## **Datasheet Series PLA**



Model	PLA212C2	Power State	
Order no.	22-002-001-01	Supplied to Function Supplied to Supplied	
Max. input voltage Vmax		120 V	
Min. input voltage Vmin		1.2 V	
Max. load current Imax		2 A	
Continuous power		200 W	
Short-time power 1)		240 W	
Voltage setting		0 120 V	
Current setting		0 2 A	
Resistance setting		1 Ohm 2000 Ohm	
Power setting <sup>2)</sup>		0 240 W	
Rise and fall time fast / medium / slow $^{\mathrm{3}\mathrm{)}}$		50 μs	
Load terminals (front) <sup>4)</sup>		SBU4-32	
Load terminals (rear) <sup>5)</sup>		SBU4-32	
Power consumption		30 VA	
Max. noise <sup>6)</sup>		49 dB(A)	
Weight ca.		2.85 kg	
Housing <sup>7)</sup>		½ 19" - 1 HU	

- 1. Level and duration of the peak power depend on the previous power.
- $2. \quad \text{The setting range extends max. to the possible shorttime power.} \\$
- 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  $\mbox{A}$
  - 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  $\mbox{m}$
- $7. \quad \text{Device height incl. equipment feet. Maximum width and depth incl. handle. Installation depth without connection cable. 1 HU = 44.45 \, \text{mm}$

## PLA Series Technical Data

Accuracy of setting				
	of setting value	of corresponding range		
Voltage	±0.1 %	±0.05 %		
Current	±0.2 %	±0.05 %		
Resistance (at 5 % to 100 % of voltage range)	±1.4 %	±0.3 % of current range		
Power (at V and I > 10 % of range)	±0.7 %			
(at V or I 5 10 % of range)	±2 %			
Resolution	12 Bit			
Accuracy of adjustabl	protections			
	of setting value	of corresponding range		
Overcurrent protection	±0.5 %	±0.05 %		
Undervoltage protection	±0.3 %	±0.02 %		
Resolution	12 Bit			
Accuracy of measurer	uracy 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 inter- face	accuracy of each measurement, ±1 digit of the display value			
Resolution	see display resolution page 22			
Dynamic function (LIS	Τ)			
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 measu- rement points	max. 100			
Settings memories				
Number of user settings	10, selectable (incl. programmed list)			
Accuracy of analog co				
	of the setting value	of the corresponding range		
Voltage	±0.2 %	±0.05 %		
Current	±0.2 %	±0.05 %		
	input resistance of analog inputs >10 k $\Omega$			
	GND max. 2 V <sup>1)</sup> with respect	t to negative load input		

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

I/O port outputs and inpu	ıts				
Status and control outputs	Status load input (on/off) overload (OV, OCP, OPP, OTP)				
Output level	5 V				
Control inputs	load input (on/off) control input (activates I/O port)				
Input level	3 30 V				
Accuracy of analog moni	tor outputs 0 10 V				
	of analog signal	offset voltage			
	of real value				
Voltage	±0.1 %	±15 mV			
Current	±0.2 %	±15 mV			
	minimum load 2 k $\Omega$ GND max. 2 V $^{1)}$ with respect to negative load input				
Input					
Input resistance	$>\!50~\text{k}\Omega$ when load input is off diode function at reverse polarity up to nominal current				
Input capacity	max. 3 μF				
Parallel operation	up to 5 devices in Master-Slave operation (hardware-controlled)				
Maximum input voltage Vmax	see model overview				
Minimum input					
voltage Vmin	lŢ	lmax			
		Vmin V			
Permissible potential negative load input - PE: 125 V 1)					
Power	····g-···-	) V			
	see model overview (at Ta =				
Power	-				
Power Continuous power	see model overview (at Ta =	21 °C)  ver depends on the tempe-			
Power Continuous power Derating	see model overview (at Ta = -1.2 %/°C für Tu > 21 °C see model overview The possible short-time pow rature of the device and with taken before.	21 °C)  ver depends on the tempe-			
Power Continuous power Derating Overload capacity	see model overview (at Ta = -1.2 %/°C für Tu > 21 °C see model overview The possible short-time pow rature of the device and with taken before.	21 °C)  ver depends on the tempe-			
Power Continuous power Derating Overload capacity  Protection and monitoring	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time pow rature of the device and with taken before.  g  overcurrent overpower	21 °C)  ver depends on the tempe-			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices	see model overview (at Ta = -1.2 %/°C für Tu > 21 °C see model overview The possible short-time pow rature of the device and with taken before.  g overcurrent overpower overtemperature	21 °C)  ver depends on the tempe-			
Power Continuous power Derating Overload capacity  Protection and monitoring	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g  overcurrent overpower overtemperature  overvoltage indication reverse polarity indication	21 °C) ver depends on the tempe- n that on the normal rating			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time pow rature of the device and with taken before.  19  overcurrent overpower overtemperature  overvoltage indication reverse polarity indication undervoltage display (if the	21 °C)  ver depends on the tempe-			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g  overcurrent overpower overtemperature  overvoltage indication reverse polarity indication	21 °C) ver depends on the tempe- n that on the normal rating			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time pow rature of the device and with taken before.  19  overcurrent overpower overtemperature  overvoltage indication reverse polarity indication undervoltage display (if the	21 °C) ver depends on the tempe- n that on the normal rating			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring  Operating conditions Operating	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g  overcurrent overpower overtemperature overvoltage indication reverse polarity indication undervoltage display (if the iset current)	21 °C)  ver depends on the tempe- n that on the normal rating			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring  Operating conditions Operating temperature	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g  overcurrent overpower overtemperature  overvoltage indication reverse polarity indication undervoltage display (if the iset current)  5 40 °C	21 °C)  ver depends on the tempe- n that on the normal rating			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring  Operating conditions Operating temperature Stock temperature	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g overcurrent overpower overtemperature overvoltage indication reverse polarity indication undervoltage display (if the isset current)  5 40 °C  -25 65 °C	21 °C) ver depends on the tempe- n that on the normal rating			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring  Operating conditions Operating temperature Stock temperature Max. operating height	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g  overcurrent overpower overtemperature overvoltage indication reverse polarity indication undervoltage display (if the iset current)  5 40 °C  -25 65 °C  2000 m above sea level	21 °C)  ver depends on the tempenthat on the normal rating			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring  Operating conditions Operating temperature Stock temperature Max. operating height Pollution degree	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g  overcurrent overpower overtemperature overvoltage indication reverse polarity indication undervoltage display (if the isset current)  5 40 °C  -25 65 °C  2000 m above sea level	21 °C)  ver depends on the tempenthat on the normal rating			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring  Operating conditions Operating temperature Max. operating height Pollution degree Max. humidity Min. distance rear panel - wall or other	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g  overcurrent overpower overtemperature  overvoltage indication reverse polarity indication undervoltage display (if the isset current)  5 40 °C  -25 65 °C  2000 m above sea level 2  80 % at 31 °C, linear decrease	21 °C)  ver depends on the tempenthat on the normal rating  input voltage is too low for the			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring  Operating conditions Operating temperature Max. operating height Pollution degree Max. humidity Min. distance rear panel - wall or other objects	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g overcurrent overpower overtemperature overvoltage indication reverse polarity indication undervoltage display (if the iset current)  5 40 °C  -25 65 °C  2000 m above sea level 2  80 % at 31 °C, linear decrease 70 cm	21 °C)  ver depends on the tempenthat on the normal rating  input voltage is too low for the			
Power Continuous power Derating Overload capacity  Protection and monitorin Protective devices  Monitoring  Operating conditions Operating temperature Max. operating height Pollution degree Max. humidity Min. distance rear panel - wall or other objects Cooling Noise Supply voltage (mains)	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g overcurrent overpower overtemperature overvoltage indication reverse polarity indication undervoltage display (if the isset current)  5 40 °C  -25 65 °C  2000 m above sea level 2  80 % at 31 °C, linear decreas 70 cm  temperature-controlled air of see model overview  85 264 V AC, 50 60 Hz	21 °C)  ver depends on the tempenthat on the normal rating  input voltage is too low for the			
Power Continuous power Derating Overload capacity  Protection and monitoring Protective devices  Monitoring  Operating conditions Operating temperature Max. operating height Pollution degree Max. humidity Min. distance rear panel - wall or other objects Cooling Noise Supply voltage	see model overview (at Ta =  -1.2 %/°C für Tu > 21 °C  see model overview The possible short-time powrature of the device and with taken before.  g overcurrent overpower overtemperature overvoltage indication reverse polarity indication undervoltage display (if the isset current)  5 40 °C  -25 65 °C  2000 m above sea level 2  80 % at 31 °C, linear decrease 70 cm  temperature-controlled air of see model overview	21 °C)  ver depends on the tempenthat on the normal rating  input voltage is too low for the			

## Technical Data (continued)

see model overview	
at I/O port, only at models up to 120 V	
RAL7032 (pebble grey) RAL7037 (dusty grey)	
see model overview	
ty and EMC	
1	
IP20	
0 (CAT I according to EN 61010:2004)	
DIN EN 61010-1 DIN EN 61010-2-030	
DIN EN 55011 DIN EN 61326-1 DIN EN 61000-3-2 DIN EN 61000-3-3	
Factory Calibration Certificate, twice free of charge	
2 years	