Product data sheet
Characteristics

LC1D115M5
Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 115A, 220V AC 50Hz coil, screw clamp terminals



⚠ End of Commercialisation

Commercial status
End of Commercialisation : NOV 01, 2020

Main

Range	TeSys
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
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 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
[Uc] control circuit voltage	220 V AC 50 Hz

Complementary

Motor power kW	30 KW at 220/230 V AC 50/60 Hz (AC-3) 55 KW at 380/400 V AC 50/60 Hz (AC-3) 59 KW at 415/440 V AC 50/60 Hz (AC-3) 75 KW at 500 V AC 50/60 Hz (AC-3) 80 KW at 660/690 V AC 50/60 Hz (AC-3) 65 KW at 1000 V AC 50/60 Hz (AC-3) 30 KW at 220/230 V AC 50/60 Hz (AC-3e) 55 KW at 380/400 V AC 50/60 Hz (AC-3e) 59 KW at 415/440 V AC 50/60 Hz (AC-3e) 75 KW at 500 V AC 50/60 Hz (AC-3e) 80 KW at 660/690 V AC 50/60 Hz (AC-3e) 65 KW at 1000 V AC 50/60 Hz (AC-3e) 18.5 KW at 400 V AC 50/60 Hz (AC-4)
Motor power hp	30 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 40 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 75 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 100 Hp at 575/600 V AC 50/60 Hz for 3 phases motors
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	1260 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	250 A 40 °C - 10 min for power circuit 550 A 40 °C - 1 min for power circuit 950 A 40 °C - 10 s for power circuit 1100 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	250 A gG at <= 690 V coordination type 1 for power circuit 200 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit
Average impedance	0.6 MOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	24 W AC-1 7.9 W AC-3 7.9 W AC-3e
[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	0.8 Mcycles 200 A AC-1 at Ue <= 440 V 0.95 Mcycles 115 A AC-3 at Ue <= 440 V 0.95 Mcycles 115 A AC-3e at Ue <= 440 V
Control circuit type	AC at 50 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc (-40…70 °C):drop-out AC 50 Hz 0.85...1.1 Uc (-40…55 °C):operational AC 50 Hz 1...1.1 Uc (55…70 °C):operational AC 50 Hz
Inrush power in VA	300 VA 50 Hz cos phi 0.8 (at 20 °C)
Hold-in power consumption in VA	22 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	3…8 W at 50 Hz
Operating time	6...20 ms opening 20...50 ms closing
Maximum operating rate	2400 Cyc/H at 60 °C
Connections - terminals	Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1…2.5 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: solid without cable end Power circuit: connector 1 10…120 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 10…50 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 10…120 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 10…50 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 10…120 mm² - cable stiffness: solid without cable end Power circuit: connector 2 10…50 mm² - cable stiffness: solid without cable end
Tightening torque	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 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	25...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	Rail Plate

Environment

Standards	CSA C22.2 No 14 EN 60947-4-1 IEC 60947-4-1 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ UL 60947-4-1 CSA C22.2 No 60947-4-1 JIS C8201-4-1
Product certifications	UL[RETURN]CSA[RETURN]CCC[RETURN]UKCA[RETURN]CE[RETURN]EAC[RETURN]Mari
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH 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 60…70 °C with derating
Operating altitude	0...3000 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, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor closed (15 Gn for 11 ms) Shocks contactor open (6 Gn for 11 ms)
Height	158 Mm
Width	120 Mm
Depth	136 Mm
Net weight	2.5 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	17.500 Cm
Package 1 Width	19.000 Cm
Package 1 Length	21.000 Cm
Package 1 Weight	2.420 Kg
Unit Type of Package 2	P06
Number of Units in Package 2	27
Package 2 Height	74.000 Cm
Package 2 Width	60.000 Cm
Package 2 Length	80.000 Cm
Package 2 Weight	78.583 Kg

Offer Sustainability

Recyclability potential, in %	54
Total lifecycle Carbon footprint	109 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	22.22881266064238
Carbon footprint of the manufacturing phase [A1 to A3]	22 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.7508929239734572
Carbon footprint of the distribution phase [A4]	0.8 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2654427709841767
Carbon footprint of the installation phase [A5]	0.3 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	81.50132194244603
Carbon footprint of the use phase [B2, B3, B4, B6]	82 kg CO2 eq.
Mercury free	Yes

Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	4.425806016866926
Carbon footprint of the end-of-life phase [C1 to C4]	4 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	109
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	A530c666-91dd-4119-8d61-f1c22a361ecb
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
PVC free	Yes
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 and

Contractual warranty

Warranty (in months)	18

Product Life Status : End of commerc. - Block