

# K1F027MCH

cam voltmeter switch - 3L and 3L-N - 45° - 12 A - for Ø 22 mm



## Main

Range of product	Harmony K
Product or component type	Complete cam switch
Component name	K1
[I <sub>th</sub> ] 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 padlocking	Without
Presentation of legend	With metallic legend, 0 - L1N - L2N - L3N - L1L2 - L2L3 - L3L1 black marking
Cam switch function	Voltmeter switch
Return	Without
Type of measurement	Between 3 phases and between each of the 3 phases and neutral
Off position	With Off position
Switching positions	Left: 0° - 315° - 270° - 225° Right: 0° - 45° - 90° - 135°
IP degree of protection	IP65 conforming to NF C 20-010 IP65 conforming to IEC 529

## Complementary

Switching angle	45 °
[U <sub>i</sub> ] rated insulation voltage	690 V degree of pollution 3 conforming to IEC 60947-1
[I <sub>the</sub> ] 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
[I <sub>e</sub> ] 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 products 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. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

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 mm <sup>2</sup> Captive screw clamp terminals flexible, 2 x 1.5 mm <sup>2</sup>
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

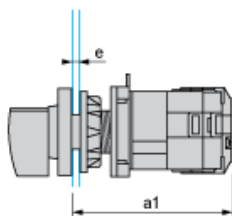
Standards	IEC 60947-5-1 for control circuit IEC 60947-3 for power circuit EN 60947-5-1 for control circuit EN 60947-3 for power circuit CENELEC EN 50013
Product certifications	UL 240 V 0.33 hp 1 phase 2 -pole(s) UL 240 V 1 hp 3 phases CSA 240 V 3 hp 3 phases 2 -pole(s) CSA 240 V 1 hp 1 phase
Protective 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

---

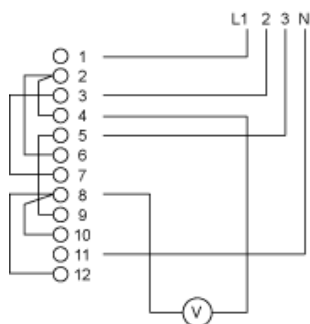
Front Mounting by  $\varnothing 22$  mm/0.87 in. Hole



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

	225	270	315	0	45	90	135
1	X		X		X		
2							
3							
4		X				X	
5							X
6							
7			X				
8							
9	X	X					
10					X	X	
11					X	X	
12					X	X	

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:

