# **Product datasheet**

Specification





Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 115A, 440V, AC 50/60Hz coil, screw clamp terminals

LC1D115R7

### Main

Range	TeSys	
Range of product	TeSys Deca	
Product or component type	Contactor	
Device short name	LC1D	
contactor application	Motor control Resistive load	
Utilisation category	AC-1 AC-3 AC-4 AC-3e	
poles description	3P	
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 25400 Hz Power circuit: <= 300 V DC	
[le] 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	440 V AC 50/60 Hz	

### **Complementary**

Motor power kW	30 kW at 220230 V AC 50/60 Hz (AC-3)	
	55 kW at 380400 V AC 50/60 Hz (AC-3)	
	59 kW at 415440 V AC 50/60 Hz (AC-3)	
	75 kW at 500 V AC 50/60 Hz (AC-3)	
	80 kW at 660690 V AC 50/60 Hz (AC-3)	
	65 kW at 1000 V AC 50/60 Hz (AC-3)	
	18.5 kW at 400 V AC 50/60 Hz (AC-4)	
	30 kW at 220230 V AC 50/60 Hz (AC-3e)	
	55 kW at 380400 V AC 50/60 Hz (AC-3e)	
	59 kW at 415440 V AC 50/60 Hz (AC-3e)	
	75 kW at 500 V AC 50/60 Hz (AC-3e)	
	80 kW at 660690 V AC 50/60 Hz (AC-3e)	
	65 kW at 1000 V AC 50/60 Hz (AC-3e)	
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	· <del></del>
	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	250 A 40 °C - 10 min for power circuit
current	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 aC at <= 600 V coordination type 1 for neuron sircuit
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
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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 50/60 Hz
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3 0.5 He (.40 70 °C):drop-out AC 50/60 Hz
Control of our voitage lillies	0.30.5 Uc (-4070 °C):drop-out AC 50/60 Hz
	0.81.15 Uc (-4055 °C):operational AC 50/60 Hz
	11.15 Uc (5570 °C):operational AC 50/60 Hz
Inrush power in VA	280350 VA 60 Hz cos phi 0.8 (at 20 °C)
•	280350 VA 50 Hz cos phi 0.8 (at 20 °C)
Hold-in power consumption in VA	218 VA 60 Hz cos phi 0.3 (at 20 °C)
TOTA-III POWER CONSUMPRIOR III VA	218 VA 60 Hz cos phi 0.3 (at 20 °C) 218 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	38 W at 50/60 Hz
Operating time	620 ms opening
. •	2050 ms closing
Maximum aparating rate	0.400
Maximum operating rate	2400 cyc/h 60 °C
Maximum operating rate	2400 cyc/h at 60 °C

Connections - terminals	Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 1 12.5 mm² - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 1 12.5 mm² - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 1 12.5 mm² - cable stiffness: solid without cable end
	Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: solid without cable end
	Power circuit: connector 1 10120 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 1050 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 10120 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 1050 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 10120 mm² - cable stiffness: solid without cable end Power circuit: connector 2 1050 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	25400 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
	on one ground state of the contact

### **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 CSA CCC UKCA CE EAC Marine
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	-4060 °C 6070 °C with derating
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 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	19.000 cm
Package 1 Width	17.000 cm
Package 1 Length	21.000 cm
Package 1 Weight	2.482 kg
Unit Type of Package 2	S06
Number of Units in Package 2	27
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	79.447 kg

## **Contractual warranty**

Warranty 18 months



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Sustainable Packaging Transparency RoHS/REACh

#### Resource performance



Sustainable Packaging

### Well-being performance

✓ Me

Mercury Free



Rohs Exemption Information

Yes



Pvc Free

#### **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant with Exemptions
China Rohs Regulation	China RoHS declaration  Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information