Product data sheet
Characteristics

K1F013QCH
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
Mounting location	Front
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 padlocking	Without
Presentation of legend	With metallic legend, 0 - 1 - 2 - 3 black marking
Cam switch function	Stepping switch
Return	Without
Off position	With Off position
Poles description	2P
Switching positions	Right: 0° - 45° - 90° - 135°
IP degree of protection	IP65 conforming to IEC 60529

Complementary

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

Maximum operating rate	2.5 Cyc/Mn AC-21 2.5 Cyc/Mn AC-23 2.5 Cyc/Mn AC-3 8.333 cyc/mn AC-15
Short-circuit current	10000 A
Short-circuit protection	16 A cartridge fuse, type gG
[Uimp] rated impulse withstand voltage	4 KV in isolating function 6 kV conforming to IEC 947-1
Contact operation	Slow-break
Positive opening	With
Electrical connection	Captive screw clamp terminals flexible, clamping capacity: 2 x 1.5 mm² Captive screw clamp terminals solid, clamping capacity: 1 x 2.5 mm²
Mechanical durability	1000000 cycles
CAD overall width	45 mm
CAD overall height	50 mm
CAD overall depth	69 mm
Net weight	0.19 kg

Environment

Standards	IEC 60947-3 for power circuit IEC 60947-5-1 for control circuit CENELEC EN 50013
Product certifications	CSA 240 V 3 hp 3 phases 2 -pole(s) UL 240 V 0.33 hp 1 phase 2 -pole(s) CSA 240 V 1 hp 1 phase UL 240 V 1 hp 3 phases
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 conforming to IEC 68-2-6 (f = 10…150 Hz)
Overvoltage category	Class II conforming to IEC 536 Class II conforming to NF C 20-030

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.5 cm
Package 1 Width	6.5 cm
Package 1 Length	16.5 cm
Package 1 Weight	203.0 g
Unit Type of Package 2	S01
Number of Units in Package 2	8
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	1.805 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration

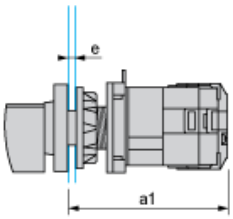
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months

Operating Head and Body with Plastic Base

Front Mounting by Ø 22 mm/0.87 in. Hole

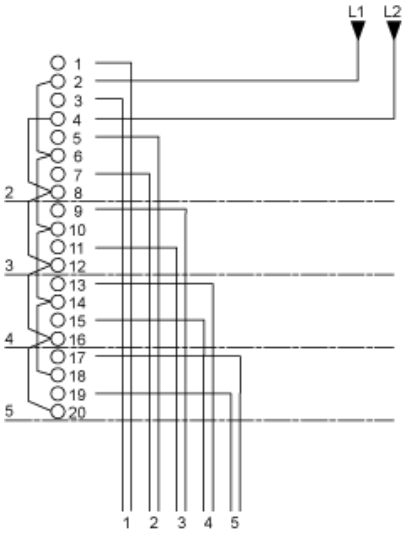


a1 90.5 mm/3.53 in.
e support panel thickness 1 mm to 6 mm./0.039 in. to 0.24 in.

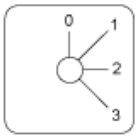
Link Positions (Factory Mounted)

Diagram for 2 to 5-step Stepping Switches

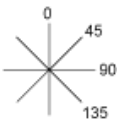
Select the number of steps according to the product characteristics.



Marking



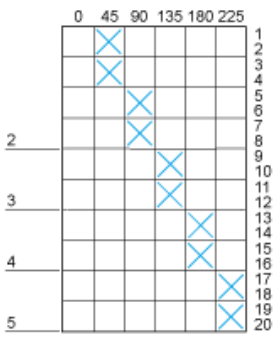
Angular Position of Switch



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: