

# LP1K090045JD

TeSys K contactor - 4P(4 NO) - AC-1 - <= 440 V 20 A - 12 V DC coil



## Main

|   |  |
|---|--|
| Range                                       | TeSys  |
| Product name                                | TeSys K  |
| Product or component type                   | Contacteur   |
| Device short name                           | LP1K   |
| Contacteur application                      | Resistive load   |
| Utilisation category                        | AC-1   |
| Poles description                           | 4P   |
| Pole contact composition                    | 4 NO   |
| [Ue] rated operational voltage              | 690 V AC 50/60 Hz for power circuit  |
| [Ie] rated operational current              | 20 A (<= 50 °C) at <= 440 V AC AC-1 for power circuit<br>16 A (<= 70 °C) at 690 V AC AC-1 for power circuit  |
| Control circuit type                        | DC standard  |
| Control circuit voltage                     | 12 V DC  |
| [Uimp] rated impulse withstand voltage      | 8 kV   |
| Overvoltage category                        | III  |
| [Ith] conventional free air thermal current | 20 A at <= 50 °C for power circuit   |
| Irms rated making capacity                  | 110 A AC for power circuit conforming to NF C 63-110<br>110 A AC for power circuit conforming to IEC 60947   |
| Rated breaking capacity                     | 110 A at 415 V conforming to IEC 60947<br>110 A at 440 V conforming to IEC 60947<br>80 A at 500 V conforming to IEC 60947<br>110 A at 220...230 V conforming to IEC 60947<br>110 A at 380...400 V conforming to IEC 60947<br>70 A at 660...690 V conforming to IEC 60947 |
| [Icw] rated short-time withstand current    | 90 A <= 50 °C 1 s power circuit<br>85 A <= 50 °C 5 s power circuit<br>80 A <= 50 °C 10 s power circuit<br>60 A <= 50 °C 30 s power circuit<br>45 A <= 50 °C 1 min power circuit<br>40 A <= 50 °C 3 min power circuit<br>20 A <= 50 °C >= 15 s power circuit              |
| Associated fuse rating                      | 25 A gG at <= 440 V for power circuit<br>25 A aM for power circuit   |
| Average impedance                           | 3 mOhm at 50 Hz - Ith 20 A for power circuit   |
| [Ui] rated insulation voltage               | 690 V for power circuit conforming to IEC 60947-4-1<br>600 V for power circuit conforming to UL 508<br>600 V for power circuit conforming to CSA C22.2 No 14   |
| Electrical durability                       | 0.18 Mcycles 20 A AC-1 at Ue <= 440 V  |
| Mounting support                            | Printed circuit boards   |
| Standards                                   | BS 5424<br>IEC 60947<br>NF C 63-110<br>VDE 0660  |
| Product certifications                      | CSA<br>UL  |
| Connections - terminals                     | Solder pins 1.5 x 0.9 mm   |
| Operating time                              | 10 ms coil de-energisation and NO opening  |

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|                          |  |
|--------------------------|--|
|                          | 30...40 ms coil energisation and NO closing  |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical durability    | 10 Mcycles   |
| Operating rate           | 3600 cyc/h   |

## Complementary

|                                |   |
|--------------------------------|---|
| Control circuit voltage limits | 0.8...1.15 U <sub>c</sub> at ≤ 50 °C operational<br>0.1...0.75 U <sub>c</sub> at ≤ 50 °C drop-out |
| Inrush power in W              | 3 W at 20 °C  |
| Hold-in power consumption in W | 3 W at 20 °C  |
| Heat dissipation               | 3 W   |

## Environment

|                                       |   |
|---------------------------------------|---|
| IP degree of protection               | IP2x conforming to VDE 0106   |
| Protective treatment                  | TC conforming to IEC 60068<br>TC conforming to DIN 50016  |
| Ambient air temperature for operation | -25...50 °C   |
| Ambient air temperature for storage   | -50...80 °C   |
| Operating altitude                    | 2000 m without derating in temperature  |
| Flame retardance                      | V1 conforming to UL 94<br>Requirement 2 conforming to NF F 16-101<br>Requirement 2 conforming to NF F 16-102  |
| Mechanical robustness                 | Shocks contactor closed, on Z axis 15 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor opened, on Z axis 10 Gn for 11 ms IEC 60068-2-27<br>Vibrations contactor closed 4 Gn, 5...300 Hz IEC 60068-2-6<br>Vibrations contactor opened 2 Gn, 5...300 Hz IEC 60068-2-6<br>Shocks contactor opened, on X axis 10 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor opened, on Y axis 6 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed, on X axis 15 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed, on Y axis 10 Gn for 11 ms IEC 60068-2-27 |
| Height                                | 58 mm   |
| Width                                 | 45 mm   |
| Depth                                 | 57 mm   |
| Product weight                        | 0.225 kg  |

## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS                             | Compliant - since 0640 - Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold                     |
| Product environmental profile    | Available   |
| Product end of life instructions | Need no specific recycling operations                                 |