# **Datasheet Series PLI**

| Model   | PLI11  | 260EC   |                         |
|---|--------|---------|-------------------------|
| Order no.   | 17-049 | -001-02 |                         |
| Max. input voltage Vmax                                     |        |         | 600 V                   |
| Min. input voltage Vmin                                     |        |         | 5 V                     |
| Max. load current Imax                                      |        |         | 416 A                   |
| Continuous power  |        |         | 11200 W                 |
| Short-time power <sup>1)</sup>                              |        |         | 11200 W                 |
| Voltage setting   |        |         | 0 600 V                 |
| Current setting   |        |         | 0 416 A                 |
| Resistance setting  |        |         | 0.01202 Ohm 15.5097 Ohm |
| Power setting <sup>2)</sup>                                 |        |         | 0 11200 W               |
| Rise and fall time fast / medium / slow $^{3^{\mathrm{j}}}$ |        |         | 30 µs                   |
| Load terminals (front) <sup>4)</sup>                        |        |         |                         |
| Load terminals (rear) $^{5)}$                               |        |         | FKS25/8-SM10            |
| Power consumption   |        |         | 500 VA                  |
| Max. noise <sup>6)</sup>                                    |        |         | 76 dB(A)                |
| Weight ca.  |        |         | 82 kg                   |
| Housing <sup>7)</sup>                                       |        |         | 19" - 11 HU             |

1. Level and duration of the peak power, see diagram on page 2.

2. The setting range extends max. to the possible peak 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 "medium": ca. 500 µs, "slow": ca. 5 ms.
- PK4-30: Pole terminal touch-protected for 4 mm laboratory jack + stripped wires, max. 30 Å PK4-60: Pole terminal touch-protected for 4 mm laboratory jack + stripped wires, max. 60 Å. FK8: Flat copper rail 8x5 mm with M8 screw FK25: Flat copper rail 25x10 mm with M10 screw

FK40: Flat copper rail 40x12 mm with 4 mm hole and M14 screw

- PK4-30: Pole terminal touch-protected for 4 mm laboratory jack + stripped wires, max. 30 A PK4-60: Pole terminal touch-protected for 4 mm laboratory jack + stripped wires, max. 60 A. FK8: Flat copper rail 8x5 mm with M8 screw FK25: Flat copper rail 25x10 mm with M10 screw
- FK40: Flat copper rail 40x12 mm with 4 mm hole and M14 screw
- 6. Measured on the front from distance of 1 m
- 7. 1 HU = 44.45 mm

Höcherl & Hackl The electronic load

# **PLI Series**

### **Technical Data**

| Accuracy of setting  |  |                         |
|--|--|-------------------------|
|  | of setting                             | of corresponding range  |
| Voltage  | ±0.2 %                                 | ±0.05 %                 |
| Current  | ±0.2 %                                 | ±0.05 %                 |
| Resistance<br>(t 5 % to 100 % of<br>voltage range)                         | ±1.4 %                                 | ±0.3 % of current range |
| Power<br>(at V and I > 30 %<br>of range)<br>(at V or I < 30 % of<br>range) | ±0.35 %<br>±0.7 %                      | ±0.1 %<br>±0.25 %       |
| Resolution   | 14 bits                                |                         |
| Accuracy of adjustable   |  |                         |
| Accuracy of aujustable   | of setting                             | of corresponding range  |
|  | or setting                             |                         |
| Overcurrent pro-<br>tection  | ±1.4 %                                 | ±0.3 %                  |
| Undervoltage<br>protection   | ±1.4 %                                 | ±0.3 %                  |
| Resolution   | 12 bits                                |                         |
| Accuracy of display/m  | easurement slow                        |                         |
|  | of measured value (real value)         | of corresponding range  |
| Voltage  | ±0.01 %                                | ±0.005 %                |
| Current  | ±0.2 %                                 | ±0.05 %                 |
| Resistance   | is calculated from current and voltage |                         |
| Power  | is calculated from current a           | nd voltage              |
| Resolution   | 23 bits                                |                         |
| Sampling rate  | 250 ms, not triggerable                |                         |
| Accuracy of measurer   | nent fast                              |                         |
| ,  | of measured value (real value)         | of corresponding range  |
| Voltage  | ±0.1 %                                 | ±0.05 %                 |
| Current  | ±0.2 %                                 | ±0.1 %                  |
| Resistance   | calculated from voltage and            |                         |
| Power  | calculated from voltage and            |                         |
| Resolution   | 16 Bit                                 |                         |
| Sampling rate  | 200 µs 1000 s                          |                         |
|  |  |                         |
| ,  | Itage and current measurement          |                         |
| Voltage  | ±1 % of range                          |                         |
| Current  | ±1 % of range                          |                         |
| Dynamic function (LIS  |  |                         |
| No. of load levels   | max. 300, ith ramp and dwe             |                         |
|  | min.                                   | max.                    |
| Dwell time   | 200 µs                                 | 1000 s                  |
| Ramp time  | 0 s                                    | 1000 s                  |
| Resolution   | 200 µs                                 |                         |
| Accuracy of the setting times  | ±0.02 %                                |                         |
| Delay at triggered<br>start  | max. 300 µs                            |                         |

| Data acquisition               |   |  |
|--------------------------------|---|--|
| to external USB flash d        |   |  |
| Sampling rate                  | 0.5 to 30 s, resolution 0   | .1 s   |
| Measurement data               | timestamp, voltage, cu  | rent   |
| No. of measure-<br>ment points | limited by USB memory   | / capacity                                   |
| File format                    | .CSV  |  |
| to internal memory             |   |  |
| Sampling rate                  | 200 µs 1000 s, resolu<br>dynamic function   | tion 200 µs, synchronized with               |
| Measurement data               | timestamp, voltage, cu  | rent   |
| No. of measure-<br>ment points | max. 40,000   |  |
| Settings memories              |   |  |
| No. of user settings           |   | rammed list)<br>s at power-off or power fail |
| I/O port: accuracy of          | analog control 0 10 V   |  |
|                                | of setting  | of corresponding range                       |
| Voltage                        | ±0.2 %  | ±0.1 %                                       |
| Current                        | ±0.2 %  | ±0.1 %                                       |
| Overcurrent<br>protection      | ±1 %  | ±0.4 %                                       |
| Undervoltage<br>protection     | ±1 %  | ±0.4 %                                       |
|                                | Input resistance of ana   | log inputs >10 kΩ                            |
| I/O port: accuracy of          | analog monitor outputs 0  | . 10 V                                       |
|                                | of analog signal of real<br>value   | offset voltage                               |
| Voltage                        | ±0.2 %  | ±15 mV                                       |
| Current                        | ±0.2 %  | ±15 mV                                       |
|                                | load capacity minimal 2   | 2 kΩ   |
| I/O port: permissible          | potentials  |  |
|                                | standard I/O port   | isolated I/O port (option PLIO6)             |
| GND - neg. load<br>input       | max. 2 V <sup>1)</sup>  | max. 800 V <sup>1)</sup>                     |
| GND - PE                       | max. 125 V <sup>1)</sup>  | max. 125 V <sup>1)</sup>                     |
| I/O port: control outp         | outs and inputs   |  |
| Outputs                        | status load input (on/of<br>overload (OV, OCP, OPP,<br>trigger output<br>programmable output (                                | OTP)   |
| Output level                   | selectable, 3.3 V, 5 V, 12<br>to 30 V   | V or externally programmable up              |
| Control inputs                 | load input on/off<br>operating mode selecti<br>trigger input<br>digital input<br>control input (activates<br>Remote shut-down | on<br>analog control signals)                |
|                                |   |  |

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)

| Input   |   |   |
|---|---|---|
| Input resistance                                    | <ul> <li>&gt; 50 kΩ when load input is<br/>diode function at reverse</li> </ul> | s off<br>polarity up to nominal current |
| Input capacity                                      | ca. 2 µF/600 W  |   |
| Parallel operation                                  | up to 5 devices in Master-  | Slave operation                         |
| Max. input voltage<br>Vmax                          | see model overview  |   |
| Min. input voltage<br>Vmin for max.<br>current Imax | models up to 120 V:<br>1.2 V<br>models from 300 V: 2 V<br>PLIxxxxEC: 5 V        | I Imax<br>Vmin V                        |

#### Input: permissible potentials

| input, permissible poten                  | וומנס   |   |
|---|---|---|
|   | standard I/O port   | isolated I/O port (option PLIO6)                    |
| neg. load input - PE                      | max. 125 V <sup>1)</sup>  | max. 800 V <sup>1)</sup>                            |
| Power                                     |   |   |
| Continuous power                          | see model overview (at Ta = 2   | 1 °C)   |
| Derating                                  | -1,2 %/°C for Ta > 21 °C  |   |
| Overload capability<br>(short-time power) | see model overview<br>The max. possible overload P<br>re of the device and therefore<br>continuous power Pd. The pos<br>depends on the value of the o | on the previously consumed ssible overload duration |
| 100%<br>P<br>0%<br>P                      | Po<br>100%<br>50%<br>10%<br>0%<br>0%  | Pnom<br>Pnom<br>time(s)                             |
| Protection and monitorin                  | g   |   |
| Protective devices                        | overcurrent<br>overpower<br>overtemperature   |   |
| Monitoring                                | overvoltage indication<br>reverse polarity indication<br>undervoltage indication (if the<br>the set current)  | e input voltage is too low for                      |
| Terminals                                 |   |   |
| Load input                                | see model overview  |   |
| Sense                                     | PH2/7.62-BU16, see starting   | at page 101   |
|   |   |   |

| 0.000   | E (0.00   |
|---|---|
| Operating<br>temperature  | 5 40 °C   |
| Stock<br>temperature  | -25 65 °C   |
| Max. operating height   | 2,000 m above sea level   |
| Pollution degree  | 2   |
| Overvoltage<br>category of mains  | Ш   |
| Max. humidity   | 80 % at 31 °C, linear decreasing to 50 % at 40 °C               |
| Min. distance rear<br>panel - wall or other<br>objects  | 70 cm   |
| Cooling   | temperature-controlled air cooling                              |
| Noise. weight   | see model overview  |
| Supply voltage<br>(mains))  | 115/230 V AC (±10 %), selectable, 50 60 Hz                      |
| with option PLI18   | 11 15 V DC  |
| Power consumption   | see model overview  |
|   |   |
| Housing   |   |
|   | RAL7035 (light grey)<br>stainless steel<br>RAL7037 (dusty grey) |
| Housing<br>Color<br>Front<br>Rear   | stainless steel   |
| Housing<br>Color<br>Front<br>Rear<br>Top, side panels   | stainless steel   |
| Housing<br>Color<br>Front<br>Rear<br>Top, side panels<br>Safety and EMC                                   | stainless steel<br>RAL7037 (dusty grey)                         |
| Housing<br>Color<br>Front<br>Rear<br>Top, side panels<br>Safety and EMC<br>Protection class               | stainless steel<br>RAL7037 (dusty grey)                         |
| Housing<br>Color<br>Front<br>Rear<br>Top, side panels<br>Safety and EMC<br>Protection class<br>Protection | stainless steel<br>RAL7037 (dusty grey)<br>1<br>IP20            |

Factory Calibration Certificate, twice for free

2 years

FCC-PLIxx

Warranty