



## Main

|                                                          |                                            |
|----------------------------------------------------------|--------------------------------------------|
| Range of product                                         | Harmony K                                  |
| Product or component type                                | Cam switch body                            |
| Component name                                           | K1                                         |
| [I <sub>th</sub> ] conventional free air thermal current | 12 A                                       |
| Sub-assembly composition                                 | Contact blocks + fixing plate              |
| Cam switch function                                      | BCD encoded output switch                  |
| Off position                                             | With Off position                          |
| Switching positions                                      | Right: 0° - 45° - 90° - 135° - 180° - 225° |
| Product mounting                                         | Rear mounting                              |
| Fixing mode                                              | 4 holes                                    |
| Bezel material                                           | Plastic                                    |

## Complementary

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of decimal                                         | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 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<br>600 W AC-3 / 230 V 1 phase conforming to IEC 947-3<br>4800 W AC-21 / 230 V 3 phases conforming to IEC 947-3<br>2200 W AC-23A / 690 V 3 phases conforming to IEC 947-3<br>2200 W AC-23A / 500 V 3 phases conforming to IEC 947-3<br>2200 W AC-23A / 400 V 3 phases conforming to IEC 947-3<br>1500 W AC-3 / 690 V 3 phases conforming to IEC 947-3<br>1500 W AC-3 / 500 V 3 phases conforming to IEC 947-3<br>1500 W AC-3 / 400 V 3 phases conforming to IEC 947-3<br>1500 W AC-3 / 400 V 1 phase conforming to IEC 947-3<br>1500 W AC-23A / 230 V 3 phases conforming to IEC 947-3<br>1100 W AC-3 / 230 V 3 phases conforming to IEC 947-3<br>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<br>4.8 A at 400 V AC-23A 3 phases conforming to IEC 947-3<br>4.6 A at 230 V AC-3 3 phases conforming to IEC 947-3<br>3.8 A at 500 V AC-23A 3 phases conforming to IEC 947-3<br>3.3 A at 400 V AC-3 3 phases conforming to IEC 947-3<br>2.8 A at 690 V AC-23A 3 phases conforming to IEC 947-3<br>2.8 A at 500 V AC-3 3 phases conforming to IEC 947-3<br>1.8 A at 690 V AC-3 3 phases conforming to IEC 947-3<br>3 A at 230 V AC-15 conforming to IEC 947-5-1<br>2 A at 400 V AC-15 conforming to IEC 947-5-1<br>1 A at 500 V AC-15 conforming to IEC 947-5-1                                                                                                                                                |
| Electrical durability                                     | 500000 cycles AC-3<br>500000 cycles AC-23<br>1000000 cycles AC-21<br>1000000 cycles AC-15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating rate                                            | 8.333 cyc/mn AC-15<br>2.5 cyc/mn AC-3<br>2.5 cyc/mn AC-23<br>2.5 cyc/mn AC-21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Short-circuit current                                     | 10000 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Short circuit protection                                  | 16 A by cartridge fuse, type gG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| [U <sub>imp</sub> ] rated impulse withstand voltage       | 6 kV conforming to IEC 947-1<br>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><br>Captive screw clamp terminals flexible, 2 x 1.5 mm <sup>2</sup> |
| Mechanical durability | 1000000 cycles                                                                                                                  |
| Product weight        | 0.14 kg                                                                                                                         |

## Environment

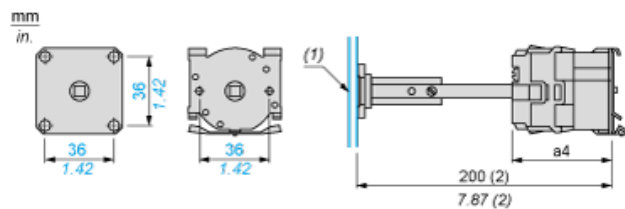
|                                            |                                                                                                                                                            |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                  | IEC 60947-5-1 for control circuit<br>IEC 60947-3 for power circuit<br>EN 60947-5-1 for control circuit<br>EN 60947-3 for power circuit<br>CENELEC EN 50013 |
| Product certifications                     | UL 240 V 0.33 hp 1 phase 2 -pole(s)<br>UL 240 V 1 hp 3 phases<br>CSA 240 V 3 hp 3 phases 2 -pole(s)<br>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<br>Class II conforming to IEC 536                                                                                       |

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Body

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Rear Mounting



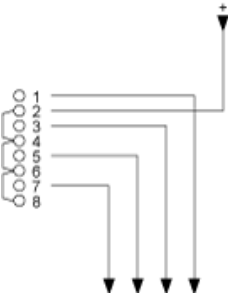
a4 52.5 mm/2.07 in.

(1) Panel cut-out: Ø 10 mm/0.39 in. central hole

Link Positions (Factory Mounted)

Diagram for 1 to 12-decimal BCD Encoded Ouput Switches

Select the maximum number of decimals according to the product characteristics.



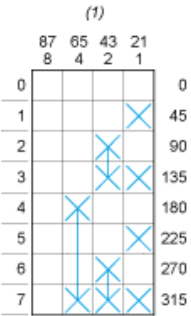
Angular Position of Switch



Switching Program

Diagram for 1 to 7-decimal BCD Encoded Ouput Switches

Select the maximum number of decimals according to the product characteristics.



(1) Contact marking value

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:

