

# TeSys K reversing contactor , 3P , AC-3 $\leq$ 440 V 12 A , 1 NO , 12 V AC coil

LC2K1210J7

#### ! Discontinued

#### Main

| Range  | TeSys  |
|--|--|
| Product Name                                   | TeSys K  |
| Product Or Component Type                      | Reversing contactor  |
| Device Short Name                              | LC2K   |
| Device Application                             | Control  |
| Contactor Application                          | Motor control<br>Resistive load  |
| Utilisation Category                           | AC-1<br>AC-4<br>AC-3   |
| 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   |
| [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 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 500600 V AC 50/60 Hz<br>4 kW at 660690 V AC 50/60 Hz<br>3 kW at 220230 V AC 50/60 Hz<br>5.5 kW at 380415 V AC 50/60 Hz<br>5.5 kW at 440 V AC 50/60 Hz |
| Control Circuit Type                           | AC at 50/60 Hz   |
| [Uc] Control Circuit Voltage                   | 12 V AC 50/60 Hz   |
| Auxiliary Contact Composition                  | 1 NO   |
| [Uimp] Rated Impulse Withstand Voltage         | 8 kV   |
| Overvoltage Category                           | III  |
| [Ith] Conventional Free Air<br>Thermal Current | 20 A (at 50 °C) for power circuit<br>10 A (at 50 °C) for signalling circuit  |
| Irms Rated Making Capacity                     | 144 A at 690 V AC for power circuit conforming to NF C 63-110<br>144 A at 690 V AC for power circuit conforming to IEC 60947<br>110 A AC for signalling 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 660690 V conforming to IEC 60947  |

| [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   |
|--|--|
|  | 100 A 50 °C - 10 s for power circuit   |
|  | 75 A 50 °C - 30 s for power circuit  |
|  | 55 A 50 °C - 1 min for power circuit   |
|  | 50 A 50 °C - 3 min for power circuit   |
|  | 80 A - 1 s for signalling circuit  |
|  | 90 A - 500 ms for signalling circuit   |
|  | 110 A - 100 ms for signalling circuit  |
|  | 25 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 10 A gG for signalling circuit conforming to IEC 60947   |
|  | 10 A gG for signalling circuit conforming to IEC 00947   |
| 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   |
|  | Signalling circuit: 690 V conforming to IEC 60947-4-1  |
|  | Signalling circuit: 690 V conforming to IEC 60947-5-1  |
|  | Signalling circuit: 600 V conforming to UL 508   |
|  | 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 <= 440 V   |
| •  | 1.3 Mcycles 12 A AC-3 at Ue <= 440 V   |
| Interlocking Type                        | Mechanical   |
| Mounting Support                         | Rail<br>Plate  |
| Standards                                | VDE 0660   |
|  | IEC 60947  |
|  | NF C 63-110  |
|  | BS 5424  |
| Product Certifications                   | CB Scheme  |
|  | CCC  |
|  | UL   |
|  | CSA  |
|  | EAC  |
|  | CE   |
|  | UKCA   |
| Connections - Terminals                  | Screw clamp terminals 1 cable(s) 1.54 mm²solid   |
|  | Screw clamp terminals 1 cable(s) 0.754 mm²flexible without cable end   |
|  | Screw clamp terminals 1 cable(s) 0.342.5 mm²flexible with cable end  |
|  | Screw clamp terminals 2 cable(s) 1.54 mm²solid   |
|  | Screw clamp terminals 2 cable(s) 0.754 mm²flexible without cable end   |
|  | Screw clamp terminals 2 cable(s) 0.341.5 mm²flexible with cable end  |
|  |  |
| Tightening Torque                        | <ul><li>1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2</li><li>1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm</li></ul> |
| Operating Time                           | 1020 ms coil energisation and NO closing   |
|  | 1020 ms coil de-energisation and NO opening  |
| Safety Reliability Level                 | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1   |
| Salety Reliability Level                 | B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO   |
|  | 13849-1  |
| Mechanical Durability                    | 5 Mcycles  |
| Maximum Operating Rate                   | 3600 cyc/h   |
|  |  |
| Complementary                            |  |
| Control Circuit Voltage Limits           | Operational: 0.81.15 Uc (at <50 °C) Drop-out: 0.20.75 Uc (at <50 °C)   |
| Inrush Power In Va                       | 30 VA (at 20 °C)   |
| Hold-In Power Consumption In Va          | 4.5 VA (at 20 °C)  |
| <br>Heat Dissipation                     | 1.3 W  |
| •  |  |

| Auxiliary Contacts Type      | type instantaneous 1 NO          |
|------------------------------|----------------------------------|
| Signalling Circuit Frequency | <= 400 Hz                        |
| 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 TC conforming to DIN 50016  |
| Ambient Air Temperature For<br>Operation | -2550 °C   |
| Ambient Air Temperature For<br>Storage   | -5080 °C   |
| Operating Altitude                       | 2000 m without derating  |
| 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 X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Y axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Z axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on X axis: 6 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Y axis: 10 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 |
| Height                                   | 58 mm  |
| Width                                    | 90 mm  |
| Depth                                    | 57 mm  |
| Net Weight                               | 0.39 kg  |

# **Packing Units**

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

## **Contractual warranty**

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