# **Product datasheet**

Specification





Reversing Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V 80A, 48V AC 50/60Hz coil, screw clamp terminals

LC2D80E7

### Main

Wall					
Range	TeSys				
Product Name	TeSys Deca				
Product Or Component Type	Reversing contactor				
Device Short Name	LC2D				
Contactor Application	Resistive load Motor control				
Utilisation Category	AC-1 AC-3				
	AC-3e AC-4				
Device Presentation	Preassembled with reversing power busbar				
Poles Description	3P				
Power Pole Contact Composition	3 NO				
[Ue] Rated Operational Voltage Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC					
[le] Rated Operational Current	Current 125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 55 A (at <60 °C) at <= 400 V AC AC-4 for power circuit				
Motor Power Kw	22 kW at 220230 V AC 50 Hz 37 kW at 380400 V AC 50 Hz 45 kW at 415440 V AC 50 Hz 55 kW at 500 V AC 50 Hz 45 kW at 660690 V AC 50 Hz				
Motor Power Hp (UI / Csa)	20 hp at 200/208 V AC 60 Hz for 3 phases motors 7.5 hp at 115 V AC 60 Hz for 1 phase motors 15 hp at 230/240 V AC 60 Hz for 1 phase motors 25 hp at 230/240 V AC 60 Hz for 3 phases motors 60 hp at 460/480 V AC 60 Hz for 3 phases motors 60 hp at 575/600 V AC 60 Hz for 3 phases motors				
Control Circuit Type	AC at 50/60 Hz				
[Uc] Control Circuit Voltage	48 V AC 50/60 Hz				
Auxiliary Contact Composition	1 NO + 1 NC				
[Uimp] Rated Impulse Withstand Voltage	8 kV conforming to IEC 60947				
Overvoltage Category	Ш				
[Ith] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit 125 A (at 60 °C) for power circuit				
Irms Rated Making Capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1100 A at 440 V for power circuit conforming to IEC 60947				
Rated Breaking Capacity	1100 A at 440 V for power circuit conforming to IEC 60947				

[Icw] Rated Short-Time Withstand Current	135 A 40 °C - 10 min for power circuit 320 A 40 °C - 1 min for power circuit 640 A 40 °C - 10 s for power circuit 990 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	10 A gG for signalling circuit conforming to IEC 60947-5-1 200 A gG at <= 690 V coordination type 1 for power circuit 160 A gG at <= 690 V coordination type 2 for power circuit				
Average Impedance	0.8 mOhm - Ith 125 A 50 Hz for power circuit				
[Ui] Rated Insulation Voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1				
Electrical Durability	0.8 Mcycles 125 A AC-1 at Ue <= 440 V 1.5 Mcycles 80 A AC-3 at Ue <= 440 V 1.5 Mcycles 80 A AC-3e at Ue <= 440 V				
Power Dissipation Per Pole	12.5 W AC-1 5.1 W AC-3 5.1 W AC-3e				
Front Cover	With				
Interlocking Type	Mechanical				
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	UL CSA RINA GOST CCC DNV LROS (Lloyds register of shipping) GL BV UKCA				
Connections - Terminals	Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²solid Control circuit: screw clamp terminals 2 cable(s) 14 mm²solid Control circuit: screw clamp terminals 1 cable(s) 12.5 mm²flexible with cable end Power circuit: connector 1 cable(s) 450 mm²flexible without cable end Power circuit: connector 2 cable(s) 425 mm²flexible with cable end Power circuit: connector 1 cable(s) 450 mm²flexible with cable end Power circuit: connector 2 cable(s) 416 mm²flexible with cable end Power circuit: connector 1 cable(s) 450 mm²solid Power circuit: connector 2 cable(s) 425 mm²solid				
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 - with screwdriver flat Ø 6 to Ø 8 mm 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				
Operating Time	2035 ms closing 620 ms opening				
Safety Reliability Level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1				

Mechanical Durability	4 Mcycles
Maximum Operating Rate	3600 cvc/h 60 °C

## Complementary

Coil Technology	Without built-in suppressor module				
Control Circuit Voltage Limits	0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4055 °C):operational AC 50 Hz 0.851.1 Uc (-4055 °C):operational AC 60 Hz 11.1 Uc (5570 °C):operational AC 50/60 Hz				
Inrush Power In Va	245 VA 60 Hz cos phi 0.75 (at 20 °C) 245 VA 50 Hz cos phi 0.75 (at 20 °C)				
Hold-In Power Consumption In Va	26 VA 60 Hz cos phi 0.3 (at 20 °C) 26 VA 50 Hz cos phi 0.3 (at 20 °C)				
Heat Dissipation	610 W at 50/60 Hz				
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 Current	5 mA for signalling circuit				
Minimum Switching Voltage	17 V 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				
Insulation Resistance	> 10 MOhm for signalling circuit				

### **Environment**

Ip Degree Of Protection	IP20 front face conforming to IEC 60529				
Climatic Withstand	conforming to IACS E10				
Protective Treatment	TH conforming to IEC 60068-2-30				
Pollution Degree	3				
Ambient Air Temperature For Operation	-4060 °C 6070 °C with derating				
Ambient Air Temperature For Storage	-6080 °C				
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 Shocks contactor open: 8 Gn for 11 ms Vibrations contactor closed: 3 Gn, 5300 Hz Shocks contactor closed: 10 Gn for 11 ms				
Height 127 mm					
Width	182 mm				
Depth	158 mm				
Net Weight	3.2 kg				

# **Packing Units**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	19.5 cm

Package 1 Width	19.5 cm
Package 1 Length	26.0 cm
Package 1 Weight	3.724 kg
Unit Type Of Package 2	S03
Number Of Units In Package 2	2
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.958 kg

# **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

### Well-being performance

<b>⊘</b>	Reach Free Of Svhc
<b>⊘</b>	Toxic Heavy Metal Free
<b>⊘</b>	Mercury Free
<b>⊘</b>	Rohs Exemption Information Yes
<b>⊘</b>	Pvc Free

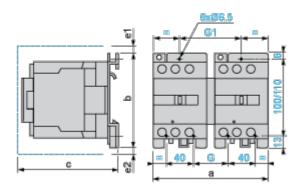
#### **Certifications & Standards**

Reach Regulation	REACh Declaration				
Eu Rohs Directive	Compliant EU RoHS Declaration				
China Rohs Regulation	China RoHS declaration  Pro-active China RoHS declaration (out of China RoHS legal scope)				
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	No need of specific recycling operations				

### LC2D80E7

### **Dimensions Drawings**

### **Dimensions**



LC2 or 2 x LC1	а	b	С	e1	e2	G	G1
D80 and D95 (AC)	182	127	158	13	_	57	96
c, e1 and e2: including cabling.							

Connections and Schema

Wiring

