 Hz (AC-4) 50 KW at 1000 V AC 50/60 Hz (AC-4)
Motor power hp	30 Hp at 200/208 V 60 Hz 40 Hp at 230/240 V 60 Hz 75 Hp at 460/480 V 60 Hz 100 Hp at 575/600 V 60 Hz
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	200 A (at 60 °C) for power circuit
Irms rated making capacity	1560 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	350 A 40 °C - 10 min for power circuit 600 A 40 °C - 1 min for power circuit 1280 A 40 °C - 10 s for power circuit 1800 A 40 °C - 1 s for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	125 A aM at <= 440 V for power circuit 100 A aM at <= 690 V for power circuit 200 A gG at <= 690 V for power circuit 10 A gG for signalling circuit 2 A gG for control circuit

Average impedance	0.45 MOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	6 W AC-3 6 W AC-3e 22 W AC-1
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	8 KV conforming to IEC 60947
Safety reliability level	B10d = 684932 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 10000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	8 Mcycles
Electrical durability	1 Mcycles 115 A AC-3 at Ue <= 440 V 1 Mcycles 115 A AC-3e at Ue <= 440 V 0.5 Mcycles 200 A AC-1 at Ue <= 440 V
Control circuit type	AC at 50/60 Hz DC
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.8 Uc Min...1.1 Uc Max (-40…60 °C):operational AC/DC 0.1 Uc Max (-40…60 °C):drop-out AC/DC
Inrush power in VA	170 VA (at 20 °C)
Inrush power in W	136 W (at 20 °C)
Hold-in power consumption in VA	7.5 VA (at 20 °C)
Hold-in power consumption in W	5.1 W at 20 °C
Heat dissipation	2.2 W at 20 °C
Operating time	10...80 ms opening 20...90 ms closing
Maximum operating rate	2400 Cyc/H at 60 °C 3600 Cyc/H at Uc at 20 ºC
Connections - terminals	Power circuit: lugs-ring terminals - external diameter: 25 mm Power circuit: bars 1 - busbar cross section: 5 x 25 mm Power circuit: bars 2 - busbar cross section: 5 x 25 mm Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end
Tightening torque	Power circuit: 12 N.m - on bars hexagonal screw head 13 mm M8 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 Control circuit: 1.7 N.m - on screw clamp terminals - 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
Signalling circuit frequency	16.67...400 Hz
Minimum switching voltage	17 V for signalling circuit
Minimum switching current	5 MA for signalling circuit
Insulation resistance	> 10 MOhm 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
Mounting support	Plate

Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 UL 60947-5-1 CSA C22.2 No 60947-4-1 CSA C22.2 No 60947-5-1 JIS C8201-4-1 JIS C8201-5-1 GB/T 14048.4 GB/T 14048.5
Product certifications	CB Scheme[RETURN]CCC[RETURN]cULus[RETURN]CE[RETURN]UKCA[RETURN]EU-RO-MR
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	None conforming to IEC 60068-2-30
Climatic withstand	Conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40…60 °C operation 60…70 °C with derating -60…80 °C storage
Operating altitude	0...3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-11
Mechanical robustness	Vibrations contactor open (2 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Vibrations contactor closed (4 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Shocks contactor open (10 Gn for 11 ms) conforming to IEC 60068-2-27 Shocks contactor closed (15 Gn for 11 ms) conforming to IEC 60068-2-27
Height	152 Mm
Width	99 Mm
Depth	155 Mm
Net weight	2.2 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	18.9 Cm
Package 1 Width	13.2 Cm
Package 1 Length	18.2 Cm
Package 1 Weight	2.39 Kg
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	30 Cm
Package 2 Width	30 Cm
Package 2 Length	40 Cm
Package 2 Weight	10.0947 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	32
Package 3 Height	73.5 Cm
Package 3 Width	60 Cm
Package 3 Length	80 Cm
Package 3 Weight	90.7576 Kg

Offer Sustainability

Recyclability potential, in %	78
Total lifecycle Carbon footprint	306 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	23.625762873530803
Carbon footprint of the manufacturing phase [A1 to A3]	24 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.3648456602261538
Carbon footprint of the distribution phase [A4]	0.4 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.26500121783967584
Carbon footprint of the installation phase [A5]	0.3 kg CO2 eq.

Carbon footprint of the use phase [B2, B3, B4, B6]	276.46338129298675
Carbon footprint of the use phase [B2, B3, B4, B6]	276 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	4.979688988919771
Carbon footprint of the end-of-life phase [C1 to C4]	5 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	306
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	608af421-265e-4dfd-b0b3-1192c9364536
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Styrene, which is known to the
Halogen-free status	Halogen free plastic parts product
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised