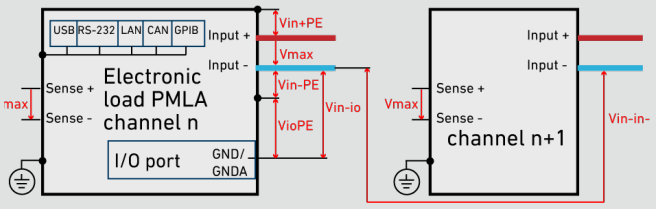
Number of channels		
Channels per device	max. 12 [1]	
Channels per system	max. 72 [1]	
Operating modes		
Basic operating modes	CC, CP, CR, CV	
Combined operating modes	CC+CV, CP+CV, CR+CV, CP+CC, CR+CC, CV+CC	
Accuracy of setting		
	of setting	of corresponding range
Voltage	±0.1 %	±0.1 %
Current	40 V/60 V modules ±0.25% others ±0.1 %	±0.1 %
Resistance (at 5 % to 100 % of voltage range)	40 V/60 V modules ±2.8 % others ±1.4 %	±0.3 % of current range
Power (at V and I > 10 % of range) (at V or I 5 ... 10 % of range)	40 V/60 V modules ±1.4 % others ±0.7 % 40 V/60 V modules ±4 % others ±2 %	
Resolution	12 bits	
Accuracy of adjustable protections		
	of setting	of corresponding range
Overcurrent protection	40 V/60 V modules ±0.4% others ±0.2 %	±0.2 %
Undervoltge protection	±0.2 %	±0.2 %
Resolution	12 bits	
Accuracy of measurement		
	of measured value (real value)	of corresponding range
Voltage	±0.1 %	±0.05 %
Current	40 V/60 V modules ±0.4 % others ±0.2 %	±0.05 %
Resistance	calculated from voltage and current	
Power	calculated from voltage and current	
Resolution	16 bits	
Sampling time	100 µs, not triggerable	
Accuracy of display (user interface)		
Display user interface	Accuracy of corresponding measurement ±1 digit of displayed value	
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 %	
Delay time at triggered start	max. 200 µs	
Data acquisition		
	of measured (actual) value	of corresponding range
Accuracy voltage	±0.1 %	±0.05 % ±1 LSB
Accuracy current	40 V/60 V modules ±0.4 % others ±0.2 %	±0.05 % ±1 LSB
Resolution	16 bits	

	to internal memory
Sampling time	1 ms ... 100 s, resolution 1 ms
Measurement data	timestamp, voltage, current
No. of measurement points	max. 100 per channel
Settings memory	
No. of user settings	10, selectable (incl. programmed list)

I/O port: Accuracy analog control 0 ... 10 V		
	of setting	of corresponding range
Voltage	±0.2 %	±0.1 %
Current	40 V/60 V modules ±0.4 % others ±0.2 %	±0.1 %
	Input resistance of analog inputs >10 kΩ GND max. 2 V [2] with respect to negative load input	

I/O port: control inputs		
Control input	load input state on - off (per channel, low active)	
Input level	3 ... 30 V	
I/O port: Accuracy of analog monitor signals 0 ... 10 V		
	of analog signal of real value	offset voltage
Voltage	±0.1 %	±15 mV
Current	40 V/60 V modules ±0.4 % others ±0.2 %	±15 mV
	Maximum load capacity 2 kΩ	
I/O port: permissible voltages		
Vin-io (GND - neg. load input)	max. 2 V [2]	
VioPE (GND - PE)	max. 100 V [2]	



Input	
Input resistance	>50 kΩ when load input is off diode function at reverse polarity up to nominal current
Input capacity	see module overview
Parallel operation	up to 5 channels in Master-Slave operation (hardware-controlled)
Maximum input voltage Vmax	see module overview
Minimum input voltage Vmin	see module overview
Continuous power	see module overview (at Ta = 21 °C)
Derating	-1,2 %/°C for Ta > 21 °C
Input: permissible voltages	
Vin-PE (neg. load input - PE)	max. 100 V [2]
Vin+PE (pos. load input - PE)	Vmax + Vin-PE, but not more than 240 V [2]
Vin-in- (neg. load inputs between two channels)	max. 100 V [2]
Protection and monitoring	
Protective devices	overcurrent overpower overtemperature
Monitoring	overvoltage undervoltage (if the input voltage is too low for the set current) reverse polarity

The specified accuracies refer to an ambient temperature of 23 ±5 °C. The specified accuracies are valid when the sense lines are connected and 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.

1. with all modules of 150 W
2. positive/negative DC voltage or RMS value of a sinusoidal AC voltage

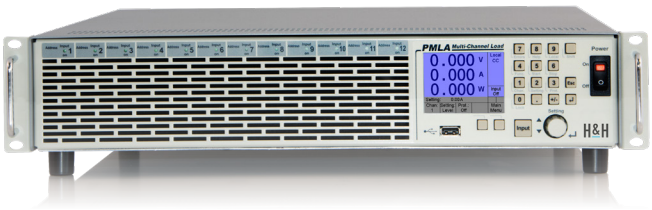
Technical Data

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	max. ca. 69 dB(A) measured in distance of 1 m
Mains voltage	1/N/PE AC 80 ... 264 V ±10 % 47 ... 63 Hz
Mains cable	length max. 3 m cross-section of mains leads min. 1 mm²
Power consumption	max. 90 VA

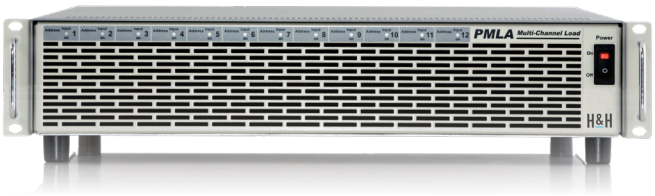
Terminals	
Load input	Phoenix Contact PH8/7.62-ST43
Sense	Sub-D at I/O port
Housing	
Color Front Rear Side panels, top	 RAL7035 (light grey) stainless steel RAL7037 (dusty grey)
Housing Dimensions (B x H x T) 3D models [1]	19", 2 U 485 x 88 x 485 mm (with mating connector, without feet) PMLA_M1 Master, PMLA_M10 Slave
Weight	max. 18.3 kg

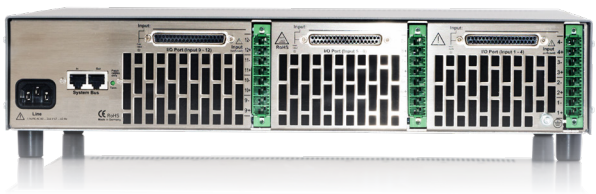
Safety and EMC	
Protection class	1
Measuring category	O (CAT I according to EN 61010:2004)
Electrical safety	DIN EN 61010-1 DIN EN 61010-2-030
EMC	DIN EN 55011 DIN EN 61326-1 DIN EN 61000-3-2 DIN EN 61000-3-3
Standard interfaces	
Data interfaces	RS-232, USB, LAN (each only for Master)
I/O port	standard I/O port (not isolated)
Available options	
Data interfaces PMLA02 PMLA03	 GPIB (only for Master) CAN (only for Master)
Hardware exten-sions PMLA15	 extra mating plug for 1x cooling unit
Calibration, warranty	
FCC-PMLA/CH	Factory Calibration Certificate, 2 x for free
Warranty	2 years

PMLA-M Master



PMLA-S Slave





1. 1 U = 44.45 mm. Detailed dimensions by means of 3D models at www.hoecherl-hackl.com/downloads.

Technical data of production series C, rev. 6. Subject to technical changes without notice.
Series-specific data from catalog rev. 6.01