# Product datasheet Characteristics

# LP5K090045BW3

TeSys K changeover contactor - 4P - AC-1 <= 440 V 20 A - 24 V DC coil



Price\*: 90.91 GBP



#### Main

| Widin                                       |   | • |
|---|---|---|
| Range                                       | TeSys   |   |
| Product name                                | TeSys K   |   |
| Product or component type                   | Changeover contactor  |   |
| Device short name                           | LP5K  |   |
| Device application                          | Control   | : |
| Contactor application                       | Resistive load  |   |
| Utilisation category                        | AC-1  |   |
| Device presentation                         | Preassembled with reversing power busbar  |   |
| Poles description                           | 4P  |   |
| Power pole contact composition              | 4 NO  |   |
| [Ue] rated operational voltage              | Power circuit: 690 V AC 50/60 Hz  |   |
| [le] rated operational current              | 20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit 16 A (at <70 °C) at 690 V AC AC-1 for power circuit  |   |
| Control circuit type                        | DC low consumption  |   |
| [Uc] control circuit voltage                | 24 V DC   |   |
| [Uimp] rated impulse withstand voltage      | 8 kV  |   |
| Overvoltage category                        | III   | : |
| [lth] 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 63-110 110 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 220230 V conforming to IEC 60947<br>110 A at 380400 V conforming to IEC 60947<br>70 A at 660690 V conforming to IEC 60947 |   |
| [lcw] rated short-time withstand current    | 90 A 50 °C - 1 s for power circuit<br>85 A 50 °C - 5 s for power circuit<br>80 A 50 °C - 10 s for power circuit   |   |

|                               | 60 A 50 °C - 30 s for power circuit 45 A 50 °C - 1 min for power circuit 40 A 50 °C - 3 min for power circuit 20 A 50 °C - >= 15 min for power circuit            |  |
|-------------------------------|---|--|
| Associated fuse rating        | 25 A gG at <= 440 V for power circuit 25 A aM for power circuit   |  |
| Average impedance             | 3 mOhm - Ith 20 A 50 Hz for power circuit   |  |
| [Ui] rated insulation voltage | Power circuit: 600 V conforming to UL 508  Power circuit: 690 V conforming to IEC 60947-4-1  Power circuit: 600 V conforming to CSA C22.2 No 14                   |  |
| Electrical durability         | 0.18 Mcycles 20 A AC-1 at Ue <= 440 V   |  |
| Interlocking type             | Mechanical  |  |
| Mounting support              | Plate<br>Rail   |  |
| Standards                     | IEC 60947<br>NF C 63-110<br>VDE 0660<br>BS 5424   |  |
| Product certifications        | CSA<br>UL   |  |
| Connections - terminals       | Solder pins - busbar cross section: 1.5 x 0.9 mm  |  |
| Operating time                | 1020 ms coil de-energisation and NO opening 3040 ms coil energisation and NO 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         | 5 Mcycles   |  |
| Maximum operating rate        | 3600 cyc/h  |  |
|                               |   |  |

## Complementary

| Coil technology                | Built-in bidirectional peak limiting diode suppressor                  |
|--------------------------------|--|
| Control circuit voltage limits | Operational: 0.71.30 Uc (at <50 °C)<br>Drop-out: 0.10.7 Uc (at <50 °C) |
| 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  |

#### Environment

| IP degree of protection               | IP20 conforming to VDE 0106  |  |
|---------------------------------------|--|--|
| Protective treatment                  | TC conforming to IEC 60068 TC conforming to DIN 50016  |  |
| Ambient air temperature for operation | -2550 °C   |  |
| Ambient air temperature for storage   | -5080 °C   |  |
| Operating altitude                    | 2000 m without   |  |
| Flame retardance                      | V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102   |  |
| Mechanical robustness                 | Shocks contactor closed, on Z axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Z axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Vibrations contactor closed: 4 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor opened: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Shocks contactor opened, on X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Y axis: 6 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on X axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Y axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 |  |
| Height                                | 58 mm  |  |
| Width                                 | 90 mm  |  |
| Depth                                 | 57 mm  |  |
| Product weight                        | 0.49 kg  |  |

## Offer Sustainability

| Sustainable offer status   | Green Premium product   |  |
|----------------------------|---|--|
| REACh Regulation           | REACh Declaration   |  |
| REACh free of SVHC         | Yes   |  |
| EU RoHS Directive          | Compliant EU RoHS Declaration   |  |
| Mercury free               | Yes   |  |
| RoHS exemption information | Yes   |  |
| China RoHS Regulation      | China RoHS declaration Product out of China RoHS scope. Substance declaration for your information                          |  |
| 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 |  |

#### Contractual warranty

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