## TeSys K control relay, 2NO/2NC, 690V, 110V AC coil, with integral suppression device

CA2KN22F72

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Range	TeSys
Product name	TeSys CAK
Product or component type	Control relay
Device short name	CA2K
Contactor application	Control circuit
Utilisation category	AC-15 DC-13
Pole contact composition	2 NO + 2 NC
[Ue] rated operational voltage	<= 690 V <= 400 Hz
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	110 V AC 50/60 Hz

Complementary		
Coil technology	Built-in bidirectional peak limiting diode suppressor	
[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	Rail Plate	
Connections - terminals	Screw clamp terminals 1 cable(s) 1.54 mm²solid Screw clamp terminals 2 cable(s) 1.54 mm²solid Screw clamp terminals 1 cable(s) 0.754 mm²flexible with cable end Screw clamp terminals 2 cable(s) 0.754 mm²flexible without cable end Screw clamp terminals 1 cable(s) 0.341.5 mm²flexible with cable end Screw clamp terminals 2 cable(s) 0.341.5 mm²flexible 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: 0.20.75 Uc (at <50 °C) Operational: 0.81.15 Uc (at <50 °C)	
Operating time	1020 ms coil de-energisation and NO opening	

10...20 ms coil energisation and NO closing 15...25 ms coil de-energisation and NC closing

Mechanical durability	10 Mcycles
Maximum operating rate	10000 cyc/h
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	BS 5424 IEC 60947 NF C 63-140 VDE 0660
Product certifications	UL CSA UKCA
IP degree of protection	IP2x
IP degree of protection  Protective treatment	
	IP2x
Protective treatment  Ambient air temperature for	IP2x TC conforming to IEC 60068
Protective treatment  Ambient air temperature for operation  Ambient air temperature for	IP2x TC conforming to IEC 60068 -2550 °C
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage	IP2x  TC conforming to IEC 60068  -2550 °C  -5080 °C
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude	IP2x  TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance	IP2x  TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5300 Hz conforming to IEC 60068-2-6 Shocks contactor open: 10 Gn for 11 ms conforming to IEC 60068-2-27
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance  Mechanical robustness	IP2x  TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5300 Hz conforming to IEC 60068-2-6 Shocks contactor open: 10 Gn for 11 ms conforming to IEC 60068-2-27
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance  Mechanical robustness  Packing Units	IP2x  TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5300 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
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance  Mechanical robustness  Packing Units  Unit Type of Package 1	IP2x  TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5300 Hz conforming to IEC 60068-2-7 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
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance  Mechanical robustness  Packing Units  Unit Type of Package 1  Number of Units in Package 1	TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5300 Hz conforming to IEC 60068-2-7 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
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance  Mechanical robustness  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight	TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5300 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  PCE  1  182 g
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance  Mechanical robustness  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height	TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor open: 10 Gn for 11 ms conforming to IEC 60068-2-7 Shocks contactor open: 10 Gn for 11 ms conforming to IEC 60068-2-27  PCE  1  182 g  6.5 cm
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance  Mechanical robustness  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 width	TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5300 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  PCE  1  182 g  6.5 cm
Protective treatment  Ambient air temperature for operation  Ambient air temperature for storage  Operating altitude  Flame retardance  Mechanical robustness  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 width  Package 1 Length	TC conforming to IEC 60068  -2550 °C  -5080 °C  2000 m without derating  V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102  Vibrations contactor open: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor closed: 4 Gn, 5300 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  PCE  1  182 g  6.5 cm  6.5 cm

Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm
Unit Type of Package 3	P06
Number of Units in Package 3	800
Package 3 Weight	160.08 kg
Package 3 Height	75 cm
Package 3 width	60 cm
Package 3 Length	80 cm
Offer Sustainability	

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
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 www.P65Warnings.ca.gov

## **Contractual warranty**

Warranty 18 months