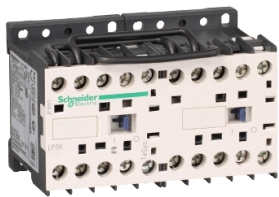


# Product data sheet

Specifications



## TeSys K reversing contactor , 3P , AC-3 <= 440 V 12 A , 1 NO , 48 V DC coil

LP5K1210EW3

❗ Discontinued

### Main

|                                             |                                                                                                                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                  |
| Product Name                                | TeSys K                                                                                                                                                                                                |
| Product Or Component Type                   | Reversing contactor                                                                                                                                                                                    |
| Device Short Name                           | LP5K                                                                                                                                                                                                   |
| Device Application                          | Control                                                                                                                                                                                                |
| Contactor Application                       | Motor control<br>Resistive load                                                                                                                                                                        |
| Utilisation Category                        | AC-3<br>AC-4<br>AC-1                                                                                                                                                                                   |
| Device Presentation                         | Preassembled with reversing power busbar                                                                                                                                                               |
| Poles Description                           | 3P                                                                                                                                                                                                     |
| Power Pole Contact Composition              | 3 NO                                                                                                                                                                                                   |
| [Ue] Rated Operational Voltage              | Power circuit: 690 V AC 50/60 Hz<br>Signalling circuit: <= 690 V AC 50/60 Hz                                                                                                                           |
| [Ie] Rated Operational Current              | 20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit<br>16 A (at <70 °C) at 690 V AC AC-1 for power circuit<br>12 A at <= 440 V AC AC-3 for power circuit                                            |
| Motor Power Kw                              | 4 kW at 480 V AC 50/60 Hz<br>4 kW at 500...600 V AC 50/60 Hz<br>4 kW at 660...690 V AC 50/60 Hz<br>3 kW at 220...230 V AC 50/60 Hz<br>5.5 kW at 380...415 V AC 50/60 Hz<br>5.5 kW at 440 V AC 50/60 Hz |
| Control Circuit Type                        | DC low consumption                                                                                                                                                                                     |
| [Uc] Control Circuit Voltage                | 48 V DC                                                                                                                                                                                                |
| Auxiliary Contact Composition               | 1 NO                                                                                                                                                                                                   |
| [Uimp] Rated Impulse Withstand Voltage      | 8 kV                                                                                                                                                                                                   |
| Overvoltage Category                        | III                                                                                                                                                                                                    |
| [Ith] Conventional Free Air Thermal Current | 20 A (at 50 °C) for power circuit<br>10 A (at 50 °C) for signalling circuit                                                                                                                            |
| Irms Rated Making Capacity                  | 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                                  |
| Rated Breaking Capacity                     | 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                                                                         |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Icw] Rated Short-Time Withstand Current | 115 A 50 °C - 1 s for power circuit<br>105 A 50 °C - 5 s for power circuit<br>100 A 50 °C - 10 s for power circuit<br>75 A 50 °C - 30 s for power circuit<br>55 A 50 $\blacklozenge\blacklozenge$ C - 1 min for power circuit<br>50 A 50 °C - 3 min for power circuit<br>80 A - 1 s for signalling circuit<br>90 A - 500 ms for signalling circuit<br>110 A - 100 ms for signalling circuit<br>25 A 50 °C - $\geq$ 15 min for power circuit                                                    |
| Associated Fuse Rating                   | 25 A gG at $\leq$ 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                                                                                                                                                                                                                                                                                                      |
| Average Impedance                        | 3 mOhm - lth 20 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [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                                                                                                             |
| Electrical Durability                    | 0.3 Mcycles 20 A AC-1 at Ue $\leq$ 440 V<br>1.3 Mcycles 12 A AC-3 at Ue $\leq$ 440 V                                                                                                                                                                                                                                                                                                                                                                                                           |
| Interlocking Type                        | Mechanical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mounting Support                         | Rail<br>Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Standards                                | VDE 0660<br>BS 5424<br>NF C 63-110<br>IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product Certifications                   | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Connections - Terminals                  | Screw clamp terminals 1 cable(s) 1.5...4 mm <sup>2</sup> solid<br>Screw clamp terminals 1 cable(s) 0.75...4 mm <sup>2</sup> flexible without cable end<br>Screw clamp terminals 1 cable(s) 0.34...2.5 mm <sup>2</sup> flexible with cable end<br>Screw clamp terminals 2 cable(s) 1.5...4 mm <sup>2</sup> solid<br>Screw clamp terminals 2 cable(s) 0.75...4 mm <sup>2</sup> flexible without cable end<br>Screw clamp terminals 2 cable(s) 0.34...1.5 mm <sup>2</sup> flexible with cable end |
| Tightening Torque                        | 1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm                                                                                                                                                                                                                                                                                                                                                        |
| Operating Time                           | 10...20 ms coil de-energisation and NO opening<br>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                    | 5 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Maximum Operating Rate                   | 3600 cyc/h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Complementary

|                                |                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------|
| Coil Technology                | Built-in bidirectional peak limiting diode suppressor                                    |
| Control Circuit Voltage Limits | Operational: 0.7...1.30 Uc (at $\leq$ 50 °C)<br>Drop-out: 0.1...0.7 Uc (at $\leq$ 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                            |
| 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

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ip Degree Of Protection               | IP20 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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 conforming to IEC 60068-2-27<br>Shocks contactor opened, on Z axis: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Vibrations contactor closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6<br>Vibrations contactor opened: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6<br>Shocks contactor opened, on X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor opened, on Y axis: 6 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor closed, on X axis: 15 Gn for 11 ms conforming to IEC 60068-2-27<br>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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Net Weight                            | 0.49 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Packing Units

|                              |     |
|------------------------------|-----|
| Unit Type Of Package 1       | PCE |
| Number Of Units In Package 1 | 1   |

## Contractual warranty

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