

Product datasheet

Specifications



control relay, TeSys K,
4P(3NO+1NC), $\leq 690V$, 400 V AC
coil

CA2KN31V7

Main

Range	TeSys
Product name	TeSys CAK
Product or component type	Control relay
Device short name	CA2K
Contactor application	Control circuit
Utilisation category	DC-13 AC-15
Pole contact composition	3 NO + 1 NC
[Ue] rated operational voltage	$\leq 690 V \leq 400 Hz$
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	400 V AC 50/60 Hz

Complementary

[Ith] conventional free air thermal current	10 A (at 50 °C)
Irms rated making capacity	110 A conforming to IEC 60947
Associated fuse rating	10 A gG conforming to IEC 60947 10 A gG conforming to VDE 0660
[Ui] rated insulation voltage	690 V conforming to IEC 60947 750 V conforming to VDE 0110 group C 690 V conforming to BS 5424 600 V conforming to CSA C22.2 No 14
Mounting support	Plate Rail
Connections - terminals	Screw clamp terminals 1 cable(s) 1.5...4 mm ² solid Screw clamp terminals 2 cable(s) 1.5...4 mm ² solid Screw clamp terminals 1 cable(s) 0.75...4 mm ² flexible with cable end Screw clamp terminals 2 cable(s) 0.75...4 mm ² flexible without cable end Screw clamp terminals 1 cable(s) 0.34...1.5 mm ² flexible with cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm ² flexible without cable end
Tightening torque	1.3 N.m - on screw clamp terminals - with screwdriver flat \varnothing 6 mm 1.3 N.m - on screw clamp terminals - with screwdriver Philips No 26 mm 1.3 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Control circuit voltage limits	Drop-out: 0.2...0.75 U _c (at ≤ 50 °C) Operational: 0.8...1.15 U _c (at ≤ 50 °C)
Operating time	10...20 ms coil de-energisation and NO opening 10...20 ms coil energisation and NO closing 15...25 ms coil de-energisation and NC closing 5...15 ms coil energisation and NC opening
Mechanical durability	10 Mcycles
Maximum operating rate	10000 cyc/h

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

Immunity to microbreaks	2 ms
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
Minimum switching voltage	17 V
Minimum switching current	5 mA
Non overlap distance	0.5 mm
Insulation resistance	> 10 MOhm
Height	58 mm
Width	45 mm
Depth	57 mm
Net weight	0.18 kg

Environment

Standards	EN/IEC 60947-5-1 GB/T 14048.5 UL 60947-5-1 CSA C22.2 No 60947-5-1 JIS C8201-5-1
Product certifications	CB Scheme CCC UL CSA EAC CE UKCA
IP degree of protection	IP2X
Protective treatment	TC conforming to IEC 60068
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 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6 Shocks contactor open: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed: 15 Gn for 11 ms conforming to IEC 60068-2-27

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.8 cm
Package 1 Width	6.2 cm
Package 1 Length	6.6 cm
Package 1 Weight	180.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	50

Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	9.26 kg

Contractual warranty

Warranty (in months)	18
-----------------------------	----



Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint **58 kg CO2 eq.**

Use Better



Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **Yes**

[EU RoHS Directive](#) **Compliant**

REACH Regulation **[REACH Declaration](#)**

Use Longer



Lifetime extension

Repair **No**

Use Again



Repack and remanufacture

End of life manual availability **[End of Life Information](#)**

Take-back **No**

WEEE Label  **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**

Offer Marketing Illustration

Product benefits / Features

TeSys K Control Relays



Efficient

Engineered to enhance performance, this solution bridges automation with advanced power architectures to significantly boost motor efficiency.



Versatile

It provides flexible connection options, including screw clamp terminals, spring terminals, and direct welding onto printed circuit boards, making it adaptable to a wide range of installation requirements.



Compact size

This solution is compatible with all standard voltages available on the market and offers a compact design with a width of just 27 millimeters.



Offer Marketing Illustration

Product benefits / Features

TeSys K Technical Benefits



- Control relays for A.C. or D.C. control circuits (AC15, DC13)
- 4 contacts (with different combinations of NO + NC contacts)
- Simultaneous action between contacts
- Various relay Coil voltages: AC; DC
- Instantaneous contacts on the control relays
- Instantaneous and time delay auxiliary contact blocks
- Mounting and marking accessories
- Conforming to IEC 60947, NF C 63-110, VDE 0660, BS 5424