

# Product datasheet

Specifications



## TeSys K contactor - 3P - AC-3 <= 440 V 16 A - 1 NC aux. - 230 V AC coil

LC1K1601P7S335

❗ Discontinued on: 30 June 2020

❗ End-of-service on: 30 June 2020

❗ Discontinued

LC1K1601P7S335 has not been replaced. Please contact your customer care centre for more information.

### Main

Range	TeSys
Product or component type	Contactors
Product name	TeSys K
Device short name	LC1K
Device application	Control
Contactors application	Motor control

### Complementary

Utilisation category	AC-3 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: 690 V AC 50/60 Hz Signalling circuit: 690 V AC 50/60 Hz
[Ie] rated operational current	16 A at <= 440 V AC-3 for power circuit 20 A (at <50 °C) at <= 440 V AC-1 for power circuit 16 A (at <70 °C) at <= 690 V AC-1 for power circuit
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	230 V AC 50/60 Hz
Motor power kW	4 kW at 480 V AC 50/60 Hz 4 kW at 500...600 V AC 50/60 Hz 4 kW at 660...690 V AC 50/60 Hz 5.5 kW at 440 V AC 50/60 Hz 4 kW at 220...230 V AC 50/60 Hz 7.5 kW at 380...415 V AC 50/60 Hz
Auxiliary contact composition	1 NC
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	20 A (at 50 °C) for power circuit 10 A (at 50 °C) for signalling circuit
Irms rated making capacity	110 A AC for signalling circuit conforming to IEC 60947 160 A AC for power circuit conforming to NF C 63-110 160 A AC for power circuit conforming to IEC 60947

Rated breaking capacity	110 A at 440 V conforming to IEC 60947 80 A at 500 V conforming to IEC 60947 70 A at 660...690 V conforming to IEC 60947
[Icw] rated short-time withstand current	115 A 50 °C - 1 s for power circuit 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 VDE 0660
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: 600 V conforming to CSA C22.2 No 14 Signalling circuit: 600 V conforming to CSA C22.2 No 14 Power circuit: 750 V conforming to VDE 0110 group C Power circuit: 690 V conforming to BS 5424 Power circuit: 690 V conforming to NF C 20-040 Power circuit: 690 V conforming to IEC 60947 Signalling circuit: 690 V conforming to IEC 60947 Signalling circuit: 690 V conforming to BS 5424 Signalling circuit: 600 V conforming to VDE 0110 group C
Insulation resistance	> 10 MOhm for signalling circuit
Inrush power in VA	30 VA (at 20 °C)
Hold-in power consumption in VA	4.5 VA (at 20 °C)
Heat dissipation	1.3 W
Control circuit voltage limits	Drop-out: 0.2...0.75 Uc (at <50 °C) Operational: 0.85...1.15 Uc (at <50 °C)
Connections - terminals	Screw clamp terminals 1 cable(s) 1.5...4 mm²solid Screw clamp terminals 1 cable(s) 0.75...4 mm²flexible without cable end Screw clamp terminals 1 cable(s) 0.34...2.5 mm²flexible with cable end Screw clamp terminals 2 cable(s) 1.5...4 mm²solid Screw clamp terminals 2 cable(s) 0.75...4 mm²flexible without cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm²flexible with cable end
Maximum operating rate	3600 cyc/h
Auxiliary contacts type	type instantaneous 1 NC
Signalling circuit frequency	<= 400 Hz
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
Mounting support	Rail Plate
Tightening torque	0.8 N.m - on screw clamp terminals - with screwdriver Philips No 2 0.8 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm
Operating time	10...20 ms coil de-energisation and NO opening 10...20 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
Non overlap distance	0.5 mm
Mechanical durability	10 Mcycles
Electrical durability	1.3 Mcycles 16 A AC-3 at Ue <= 440 V
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, 5...300 Hz conforming to IEC 60068-2-6 Vibrations contactor opened: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6

Height	58 mm
Width	45 mm
Depth	57 mm
Net weight	0.235 kg

## Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 EN 60335-1
Product certifications	CB Scheme
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	-25...50 °C
Ambient air temperature for storage	-50...80 °C
Operating altitude	2000 m without derating
Flame retardance	V1 conforming to UL 94

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	180 g
Package 1 Height	4.8 cm
Package 1 width	6.2 cm
Package 1 Length	6.6 cm

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a> Pro-active China RoHS declaration (out of China RoHS legal scope)
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

## Contractual warranty

Warranty	18 months
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