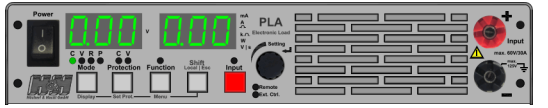


# Datasheet Series PLA

|   |                          |  |
|---|--------------------------|--|
| <b>Model</b>  | PLA212                   |  |
| <b>Order no.</b>  | 22-002-000-01            |  |
| <b>Max. input voltage V<sub>max</sub></b>                   | 120 V                    |  |
| <b>Min. input voltage V<sub>min</sub></b>                   | 1.2 V                    |  |
| <b>Max. load current I<sub>max</sub></b>                    | 15 A                     |  |
| <b>Continuous power</b>                                     | 200 W                    |  |
| <b>Short-time power<sup>1)</sup></b>                        | 300 W                    |  |
| <b>Voltage setting</b>                                      | 0 ... 120 V              |  |
| <b>Current setting</b>                                      | 0 ... 15 A               |  |
| <b>Resistance setting</b>                                   | 0.1333 Ohm ... 266.6 Ohm |  |
| <b>Power setting<sup>2)</sup></b>                           | 0 ... 300 W              |  |
| <b>Rise and fall time fast / medium / slow<sup>3)</sup></b> | 40 µs                    |  |
| <b>Load terminals (front)<sup>4)</sup></b>                  | SBU4-32                  |  |
| <b>Load terminals (rear)<sup>5)</sup></b>                   | SBU4-32                  |  |
| <b>Power consumption</b>                                    | 30 VA                    |  |
| <b>Max. noise<sup>6)</sup></b>                              | 49 dB(A)                 |  |
| <b>Weight ca.</b>   | 2.85 kg                  |  |
| <b>Housing<sup>7)</sup></b>                                 | ½ 19" - 1 HU             |  |

1. Level and duration of the peak power depend on the previous power.
2. The setting range extends max. to the possible shorttime power.
3. Rise and fall times are defined of 10 ... 90 % and 90 ... 10 % of the maximum current (current mode, FAST, tolerance ±20 %). Rise and fall time at setting "slow": approx. 500 µs.
4. PK4-30L: Pole terminal for 4 mm laboratory jack + stripped wires, max. 30 A  
BPK4-30L: Pole terminal touch-protected for 4 mm laboratory jack + stripped wires, max. 30 A  
BPK4-60L: Pole terminal touch-protected for 4 mm laboratory jack + stripped wires, max. 60 A  
SBU4-32: Safety socket for 4 mm safety connector, max. 32 A  
FKS20/4-SM8: Flat copper bar 20x4 mm mounted vertically with M8 screw
5. PK4-30L: Pole terminal for 4 mm laboratory jack + stripped wires, max. 30 A  
BPK4-30L: Pole terminal touch-protected for 4 mm laboratory jack + stripped wires, max. 30 A  
BPK4-60L: Pole terminal touch-protected for 4 mm laboratory jack + stripped wires, max. 60 A  
SBU4-32: Safety socket for 4 mm safety connector, max. 32 A  
FKS20/4-SM8: Flat copper bar 20x4 mm mounted vertically with M8 screw
6. Measured on the front from distance of 1 m
7. Device height incl. equipment feet. Maximum width and depth incl. handle. Installation depth without connection cable. 1 HU = 44.45 mm

| Accuracy of setting  |  |                            |
|--|--|----------------------------|
|  | of setting value   | of corresponding range     |
| Voltage  | ±0.1 %   | ±0.05 %                    |
| Current  | ±0.2 %   | ±0.05 %                    |
| Resistance<br>(at 5 % to 100 % of voltage range)                         | ±1.4 %   | ±0.3 % of current range    |
| Power<br>(at V and I > 10 % of range)<br>(at V or I 5 ... 10 % of range) | ±0.7 %<br>±2 %   |                            |
| Resolution   | 12 Bit   |                            |
| Accuracy of adjustable protections                                       |  |                            |
|  | of setting value   | of corresponding range     |
| Overcurrent protection   | ±0.5 %   | ±0.05 %                    |
| Undervoltage protection  | ±0.3 %   | ±0.02 %                    |
| Resolution   | 12 Bit   |                            |
| Accuracy of measurement  |  |                            |
|  | of measured (real) value   | of corresponding range     |
| Voltage  | ±0.1 %   | ±0.05 %                    |
| Current  | ±0.2 %   | ±0.05 %                    |
| Resistance   | is calculated from voltage and current   |                            |
| Power  | is calculated from voltage and current   |                            |
| Resolution   | 16 bits  |                            |
| Sampling rate  | 100 µs, not triggerable  |                            |
| Accuracy of displays (user interface)                                    |  |                            |
| Display user interface   | accuracy of each measurement, ±1 digit of the display value  |                            |
| Resolution   | see display resolution page 22   |                            |
| Dynamic function (LIST)  |  |                            |
| Number of load levels  | max. 100, with corresponding ramp and dwell time   |                            |
|  | min.   | max.                       |
| Dwell time   | 1 ms   | 100 s                      |
| Ramp time  | 0 s  | 100 s                      |
| Resolution   | 1 ms   |                            |
| Accuracy of setting times  | ±0.02 %  |                            |
| Data acquisition   |  |                            |
|  | to internal memory   |                            |
| Sampling rate  | 1 ms ... 100 s, 1 ms resolution  |                            |
| Measurement data   | time stamp, voltage, current   |                            |
| Number of measurement points   | max. 100   |                            |
| Settings memories  |  |                            |
| Number of user settings  | 10, selectable (incl. programmed list)   |                            |
| Accuracy of analog control 0 ... 10 V                                    |  |                            |
|  | of the setting value   | of the corresponding range |
| Voltage  | ±0.2 %   | ±0.05 %                    |
| Current  | ±0.2 %   | ±0.05 %                    |
|  | input resistance of analog inputs >10 kΩ<br>GND max. 2 V <sup>1)</sup> with respect to negative load input |                            |

| I/O port outputs and inputs                      |   |                |
|--|---|----------------|
| Status and control outputs                       | Status load input (on/off)<br>overload (OV, OCP, OPP, OTP)  |                |
| Output level                                     | 5 V   |                |
| Control inputs                                   | load input (on/off)<br>control input (activates I/O port)   |                |
| Input level                                      | 3 ... 30 V  |                |
| Accuracy of analog monitor outputs 0 ... 10 V    |   |                |
|  | of analog signal<br>of real value   | offset voltage |
| Voltage  | ±0.1 %  | ±15 mV         |
| Current  | ±0.2 %  | ±15 mV         |
|  | minimum load 2 kΩ<br>GND max. 2 V <sup>1)</sup> with respect to negative load input   |                |
| Input  |   |                |
| Input resistance                                 | >50 kΩ when load input is off<br>diode function at reverse polarity up to nominal current   |                |
| Input capacity                                   | max. 3 µF   |                |
| Parallel operation                               | up to 5 devices in Master-Slave operation<br>(hardware-controlled)  |                |
| Maximum input voltage V <sub>max</sub>           | see model overview  |                |
| Minimum input voltage V <sub>min</sub>           | 1.2 V for maximum current, linear derating to 0 V   |                |
|  |   |                |
| Permissible potential                            | negative load input - PE: 125 V <sup>1)</sup>   |                |
| Power  |   |                |
| Continuous power                                 | see model overview (at Ta = 21 °C)  |                |
| Derating   | -1.2 %/°C für Tu > 21 °C  |                |
| Overload capacity                                | see model overview<br>The possible short-time power depends on the temperature of the device and with that on the normal rating taken before. |                |
| Protection and monitoring                        |   |                |
| Protective devices                               | overcurrent<br>overpower<br>overtemperature   |                |
| Monitoring                                       | overvoltage indication<br>reverse polarity indication<br>undervoltage display (if the input voltage is too low for the set current)           |                |
| Operating conditions                             |   |                |
| Operating temperature                            | 5 ... 40 °C   |                |
| Stock temperature                                | -25 ... 65 °C   |                |
| Max. operating height                            | 2000 m above sea level  |                |
| Pollution degree                                 | 2   |                |
| Max. humidity                                    | 80 % at 31 °C, linear decreasing to 50 % at 40 °C   |                |
| Min. distance rear panel - wall or other objects | 70 cm   |                |
| Cooling  | temperature-controlled air cooling  |                |
| Noise  | see model overview  |                |
| Supply voltage (mains) with Option PLA18o        | 85 ... 264 V AC, 50 ... 60 Hz<br>10 ... 18 V DC   |                |
| Power consumption                                | see model overview  |                |

The specified accuracies refer to an ambient temperature of 23 ±5 °C. The specified accuracies are valid when the unit is connected to undisturbed voltages (ripple and noise < 0.1 %). At voltages with higher disturbance values the accuracy can change for the worse.

<sup>1)</sup> positive/negative DC voltage or RMS value of a sinusoidal AC voltage

## Technical Data (continued)

| Terminals  |  |
|--|--|
| Load input   | see model overview   |
| Sense  | at I/O port, only at models up to 120 V                                |
| Housing  |  |
| Color<br>Front and rear panel<br>Side panels and top | RAL7032 (pebble grey)<br>RAL7037 (dusty grey)                          |
| Dimensions, weight                                   | see model overview   |
| Safety and EMC                                       |  |
| Protection class                                     | 1  |
| Protection   | IP20   |
| Measuring category                                   | 0 (CAT I according to EN 61010:2004)                                   |
| Electrical safety                                    | DIN EN 61010-1<br>DIN EN 61010-2-030                                   |
| EMV, CE marking                                      | DIN EN 55011<br>DIN EN 61326-1<br>DIN EN 61000-3-2<br>DIN EN 61000-3-3 |
| Calibration, warranty                                |  |
| FCC-PLAxx  | Factory Calibration Certificate, twice free of charge                  |
| Warranty   | 2 years  |