

# Product data sheet

Specifications



## Contactor, TeSys K, 3P, AC-3/ AC-3e, 440V, 12A, 1NO aux, 24V DC coil, screw clamps

LP1K1210BD

### Main

|                                |  |
|--------------------------------|--|
| Range of product               | TeSys K  |
| Range                          | TeSys  |
| Product or component type      | Contactor  |
| Device short name              | LP1K   |
| Contactor application          | Resistive load<br>Motor control  |
| Utilisation category           | AC-3<br>AC-1<br>AC-4<br>AC-3e  |
| Poles description              | 3P   |
| Pole contact composition       | 3 NO   |
| [Ie] rated operational current | 12 A (at <math>\leq 50\text{ }^\circ\text{C}</math>) at <math>\leq 440\text{ V}</math> AC-3 for power circuit<br>10 A (at <math>\leq 60\text{ }^\circ\text{C}</math>) at <math>\leq 440\text{ V}</math> AC-3 for power circuit<br>20 A (at <math>\leq 50\text{ }^\circ\text{C}</math>) at <math>\leq 690\text{ V}</math> AC-1 for power circuit<br>16 A (at <math>\leq 60\text{ }^\circ\text{C}</math>) at <math>\leq 690\text{ V}</math> AC-1 for power circuit<br>12 A (at <math>\leq 50\text{ }^\circ\text{C}</math>) at <math>\leq 440\text{ V}</math> AC-3e for power circuit<br>10 A (at <math>\leq 60\text{ }^\circ\text{C}</math>) at <math>\leq 440\text{ V}</math> AC-3e for power circuit |
| Auxiliary contact composition  | 1 NO   |

### Complementary

|  |  |
|--|--|
| Auxiliary contacts type                | type instantaneous 1 NO  |
| Control circuit voltage limits         | Operational: 0.8...1.15 $U_c$ (at <math>\leq 50\text{ }^\circ\text{C}</math>)<br>Drop-out: 0.1...0.75 $U_c$ (at <math>\leq 50\text{ }^\circ\text{C}</math>)  |
| [Ui] rated insulation voltage          | Power circuit: 600 V conforming to UL 508<br>Power circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-5-1<br>Signalling circuit: 600 V conforming to UL 508<br>Power circuit: 600 V conforming to CSA C22.2 No 14<br>Signalling circuit: 600 V conforming to CSA C22.2 No 14 |
| [Uimp] rated impulse withstand voltage | 8 kV   |
| Overvoltage category                   | III  |
| Mounting support                       | Plate<br>Rail  |
| 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   |
| Tightening torque                      | 0.8...1.3 N.m - on screw clamp terminals Philips No 2<br>0.8...1.3 N.m - on screw clamp terminals flat $\varnothing$ 6 mm  |

0.8...1.3 N.m - on screw clamp terminals pozidriv No 2

|  |   |
|--|---|
| <b>[Ue] rated operational voltage</b>              | Power circuit: 690 V AC 50/60 Hz<br>Signalling circuit: 690 V AC 50/60 Hz   |
| <b>[Ith] conventional free air thermal current</b> | 20 A (at 50 °C) for power circuit<br>10 A (at 50 °C) for signalling circuit   |
| <b>Irms rated making capacity</b>                  | 110 A AC for signalling circuit conforming to IEC 60947<br>144 A AC for power circuit conforming to NF C 63-110<br>144 A AC for power circuit conforming to IEC 60947                 |
| <b>Rated breaking capacity</b>                     | 110 A at 440 V conforming to IEC 60947<br>80 A at 500 V conforming to IEC 60947<br>70 A at 660...690 V conforming to IEC 60947  |
| <b>Associated fuse rating</b>                      | 25 A gG at <= 440 V for power circuit<br>25 A aM for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947<br>10 A gG for signalling circuit conforming to VDE 0660 |
| <b>Average impedance</b>                           | 3 mOhm - Ith 20 A 50 Hz for power circuit   |
| <b>Inrush power in W</b>                           | 3 W (at 20 °C)  |
| <b>Hold-in power consumption in W</b>              | 3 W at 20 °C  |
| <b>Operating time</b>                              | 30...40 ms coil energisation and NO closing<br>10 ms coil de-energisation and NO opening  |
| <b>Safety reliability level</b>                    | 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                  |
| <b>Mechanical durability</b>                       | 10 Mcycles  |
| <b>Maximum operating rate</b>                      | 3600 cyc/h  |
| <b>Minimum switching current</b>                   | 5 mA for signalling circuit   |
| <b>Minimum switching voltage</b>                   | 17 V for signalling circuit   |
| <b>Insulation resistance</b>                       | > 10 MOhm for signalling circuit  |
| <b>Height</b>                                      | 58 mm   |
| <b>Width</b>                                       | 45 mm   |
| <b>Depth</b>                                       | 57 mm   |
| <b>Net weight</b>                                  | 0.225 kg  |

## Environment

|  |   |
|--|---|
| <b>Standards</b>   | EN/IEC 60947-4-1<br>GB/T 14048.4<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>JIS C8201-4-1 |
| <b>Product certifications</b>                                | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA  |
| <b>Ambient air temperature for operation</b>                 | -25...50 °C   |
| <b>Ambient air temperature for storage</b>                   | -50...80 °C   |
| <b>Permissible ambient air temperature around the device</b> | -40...70 °C at Uc   |
| <b>Operating altitude</b>                                    | 2000 m without derating   |

## Packing Units

|                                     |     |
|-------------------------------------|-----|
| <b>Unit Type of Package 1</b>       | PCE |
| <b>Number of Units in Package 1</b> | 1   |

|                              |            |
|------------------------------|------------|
| Package 1 Height             | 5.000 cm   |
| Package 1 Width              | 6.000 cm   |
| Package 1 Length             | 6.500 cm   |
| Package 1 Weight             | 223.000 g  |
| Unit Type of Package 2       | S02        |
| Number of Units in Package 2 | 40         |
| Package 2 Height             | 15.000 cm  |
| Package 2 Width              | 30.000 cm  |
| Package 2 Length             | 40.000 cm  |
| Package 2 Weight             | 9.157 kg   |
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 640        |
| Package 3 Height             | 75.000 cm  |
| Package 3 Width              | 80.000 cm  |
| Package 3 Length             | 60.000 cm  |
| Package 3 Weight             | 154.512 kg |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| REACH free of SVHC         | Yes   |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)   |
| RoHS exemption information | <a href="#">Yes</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End of Life Information</a>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Contractual warranty

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

## Recommended replacement(s)