



Compact distribution board-flush mounting; 4-rows; flush sheet steel door



Part no. **KLV-48UPP-F**  
Catalog No. **178804**

## Delivery program

Product image			
Basic function			Basic device
Product function			Installation distribution boards
Product range			KLV energy
Design			Flush mounted
Installation site			Indoor
Type of installation			Flush mounting
Door/Flap			White
Degree of Protection			IP30
Colour			White
Module rack			Rail-frame
Shroud for protection against accidental contact			Plastic
Rows	Count		4
Module units per row			12
Description			IP30 Protection Class II Plastic enclosure with sheet steel door, white (RAL 9016)
Cable entries			Cable entries on top and bottom, side, back plate
PE and N terminals design			Plug-in terminals
PE and N terminals	Number x cross- sectional area	mm <sup>2</sup>	PE: 4 x (2.5 - 25) + 28 x (0.5 - 4) N: 4 x (2.5 - 25) + 28 x (0.5 - 4)
Equipment supplied			Wall trough Door/Frame Device support rails Front cover Neutral and protective conductor terminals with KSK plug-in terminal technology Spirit level for leveling 3D adjustment element for mounting designed to adjust the mounting depth by up to 18 mm Cable retainer Nail lugs Installation instructions Imprintable sheet

## Technical data

### General

Standards			IEC/EN 62208, IEC/EN 60670-24 (PD)
RoHS (in accordance with Directive 2002/95/EC of the European Parliament and Council)			conform
Ambient temperature		°C	-5 - +40
Degree of Protection			IP30
Protection class			II (totally insulated)
Rated operational voltage	U <sub>e</sub>	V AC	400
Rated frequency	f	Hz	50

### Material characteristics

Material			Polystyren (plastic) Sheet steel, powder-coated
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Colour		white (RAL 9016)
<b>Material properties</b>		
Mechanical		
Impact resistance		IK05

## Design verification as per IEC/EN 61439

Technical data for design verification			
Heat dissipation, at an ambient temperature of 35°C, delta T: 20 degrees in top of the enclosure, calculated as per IEC 60890			
Individual enclosure, flush mounting	P <sub>V</sub>	W	24
Heat dissipation, at an ambient temperature of 35°C, delta T: 35 degrees in top of the enclosure, calculated as per IEC 60890			
Individual enclosure, flush mounting	P <sub>V</sub>	W	48
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			650 °C; meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Not relevant to indoor installations.
10.2.5 Lifting			Does not apply to enclosures without lifting aids.
10.2.6 Mechanical impact			IK05
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			IP30
10.4 Clearances and creepage distances			Is the panel builder's responsibility.
10.5 Protection against electric shock			Protection class 2, therefore not applicable.
10.6 Incorporation of switching devices and components			Is the panel builder's responsibility.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			U <sub>i</sub> = 400 V AC
10.9.3 Impulse withstand voltage			4 kV
10.9.4 Testing of enclosures made of insulating material			Meets the product standard's requirements.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility.
10.13 Mechanical function			Meets the product standard's requirements.

## Technical data ETIM 7.0

Distribution boards (EG000023) / Small distribution board (EC000214)			
Electric engineering, automation, process control engineering / Electrical installation, device / Electrical distribution system (incl. small distribution board) / Small distribution board (ec1@ss10.0.1-27-14-24-09 [ACN387011])			
Mounting method			Flush mounted (plaster)
Number of rows			4
Width in number of modular spacings			12
Type of cover			Door
Cover model			With notch
Transparent cover/door			No
Material housing			Plastic
Height		mm	715
Width		mm	360
Depth		mm	100
Built-in depth		mm	88
Internal depth		mm	75
DIN-rail			Yes

With mounting plate		No
Extension possible		Yes
EMC-version		Yes
Colour		White
RAL-number		9016
Degree of protection (IP)		IP30
With lock		No
Type of closure		Other

## Dimensions



