



Main

Range	TeSys
Product name	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	Power circuit: ≤ 690 V AC 25...400 Hz Power circuit: ≤ 300 V DC
[Ie] rated operational current	80 A (at <60 °C) at ≤ 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	110 V DC
Coil type	DC standard
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	80 A (at 60 °C) for power circuit
Irms rated making capacity	1000 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	110 A 40 °C - 10 min for power circuit 260 A 40 °C - 1 min for power circuit 520 A 40 °C - 10 s for power circuit 900 A 40 °C - 1 s for power circuit
Associated fuse rating	125 A gG at ≤ 690 V coordination type 1 for power circuit 125 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified

Electrical durability	1.4 Mcycles 80 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	9.6 W AC-1
Front cover	Without
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	BV CCC CSA DNV EAC GL LROS (Lloyds register of shipping) UL
Connections - terminals	Power circuit: screw clamp terminals 1 cable(s) 1...35 mm ² flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 1...25 mm ² flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 1...35 mm ² flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1...25 mm ² flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1...35 mm ² solid without cable end Power circuit: screw clamp terminals 2 cable(s) 1...25 mm ² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² solid without cable end
Tightening torque	Power circuit: 8 N.m - on screw clamp terminals - cable 25...35 mm ² hexagonal screw head 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 Power circuit: 5 N.m - on screw clamp terminals - cable 1...25 mm ² hexagonal screw head 4 mm
Operating time	4...19 ms opening 12...26 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	6 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.3 U_c (55 °C):drop-out DC 0.85...1.1 U_c (55 °C):operational DC
Time constant	75 ms
Inrush power in W	22 W at 20 °C
Hold-in power consumption in W	22 W at 20 °C
Contact compatibility	M3
Compatibility code	LP1D

Environment

IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for storage	-60...80 °C
Operating altitude	3000 m without derating
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 open: 10 Gn for 11 ms
Shocks contactor closed: 15 Gn for 11 ms

Height	127 mm
Width	85 mm
Depth	182 mm
Net weight	2.22 kg

Packing Units

Package 1 Weight	2.255 kg
Package 1 Height	1.950 dm
Package 1 width	1.000 dm
Package 1 Length	1.400 dm

Offer Sustainability

Sustainable offer status	Green Premium product
REACH free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

Contractual warranty

Warranty	18 months
----------	-----------