

# Product data sheet

Specifications



## cam voltmeter switch - 3L-N - 45° - 12 A - screw mounting

K1D033MLH

⚠ Discontinued on: Oct 20, 2020

⚠ Discontinued

### 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	Multifixing
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, L1N - L2N - L3N black marking
Cam Switch Function	Voltmeter switch
Return	Without
Type Of Measurement	Between 3 phases and neutral
Off Position	Without Off position
Switching Positions	Right: 0° - 45° - 90°
Ip Degree Of Protection	IP40 conforming to IEC 529

### Complementary

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

Disclaimer: 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

<b>[Ie] Rated Operational Current Ac</b>	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
<b>Electrical Durability</b>	1000000 cycles AC-15 1000000 cycles AC-21 500000 cycles AC-23 500000 cycles AC-3
<b>Maximum Operating Rate</b>	2.5 cyc/mn AC-21 2.5 cyc/mn AC-23 2.5 cyc/mn AC-3 8.333 cyc/mn AC-15
<b>Short-Circuit Current</b>	10000 A
<b>Short-Circuit Protection</b>	16 A cartridge fuse, type gG
<b>[Uimp] Rated Impulse Withstand Voltage</b>	4 kV in isolating function 6 kV conforming to IEC 947-1
<b>Contact Operation</b>	Slow-break
<b>Positive Opening</b>	With
<b>Electrical Connection</b>	Captive screw clamp terminals flexible, clamping capacity: 2 x 1.5 mm <sup>2</sup> Captive screw clamp terminals solid, clamping capacity: 1 x 2.5 mm <sup>2</sup>
<b>Mechanical Durability</b>	1000000 cycles
<b>Cad Overall Width</b>	45 mm
<b>Cad Overall Height</b>	45 mm
<b>Cad Overall Depth</b>	87 mm
<b>Net Weight</b>	0.14 kg

## Environment

<b>Standards</b>	EN 60947-3 for power circuit EN 60947-5-1 for control circuit CENELEC EN 50013
<b>Product Certifications</b>	CSA 240 V 1 hp 1 phase CSA 240 V 3 hp 3 phases 2 -pole(s) UL 240 V 1 hp 3 phases UL 240 V 0.33 hp 1 phase 2 -pole(s)
<b>Protective Treatment</b>	TC
<b>Ambient Air Temperature For Operation</b>	-25...55 °C
<b>Ambient Air Temperature For Storage</b>	-40...70 °C
<b>Shock Resistance</b>	30 gn conforming to IEC 68-2-27
<b>Vibration Resistance</b>	5 gn conforming to IEC 68-2-6 (f = 10...150 Hz)
<b>Overvoltage Category</b>	Class II conforming to IEC 536 Class II conforming to NF C 20-030

## Contractual warranty

<b>Warranty</b>	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

✓ Reach Free Of Svhc

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information   Yes

## Certifications & Standards

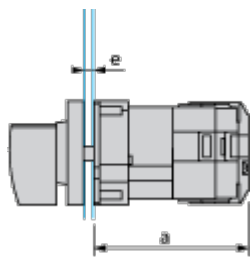
Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	No need of specific recycling operations
California Proposition 65	WARNING: This product can expose you to chemicals including: Nickel compounds, which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

Dimensions Drawings

Operating Head and Body

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Front Mounting "Multi-Fixing"

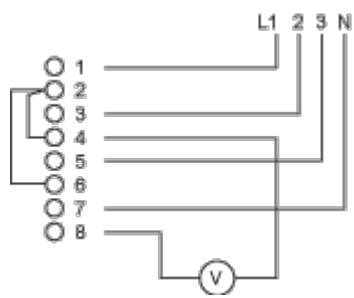


- a 63 mm/2.48 in.
- e support panel thickness 1 mm./0.039 in. to 0.24 in.

Technical Description

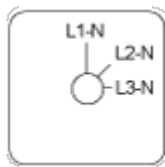
Link Positions (Factory Mounted)

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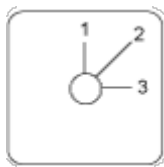
Marking

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Marking

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Switching Program

0	45	90	
X			1
	X		2
		X	3
			4
		X	5
	X		6
X			7
X		X	8



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:

