

Part no. **KLV-48UPS-F**  
 Catalog No. **178820**

## Delivery program

|                                                  |                                      |                 |                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------|--------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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<br>Protection Class II<br>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                        |                                      |                 | Screw terminals                                                                                                                                                                                                                                                                                                                                           |
| PE and N terminals                               | Number<br>x cross-<br>sectional area | mm <sup>2</sup> | PE: 25 x (0.75 - 16)<br>N: 25 x (0.75 - 16)<br>N - Fi: 4x (0.75 - 16)                                                                                                                                                                                                                                                                                     |
| Equipment supplied                               |                                      |                 | Wall trough<br>Door/Frame<br>Device support rails<br>Front cover<br>Neutral and protective conductor terminals with SK screw terminal technology<br>Spirit level for leveling<br>3D adjustment element for mounting designed to adjust the mounting depth by up to 18 mm<br>Cable retainer<br>Nail lugs<br>Installation instructions<br>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)<br>Sheet steel, powder-coated |
| Colour   |  |  | white (RAL 9016)                                   |

### Material properties

|                   |  |  |      |
|-------------------|--|--|------|
| 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 8.0

|                                                                                                                                                                                                                                     |  |    |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------------------------|
| 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 (ecI@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                      |
| Built-in height                                                                                                                                                                                                                     |  | mm | 0                       |
| Built-in width                                                                                                                                                                                                                      |  | mm | 0                       |
| Internal depth                                                                                                                                                                                                                      |  | mm | 75                      |
| Earthing terminal block                                                                                                                                                                                                             |  |    | No                      |
| Neutral terminal block                                                                                                                                                                                                              |  |    | No                      |
| 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 |
| Signal passing door       |  |  | No    |