## Product data sheet Characteristics

## LP1D40008FW

TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 60 A - 110 V DC coil



Main	
Range of product	TeSys D
Product or component type	Contactor
Device short name	LP1D
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	2 NO + 2 NC
[Ue] rated operational voltage	<= 690 V AC 25400 Hz for power circuit <= 690 V DC for power circuit
[le] rated operational current	60 A (<= 60 $^{\circ}$ C) at <= 440 V AC AC-1 for power circuit
Control circuit type	DC wide range
Control circuit voltage	110 V DC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	60 A at <= 60 °C for power circuit
Irms rated making capacity	800 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	800 A at 440 V for power circuit conforming to IEC 60947
[lcw] rated short-time withstand current	72 A <= 40 °C 10 min power circuit 165 A <= 40 °C 1 min power circuit 320 A <= 40 °C 10 s power circuit 720 A <= 40 °C 1 s power circuit
Associated fuse rating	80 A gG at <= 690 V coordination type 1 for power circuit 80 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm at 50 Hz - Ith 60 A for power circuit
[Ui] rated insulation voltage	690 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit certifications CSA 600 V for power circuit certifications UL
Power dissipation per pole	5.4 W AC-1
Safety cover	Without
Mounting support	Plate Rail

EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 n°14

BV CCC CSA DNV GL GOST RINA UL LROS

Standards

Product certifications

Connections - terminals	Power circuit: screw clamp terminals 1 cable(s)
Connections - terminals	135 mm <sup>2</sup> - cable stiffness: flexible - without cable end
	Power circuit: screw clamp terminals 2 cable(s) 125 mm² - cable stiffness: flexible - without cable
	end
	Power circuit: screw clamp terminals 1 cable(s) 135 mm² - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 2 cable(s) 125 mm² - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s)
	135 mm² - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 2 cable(s) 125 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: flexible - without cable end
	Control circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: flexible - without cable end
	Control circuit: screw clamp terminals 1 cable(s)  14 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s)  12.5 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s)  14 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s)  14 mm² - cable stiffness: solid - without cable end
Tightening torque	Power circuit: 5 N.m - on screw clamp terminals - cable <= 25 mm² hexagonal 4 mm  Power circuit: 8 N.m - on screw clamp terminals - cable 2535 mm² hexagonal 4 mm  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
Operating time	419 ms opening 1226 ms closing
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 (millions)	10 Mcycles
Operating rate	3600 cyc/h at <= 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor	
Control circuit voltage limits	0.10.3 Uc at 55 °C drop-out	
	0.751.2 Uc at 55 °C operational	
Time constant	75 ms	
Inrush power in W	22 W at 20 °C	
Hold-in power consumption in W	22 W at 20 °C	

## Environment

IP degree of protection	IP2x front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-560 °C
Ambient air temperature for storage	-6080 °C
Permissible ambient air temperature around the device	-4070 °C at Uc
Operating altitude	3000 m without derating in temperature
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 open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms



Height	127 mm
Width	85 mm
Depth	125 mm
Product weight	2.21 kg