Product data sheet
Characteristics

K1F013NCH
cam stepping switch - 2-pole - 45° - 12 A - for Ø 22 mm

Main

Range of product	Harmony K
Product or component type	Complete cam switch
Component name	K1
[Ith] conventional free air thermal current	12 A
Product mounting	Front mounting
Fixing mode	Ø 22 mm hole
Cam switch head type	With front plate 45 x 45 mm
Type of operator	Black handle, length = 35 mm
Rotary handle padlock-ing	Without
Presentation of legend	With metallic legend, 1 - 2 - 3 black marking
Cam switch function	Stepping switch
Return	Without
Off position	Without Off position
Poles description	2P
Switching positions	Right: 0° - 45° - 90°
IP degree of protection	IP65 conforming to NF C 20-010 IP65 conforming to IEC 529

Complementary

Number of steps	3
Switching angle	45 °
[Ui] rated insulation voltage	690 V degree of pollution 3 conforming to IEC 60947-1
[Ithe] conventional enclosed thermal current	10 A
Rated operational power in W	8300 W AC-21 / 400 V 3 phases conforming to IEC 947-3 600 W AC-3 / 230 V 1 phase conforming to IEC 947-3 4800 W AC-21 / 230 V 3 phases conforming to IEC 947-3 2200 W AC-23A / 690 V 3 phases conforming to IEC 947-3 2200 W AC-23A / 500 V 3 phases conforming to IEC 947-3 2200 W AC-23A / 400 V 3 phases conforming to IEC 947-3 1500 W AC-3 / 690 V 3 phases conforming to IEC 947-3 1500 W AC-3 / 500 V 3 phases conforming to IEC 947-3 1500 W AC-3 / 400 V 3 phases conforming to IEC 947-3 1500 W AC-3 / 400 V 1 phase conforming to IEC 947-3 1500 W AC-23A / 230 V 3 phases conforming to IEC 947-3 1100 W AC-3 / 230 V 3 phases conforming to IEC 947-3 10500 W AC-21 / 500...660 V 3 phases conforming to IEC 947-3
[Ie] rated operational current AC	5.6 A at 230 V AC-23A 3 phases conforming to IEC 947-3 4.8 A at 400 V AC-23A 3 phases conforming to IEC 947-3 4.6 A at 230 V AC-3 3 phases conforming to IEC 947-3 3.8 A at 500 V AC-23A 3 phases conforming to IEC 947-3 3.3 A at 400 V AC-3 3 phases conforming to IEC 947-3 2.8 A at 690 V AC-23A 3 phases conforming to IEC 947-3 2.8 A at 500 V AC-3 3 phases conforming to IEC 947-3 1.8 A at 690 V AC-3 3 phases conforming to IEC 947-3 3 A at 230 V AC-15 conforming to IEC 947-5-1 2 A at 400 V AC-15 conforming to IEC 947-5-1 1 A at 500 V AC-15 conforming to IEC 947-5-1
Electrical durability	500000 cycles AC-3 500000 cycles AC-23 1000000 cycles AC-21 1000000 cycles AC-15

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
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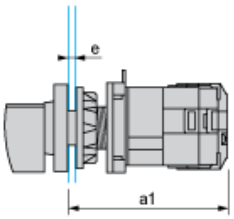
Operating rate	8.333 cyc/mn AC-15 2.5 cyc/mn AC-3 2.5 cyc/mn AC-23 2.5 cyc/mn AC-21
Short-circuit current	10000 A
Short circuit protection	16 A by cartridge fuse, type gG
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 947-1 4 kV in isolating function
Contacts operation	Slow-break
Positive opening	With
Electrical connection	Captive screw clamp terminals solid, 1 x 2.5 mm² Captive screw clamp terminals flexible, 2 x 1.5 mm²
Mechanical durability	1000000 cycles
CAD overall width	45 mm
CAD overall height	50 mm
CAD overall depth	69 mm
Product weight	0.19 kg

Environment

Standards	IEC 60947-5-1 for control circuit IEC 60947-3 for power circuit EN 60947-5-1 for control circuit EN 60947-3 for power circuit CENELEC EN 50013
Product certifications	UL 240 V 0.33 hp 1 phase 2 -pole(s) UL 240 V 1 hp 3 phases CSA 240 V 3 hp 3 phases 2 -pole(s) CSA 240 V 1 hp 1 phase
Protective treatment	TC
Ambient air temperature for operation	-25...55 °C
Ambient air temperature for storage	-40...70 °C
Shock resistance	30 gn conforming to IEC 68-2-27
Vibration resistance	5 gn, 10...150 Hz conforming to IEC 68-2-6
Class of protection against electric shock	Class II conforming to NF C 20-030 Class II conforming to IEC 536

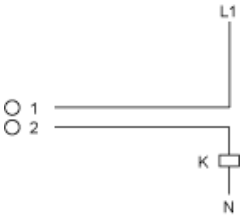
Operating Head and Body with Plastic Base

Front Mounting by Ø 22 mm/0.87 in. Hole

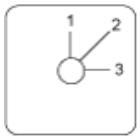


a1 90.5 mm/3.53 in.
e support panel thickness 1 mm to 6 mm./0.039 in. to 0.24 in.

Link Positions (Factory Mounted)



Marking

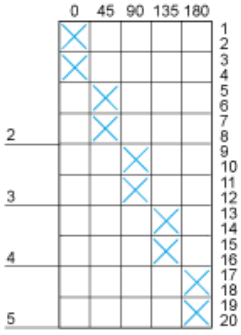


Angular Position of Switch

Switching Program

Diagram for 2 to 5-step Stepping Switches

Select the number of steps according to the product characteristics.



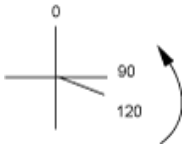
Convention Used for Switching Program Representation

Contact closed

Contact closed in 2 positions and maintained between the 2 positions

Sealed assembly for auto-maintain control

Overlapping contacts

Spring return position: for a switching angle of 90°, spring return is over 30° after the last position (for a maximum of 3 simultaneous contacts).

Example: