

# Product data sheet

Specifications



control relay, TeSys K, 4P(3NO +1NC), <=690V, 220...230V AC coil

CA2KN31M7

## Main

Range	TeSys
Product name	TeSys CAK
Product or component type	Control relay
Device short name	CA2K
Contact application	Control circuit
Utilisation category	AC-15 DC-13
Pole contact composition	3 NO + 1 NC
[Ue] rated operational voltage	<= 690 V <= 400 Hz
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	220...230 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 <sup>2</sup> solid Screw clamp terminals 2 cable(s) 1.5...4 mm <sup>2</sup> solid Screw clamp terminals 1 cable(s) 0.75...4 mm <sup>2</sup> flexible with cable end Screw clamp terminals 2 cable(s) 0.75...4 mm <sup>2</sup> flexible without cable end Screw clamp terminals 1 cable(s) 0.34...1.5 mm <sup>2</sup> flexible with cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm <sup>2</sup> flexible without cable end
Tightening torque	1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 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 <sub>c</sub> (at <50 °C) Operational: 0.8...1.15 U <sub>c</sub> (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

<b>Mechanical durability</b>	10 Mcycles
<b>Maximum operating rate</b>	10000 cyc/h
<b>Immunity to microbreaks</b>	2 ms
<b>Inrush power in VA</b>	30 VA (at 20 °C)
<b>Hold-in power consumption in VA</b>	4.5 VA (at 20 °C)
<b>Heat dissipation</b>	1.3 W
<b>Minimum switching voltage</b>	17 V
<b>Minimum switching current</b>	5 mA
<b>Non overlap distance</b>	0.5 mm
<b>Insulation resistance</b>	> 10 MOhm
<b>Height</b>	58 mm
<b>Width</b>	45 mm
<b>Depth</b>	57 mm
<b>Net weight</b>	0.18 kg

## Environment

<b>Standards</b>	BS 5424 IEC 60947 NF C 63-140 VDE 0660
<b>Product certifications</b>	UL CSA UKCA
<b>IP degree of protection</b>	IP2X
<b>Protective treatment</b>	TC conforming to IEC 60068
<b>Ambient air temperature for operation</b>	-25...50 °C
<b>Ambient air temperature for storage</b>	-50...80 °C
<b>Operating altitude</b>	2000 m without derating
<b>Flame retardance</b>	V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102
<b>Mechanical robustness</b>	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

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	4.5 cm
<b>Package 1 Width</b>	5.0 cm
<b>Package 1 Length</b>	6.5 cm
<b>Package 1 Weight</b>	177.41 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	50
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	30.0 cm

Package 2 Length	40.0 cm
Package 2 Weight	9.118 kg
Unit Type of Package 3	P06
Number of Units in Package 3	800
Package 3 Height	75.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	153.88 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Pro-active China RoHS declaration (out of China RoHS legal scope)
RoHS exemption information	Yes
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
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

Warranty	18 months
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## Recommended replacement(s)