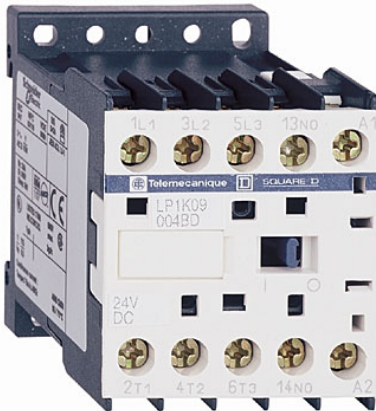


LP1K12004BD

contactor TeSys LP1-K - 4 poles - AC-1 440V
20 A - coil 24 V DC



Main

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|--------------------------------|--|
| Range of product | TeSys K |
| Product or component type | Contacteur |
| Device short name | LP1K |
| Contacteur application | Resistive load |
| Utilisation category | AC-1 |
| Control circuit type | DC |
| Coil type | Standard |
| Poles description | 4P |
| Pole contact composition | 4 NO |
| [Ie] rated operational current | 20 A (<= 50 °C) AC AC-1 for power circuit |
| Control circuit voltage | 24 V DC |
| Connections - terminals | Screw clamp terminal power circuit: 1 cable 0.34...2.5 mm ² - cable stiffness: flexible - with cable end Screw clamp terminal power circuit: 1 cable 0.75...4 mm ² - cable stiffness: flexible - without cable end Screw clamp terminal power circuit: 1 cable 1.5...4 mm ² - cable stiffness: solid - without cable end Screw clamp terminal power circuit: 2 cable 0.34...2.5 mm ² - cable stiffness: flexible - with cable end Screw clamp terminal power circuit: 2 cable 0.75...4 mm ² - cable stiffness: flexible - without cable end Screw clamp terminal power circuit: 2 cable 1.5...4 mm ² - cable stiffness: solid - without cable end |

Complementary

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|---|---|
| Coil technology | Without built-in bidirectional peak limiting diode suppressor |
| Control circuit voltage limits | >= 0.10 U _c at <= 50 °C drop-out 0.8...1.15 U _c at <= 50 °C operational |
| [Ui] rated insulation voltage | 600 V conforming to CSA C22-2 No 14 for control circuit 600 V certifications UL 508 conforming to CSA C22-2 No 14 for power circuit 690 V conforming to BS 5424 for control circuit 690 V conforming to IEC 60947 for control circuit 690 V conforming to BS 5424 for power circuit 690 V conforming to IEC 60947 for power circuit 690 V conforming to NF C 20-040 for power circuit 750 V conforming to VDE 0110 group C for control circuit 750 V conforming to VDE 0110 group C for power circuit |
| [Uimp] rated impulse withstand voltage | 8 kV |
| Mounting support | Plate Rail |
| Flame retardance | Class C2 conforming to NF F 16-101 Class C2 conforming to NF F 16-102 V1 conforming to UL 94 |
| Tightening torque | 0.8...1.3 N.m power circuit: - on screw clamp terminal - with screwdriver flat Ø 6 mm 0.8...1.3 N.m power circuit: - on screw clamp terminal - with screwdriver Philips No 2 |
| [Ue] rated operational voltage | <= 690 V AC <= 400 Hz for power circuit |
| [Ith] conventional free air thermal current | 10 A at <= 50 °C for control circuit 20 A at <= 50 °C for power circuit |
| I _{rms} rated making capacity | 110 A at 690 V AC for control circuit conforming to IEC 60947 144 A at 690 V AC for power circuit conforming to IEC 60947 144 A at 690 V AC for power circuit conforming to NF C 63-110 |

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|--------------------------------|--|
| Rated breaking capacity | 110 A at 440 V for power circuit conforming to IEC 60947 110 A at 440 V for power circuit conforming to NF C 63-110 70 A at 660...690 V for power circuit conforming to IEC 60947 70 A at 660...690 V for power circuit conforming to NF C 63-110 80 A at 500 V for power circuit conforming to IEC 60947 80 A at 500 V for power circuit conforming to NF C 63-110 |
| Permissible short-time rating | 100 A ($\leq 50\text{ }^{\circ}\text{C}$) - short time current duration: 10 s - for power circuit 105 A ($\leq 50\text{ }^{\circ}\text{C}$) - short time current duration: 5 s - for power circuit 115 A ($\leq 50\text{ }^{\circ}\text{C}$) - short time current duration: 1 s - for power circuit 25 A ($\leq 50\text{ }^{\circ}\text{C}$) - short time current duration: ≥ 15 min - for power circuit 50 A ($\leq 50\text{ }^{\circ}\text{C}$) - short time current duration: 3 min - for power circuit 55 A ($\leq 50\text{ }^{\circ}\text{C}$) - short time current duration: 1 min - for power circuit 75 A ($\leq 50\text{ }^{\circ}\text{C}$) - short time current duration: 30 s - for power circuit |
| Associated fuse rating | 10 A gG for control circuit conforming to IEC 60947 10 A gG for control circuit conforming to VDE 0660 25 A gG at ≤ 440 V for power circuit |
| Average impedance | 3 mOhm at 50 Hz - lth 20 A for power circuit |
| Inrush power in W | 3 W at 20 $^{\circ}\text{C}$ |
| Hold-in power consumption in W | 3 W at 20 $^{\circ}\text{C}$ |
| Operating time | 10 ms coil de-energisation and NO opening 15 ms coil de-energisation and NC opening 25...35 ms coil energisation and NC opening 30...40 ms between energisation of coil and closing of NO contact |
| 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 | 10000000 cycles |
| Operating rate | 3600 cyc/h |
| Minimum switching current | 5 mA for control circuit |
| Minimum switching voltage | 17 V for control circuit |
| Insulation resistance | > 10 MOhm for control circuit |
| Rated operational power in W | 120 W at 24 V DC-13 - electrical durability: 1000000 cycles - for control circuit 15 W at 24 V DC-13 - electrical durability: 10000000 cycles - for control circuit 55 W at 24 V DC-13 - electrical durability: 3000000 cycles - for control circuit |
| Height | 58 mm |
| Width | 45 mm |
| Depth | 57 mm |
| Product weight | 0.225 kg |

Environment

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|---------------------------------------|--|
| Standards | BS 5424 IEC 60947 NF C 63-110 VDE 0660 |
| Product certifications | CSA GOST UL |
| IP degree of protection | IP2x conforming to VDE 0106 |
| Protective treatment | TC conforming to IEC 60068 |
| Ambient air temperature for operation | -25...50 $^{\circ}\text{C}$ |
| Ambient air temperature for storage | -50...80 $^{\circ}\text{C}$ |
| Operating altitude | 2000 m without derating in temperature |
| Fire resistance | 850 $^{\circ}\text{C}$ conforming to IEC 60695-2-1 |
| Shock resistance | 10 gn contactor closed 6 gn contactor opened |
| Vibration resistance | 2 gn contactor opened 5...300 Hz 4 gn contactor closed 5...300 Hz |
| Heat dissipation | 3 W for control circuit |