



### Features:

- Switched mode power supply
- Wide output range 0-144VDC
- Analog control by an external 0-5VDC
- Power failure alarm output
- Master-slave connection

The PF800-PS series are high power, lightweight, advanced power supply series using modern switching technology. All units can be used as a power supply or constant voltage battery charger. The output voltage and output current can be adjusted from 0 to maximum value by a trimmer on the front panel, or by an optional 0-5V analog control.

Specifications			
Input voltage	55...250VAC (55...200VAC reduced power, see curve p. 3)		
Input current	4,5 A		
Power factor	>0,98		
Efficiency (240VAC, 10%-100% load)	85...90%		
Inrush current	<30A, limited by an NTC resistor		
Input fuse (inside the unit)	6,3A		
Line regulation	±0.1%		
Load regulation	±0.5%		
Output setting accuracy	±0.1%		
Output ripple (f>50Hz)	<50 mVrms		
Hold-up time	> 5 ms		
Status LED indicator Orange	power OK		
Isolation	input-chassis	1500 VAC	
	input-output	3750 VAC	
	output-chassis	500 VAC	
Standards	safety	EN 60950-1:2001	
	EMC	EN 55022B	
Approvals	All models CE marked CB certificate with U.S. deviations 24V, 36V and 48V versions.		
Protection class	mechanical	IP20 metal enclosure	
	electrical	Class 1	
Dimensions	w x h x d	220 x 112 x 73 mm	
Weight	1,55 kg		
Mounting	DIN-rail, wall, bench		
Connectors	input	power chord 1,5m	
	output	24 V – 96 V models	6 mm <sup>2</sup> screw terminals
		12 V models	2 m output cables 2 m 10 mm <sup>2</sup> cable
Cooling	Temperature controlled fan		
Operating temp range	0°C - +40°C		

## Power supply models

Trimmer adjustable power supplies							
Model	Input voltage range**	Nominal output voltage	Voltage setting range	Nominal output current	Current setting range	Maximum power	Installation/dimensions (width x height x depth)
PF800-PS12 / PF800-PS12AI*	55-250VAC	12VDC	0-18VDC	50A	0-50A	700W	wall / bench 220x112x73
PF800-PS24 / PF800-PS24AI*	55-250VAC	24VDC	0-36VDC	30A	0-30A	800W	wall / bench 220x112x73
PF800-PS36 / PF800-PS36AI*	55-250VAC	36VDC	0-54VDC	20A	0-20A	800W	wall / bench 220x112x73
PF800-PS48 / PF800-PS48AI*	55-250VAC	48VDC	0-72VDC	15A	0-15A	800W	wall / bench 220x112x73
PF800-PS72 / PF800-PS72AI*	55-250VAC	72VDC	0-108VDC	10A	0-10A	800W	wall / bench 220x112x73
PF800-PS96 / PF800-PS96AI*	55-250VAC	96VDC	0-144VDC	7,5A	0-7,5A	800W	wall / bench 220x112x73

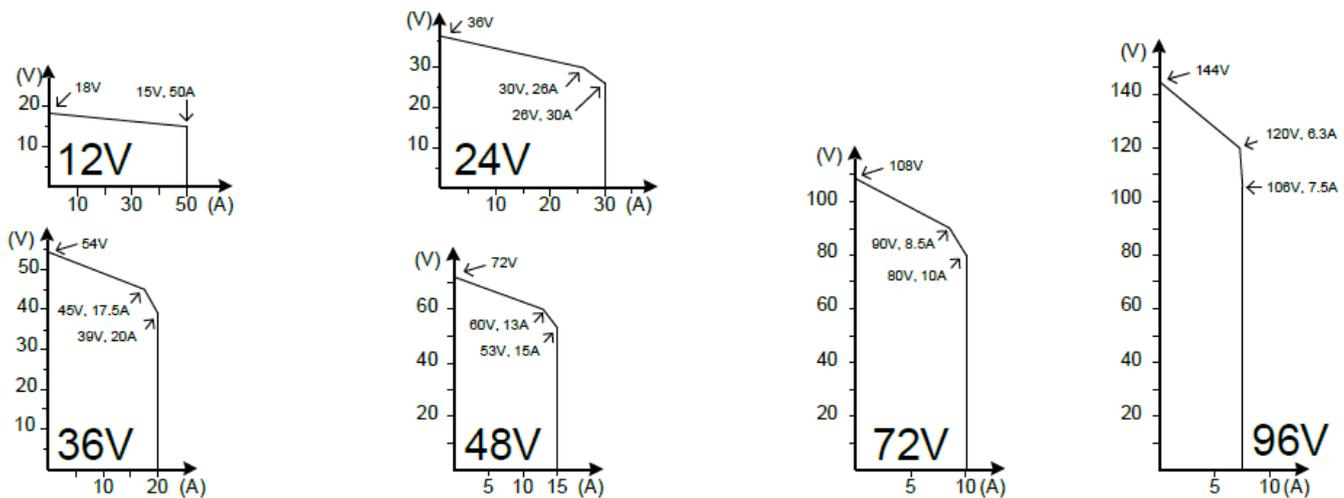
\* Cable sets with modular connectors are included: 1,5 m cable for analog control.

\*\*Reduced power 55-200VAC, see curves.

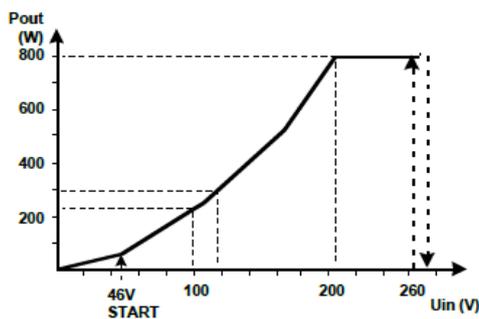
### Customized versions on request

- Cyclic battery chargers or customized charging curves for all kind of batteries
- Sense models
- IP44 enclosures, 19" enclosures

## Characteristics



Nominal output current / voltage characteristics PF800-PS.



### Output voltage and current limit adjustment

Trimmer or analog control adjustable modules, type example PF800-PS24 or PF800-PS24-AI:

The output voltage and output current limit of the power supply can be adjusted as follows:

- Trimmer adjustable models: with the multi-turn potentiometers accessible from the front panel.
- Analog controllable models by an external 0-5VDC voltage. See detailed description

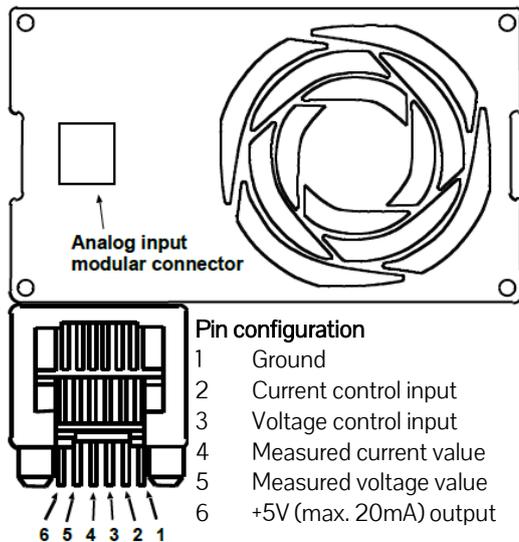
Both voltage and current can be adjusted from zero to the maximum value. Maximum 800W output power is available within the adjustment range.

### LED

An orange LED indicates a healthy power supply output voltage.

### Overcurrent protection

The output of the power supply is protected against overcurrents and short circuits by an automatic, self-resetting electronic current limiter.



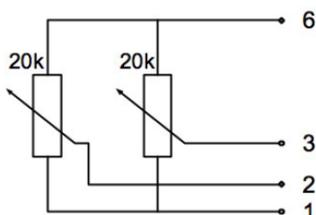
### Controlling the analog card

All control voltages must be between 0 and +5V, Higher voltages are not allowed. The control logic is positive, so that a +5V control voltage gives a maximum value from the power supply, while 0V means minimum output. As soon the control connector is unplugged from the modular connector, the power supply is reset to the minimum output values.

The measured values can be read from the measurement signals. The measured values are scaled equal to the target values. If the power supply is set to the voltage reference, the measured value must be equal to the target. The same counts for the current control and its measured value. Measured signals (both together) can be loaded with max 20mA; otherwise proper operation cannot be guaranteed.

The modular connector is isolated from the input, output and enclosure of the power supply. This enables the possibility to parallel or series connect several power supplies maintaining equal voltages. The number of connected devices is not limited. The 500V insulation voltage may, however, not be exceeded. This manual cannot be applied in case the connector of the analog card differs from a modular connector (9-pin D-connector).

Pin configuration of the modular connector. The analog control card is connected via an AMP Modular 6 connector.



Connecting example using the internal +5Vdc supply and external potentiometers.

The +5V can be used as a supply for external circuits. The circuit given to the left, lets the power supply operate as a potentiometer controlled device. It is important to keep in mind that the +5V output may not be loaded more than 20mA, otherwise proper operation cannot be guaranteed.