

LP4K1210BW3

TeSys K contactor - 3P(3 NO) - AC-3 - ≤ 440 V 12 A - 24 V DC coil



Main

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| Commercial Status | Commercialised |
| Range of product | TeSys K |
| Product or component type | Contactors |
| Device short name | LP4K |
| Contactors application | Motor control Resistive load |
| Utilisation category | AC-1 AC-3 AC-4 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | ≤ 690 V AC 50/60 Hz for signalling circuit 690 V AC 50/60 Hz for power circuit |
| [Ie] rated operational current | 12 A at ≤ 440 V AC AC-3 for power circuit 16 A (≤ 70 °C) at 690 V AC AC-1 for power circuit 20 A (≤ 50 °C) at ≤ 440 V AC AC-1 for power circuit |
| Motor power kW | 5.5 kW at 440 V AC 50/60 Hz 5.5 kW at 380...415 V AC 50/60 Hz 3 kW at 220...230 V AC 50/60 Hz 4 kW at 660...690 V AC 50/60 Hz 4 kW at 500...600 V AC 50/60 Hz 4 kW at 480 V AC 50/60 Hz |
| Control circuit type | DC low consumption |
| Control circuit voltage | 24 V DC |
| Auxiliary contact composition | 1 NO |
| [Uimp] rated impulse withstand voltage | 8 kV |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 10 A at ≤ 50 °C for signalling circuit 20 A at ≤ 50 °C for power circuit |
| Irms rated making capacity | 144 A AC for power circuit conforming to IEC 60947 144 A AC for power circuit conforming to NF C 63-110 110 A AC for signalling circuit conforming to IEC 60947 |
| Rated breaking capacity | 70 A at 660...690 V conforming to IEC 60947 80 A at 500 V conforming to IEC 60947 110 A at 440 V conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 25 A ≤ 50 °C ≥ 15 s power circuit 50 A ≤ 50 °C 3 min power circuit 55 A ≤ 50 °C 1 min power circuit 75 A ≤ 50 °C 30 s power circuit 100 A ≤ 50 °C 10 s power circuit 105 A ≤ 50 °C 5 s power circuit 115 A ≤ 50 °C 1 s power circuit 110 A 100 ms signalling circuit 90 A 500 ms signalling circuit 80 A 1 s signalling circuit |
| Associated fuse rating | 10 A gG for signalling circuit conforming to VDE 0660 10 A gG for signalling circuit conforming to IEC 60947 25 A aM for power circuit 25 A gG at ≤ 440 V for power circuit |
| Average impedance | 3 mOhm at 50 Hz - Ith 20 A for power circuit |

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| [Ui] rated insulation voltage | 600 V for signalling circuit conforming to CSA C22.2 No 14 600 V for power circuit conforming to CSA C22.2 No 14 600 V for signalling circuit conforming to UL 508 690 V for signalling circuit conforming to IEC 60947-5-1 690 V for signalling circuit conforming to IEC 60947-4-1 690 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit conforming to UL 508 |
| Electrical durability | 1.3 Mcycles 12 A AC-3 at $U_e \leq 440$ V 0.3 Mcycles 20 A AC-1 at $U_e \leq 440$ V |
| Mounting support | Plate Rail |
| Standards | BS 5424 IEC 60947 NF C 63-110 VDE 0660 |
| Product certifications | CSA UL |
| Connections - terminals | Screw clamp terminals 2 cable(s) 0.34...1.5 mm ² - cable stiffness: flexible - with cable end Screw clamp terminals 2 cable(s) 0.75...4 mm ² - cable stiffness: flexible - without cable end Screw clamp terminals 2 cable(s) 1.5...4 mm ² - cable stiffness: solid Screw clamp terminals 1 cable(s) 0.34...2.5 mm ² - cable stiffness: flexible - with cable end Screw clamp terminals 1 cable(s) 0.75...4 mm ² - cable stiffness: flexible - without cable end Screw clamp terminals 1 cable(s) 1.5...4 mm ² - cable stiffness: solid |
| Tightening torque | 1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm 1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2 |
| Operating time | 30...40 ms coil energisation and NO closing 10...20 ms coil de-energisation and NO opening |
| Safety reliability level | B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 |
| Mechanical durability | 30 Mcycles |
| Operating rate | 3600 cyc/h |

Complementary

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| Coil technology | Built-in bidirectional peak limiting diode suppressor |
| Control circuit voltage limits | 0.1...0.7 U_c at ≤ 50 °C drop-out 0.7...1.30 U_c at ≤ 50 °C operational |
| Inrush power in W | 1.8 W at 20 °C |
| Hold-in power consumption in W | 1.8 W at 20 °C |
| Heat dissipation | 1.8 W |
| Auxiliary contacts type | Type instantaneous (1 NO) |
| Minimum switching current | 5 mA for signalling circuit |
| Minimum switching voltage | 17 V for signalling circuit |
| Non overlap distance | 0.5 mm |
| Insulation resistance | > 10 MOhm for signalling circuit |

Environment

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| IP degree of protection | IP2x conforming to VDE 0106 |
| Protective treatment | TC conforming to DIN 50016 TC conforming to IEC 60068 |
| Ambient air temperature for operation | -25...50 °C |
| Ambient air temperature for storage | -50...80 °C |
| Operating altitude | 2000 m without derating in temperature |

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| Flame retardance | Requirement 2 conforming to NF F 16-102 Requirement 2 conforming to NF F 16-101 V1 conforming to UL 94 |
| Mechanical robustness | Shocks contactor closed, on Y axis 10 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on X axis 15 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Y axis 6 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on X axis 10 Gn for 11 ms IEC 60068-2-27 Vibrations contactor opened 2 Gn, 5...300 Hz IEC 60068-2-6 Vibrations contactor closed 4 Gn, 5...300 Hz IEC 60068-2-6 Shocks contactor opened, on Z axis 10 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on Z axis 15 Gn for 11 ms IEC 60068-2-27 |
| Height | 58 mm |
| Width | 45 mm |
| Depth | 57 mm |
| Product weight | 0.235 kg |

RoHS compliance

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| RoHS EUR status | Compliant |
| RoHS EUR conformity date(Y Y W W) | 0825 |

Contractual warranty

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| Period | 18 months |
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