



# Plating Rectifiers / DC Power Supplies PULSE-REVERSE-Power Supplies

2015/2016



plating electronic  
we care for power



## plating electronic – A FAMILY-RUN COMPANY AND A WORLD LEADER FOR DECADES



Karl Rieder  
General Manager  
plating electronic GmbH

- Technology leader in DC and Pulse power supplies
- Main concentration on individual customer solutions
- Meets the highest quality demands
- MADE IN GERMANY for global markets

## SWITCH-MODE TECHNOLOGY

With the use of efficient, high-frequency technology, switch-mode power supplies offer many advantages over conventional rectifiers based on output adjustment by motor control or thyristor technology. Switch-mode technology is a reliable, globally recognized and robust technology and is ideally suited for use in electroplating and industrial applications. The air or water-cooled DC and Pulse power supplies can also be easily integrated into a control system.

## DIGITAL CONTROL (DSP CONTROLLED)

We utilize the most up to date technology and employ digital controls in our power supplies. Our devices are characterized by excellent control accuracy and extremely low ripple.

Quick and easy connection to control units or to current BUS interfaces is another advantage of the digital technology.

<b>Regulation inaccuracy &lt; 1% <sup>(1)</sup></b>	Better quality thanks to enhanced process sequence reproducibility. Constant current and voltage regulation.
<b>Ripple &lt; 1% <sup>(1)</sup></b>	Qualitative benefits in many plating processes.
<b>Compact design</b>	Low space requirement and therefore low power losses, because installation is possible directly at the treatment baths.
<b>Power factor up to 0,99 <sup>(2)</sup></b>	Energy cost savings thanks to improved grid quality and reduced reactive power component.
<b>Efficiency up to 92%</b>	Low energy consumption leading to operating costs savings.
<b>Parallel or series connection</b>	More flexibility thanks to easy multiplication of the performance range, in parallel or series.

<sup>1</sup> For control range from 1%–100% and related to rated DC value.

<sup>2</sup> Related to rated DC value



# Air and Water Cooled Rectifiers

## Bench Top Rectifiers - POWER STATION up to 12 kW

Air cooled



**pe1018-2-SNT**  
up to 200 W  
up to 12 A  
up to 30 V



**pe1028**  
up to 750 W  
up to 60 A  
up to 250 V



**pe4383**  
up to 6 kW  
up to 300 A  
up to 600 V



**pe1058**  
up to 12 kW  
up to 600 A  
up to 600 V

## DC Rectifiers - POWER STATION up to 42 kW

Air cooled



**pe3100-1**  
up to 500 W  
up to 50 A  
up to 30 V



**pe4606**  
up to 6 kW  
up to 300 A  
up to 600 V



**pe4606-2**  
up to 12 kW  
up to 600 A  
up to 600 V



**pe4606-3**  
up to 24 kW  
up to 1200 A  
up to 600 V



**pe3000 series**  
up to 42 kW  
up to 3000 A  
up to 1000 V

## DC Rectifiers - POWER STATION up to 40 kW

Water cooled



**pe4606-W**  
up to 2.5 kW  
up to 200 A  
up to 50 V



**pe4203-W**  
up to 20 kW  
up to 1000 A  
up to 1000 V



**pe4206-W**  
up to 40 kW  
up to 2000 A  
up to 1000 V

*Are you interested in an easy and flexible solution to install our DC rectifiers? Contact us for further details on our VERSA POWER System – the ideal and flexible solution for compact and space optimized installation of your rectifiers.*



## CABINET RECTIFIERS

Air cooled

Water cooled



**pe5110**  
up to 80 kW  
up to 5000 A  
up to 1000 V



**pe5410-W**  
up to 110 kW  
up to 5000 A  
up to 1000 V



**pe5710-W**  
up to 132 kW  
up to 7200 A  
up to 1000 V



**pe5910-W**  
up to 200 kW  
up to 10.000 A  
up to 1000 V

Performance can be individually increased by parallel- or serial connection.

## CONTROL UNITS



**pe280**  
programmable control unit



**pe280**  
programmable control unit,  
flush panel mount control unit



**pe8750**  
programmable control unit, 10"  
colour touch panel, network-capable, storable processes

## pe900 series CONTROL SYSTEMS



### Fieldbus interfaces

CANopen  
CC-Link  
ControlNet  
DeviceNet  
Modbus-RTU  
Profibus-DP  
RS485

### Ethernet version

EtherCAT  
EtherNet/IP  
Modbus-TCP  
Profinet IO  
Profinet IRT

Additional accessory, as for example Pole changer, Digital/Analogue Converter, PC Software, Isolation Amplifier complete our manufacturing range. Please contact us for individual data-sheets.



# PULSE-REVERSE power supplies

## PULSE-REVERSE power supplies POWER PULSE

Air cooled



### pe86CB series

Output power: max. 540 W  
 Effective and DC current: max. 30 A  
 Pulse current: max. 90 A  
 Effective voltage: max. 60 V



### pe861 series

Output power: max. 6.36 kW  
 Effective and DC current: max. 318 A (2 x 159 A)  
 Pulse current: max. 720 A (2 x 360 A)  
 Effective voltage: max. 550 V



## PULSE-REVERSE power supplies POWER PULSE

Water cooled



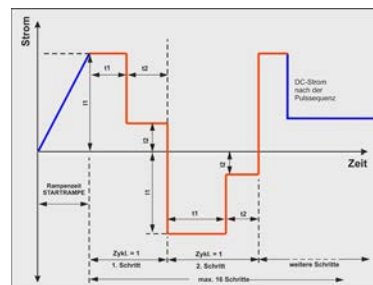
### pe80CD series/pe86CWD series

Output power: max. 132 kW  
 Effective and DC current: max. 3604 A  
 Pulse current: max. 8160 A  
 Effective voltage: max. 800 V  
 Outputs: up to 16



### pe8005

Programmable control unit



Examples of pulse diagrams, schematic

### Typical parameters

Switch mode technology

#### Complex waveforms

Regulation inaccuracy < 1% (relative to related DC value)

Ripple < 1% (relative to related DC value)

Constant current and voltage regulation

Fast rise and fall times (steep curve flanks)

Permanently short-circuit and open-circuit proof

Operating/programming via pe8005 control unit

### Product characteristics, programmable control unit pe8005

Large, illuminated 5.7" graphic display

Clear and user-friendly guidance leading through structured pull-down menus

Controls from 1 to 16 outputs

Easy generation of complex waveforms, consisting of up to 16 steps

RS485 Bus Interface (optional: PROFIBUS, TCP/IP, Modbus)

Synchronization function

Ah-totalizer, dosage counter, timer, programmable START ramp, 2 configurable output relays

Parameters individually adjustable even during operation

Graphical visualization of set-values and real-time actual value curves (oscilloscope function)

Resolution: 100 mA, 0.02 mSec

The performance range can be individually multiplied using parallel connection.

The individual outputs can be synchronised as required.



## plating electronic – Your specialist for DC and Pulse power supplies

Since 1986 plating electronic has been one of the leading developers and manufacturers of compact and highly specialised DC and Pulse power supplies. Our power supplies and control systems, which are exactly tailored to the specific application profiles, are in use worldwide. Global service and on-site customer support are provided by our international subsidiaries and partners.

As a medium-sized enterprise, our focus is on the fast realisation of projects and maximum customer satisfaction. Whether compact standard unit in bench-top design, plug-in, as cabinet units or specially planned solutions for a specific customer need – every power supply is suitable for the highest day-to-day requirements and continues, of course, to be **MADE IN GERMANY**.

**plating electronic GmbH**  
Marie-Curie-Straße 6  
79211 Denzlingen  
Germany  
[www.plating.de](http://www.plating.de)

**M+B Plating Racks Inc.**  
5400 Vanden Abeele  
H4S-1P9 Ville St. Laurent,  
Quebec  
Canada  
[www.mbracks.com](http://www.mbracks.com)

**Hendor-pe UK Ltd.**  
Carrington Business Park  
Manchester Road  
Carrington  
M31 4DD  
Manchester  
United Kingdom  
[www.hendor-pe.co.uk](http://www.hendor-pe.co.uk)

**Hendor-pe Inc.**  
55 Concourse Way  
Greer, SC 29650  
USA  
[www.hendor-pe.com](http://www.hendor-pe.com)

**Hendor-pe ESPAÑA, S. L.**  
Via Llobregat 2  
E-08780 Palleja (Barcelona)  
Spain  
[www.hendor-pe.es](http://www.hendor-pe.es)

**Hendor-pe France**  
SAS ALFEN  
191, Allée Lavoisier  
42350 La Talaudiere  
France  
[www.hendorpefrance.fr](http://www.hendorpefrance.fr)

**S&tRind S.r.l.**  
Via Giovanni Keplero, 24,  
20019 Settimo Milanese (MI)  
Italy  
[www.s-rind.it](http://www.s-rind.it)

**Vonesco Control AG**  
German-speaking  
Switzerland:  
Gewerbestrasse 6  
8162 Steinmaur  
Switzerland  
[www.vonesco.com](http://www.vonesco.com)

**Christen Galvano AG**  
West Switzerland/  
French-speaking  
Switzerland:  
Milieu du Village 4  
2515 Prêles  
Switzerland  
[www.christen-galvano.ch](http://www.christen-galvano.ch)

**Hendor PE China Co., LTD**  
Room 701, Huguangtong Venture  
Building, No. 220 Shenhui Road,  
Longgang District, Shenzhen City,  
Guangdong Province,  
China, postal code: 518172  
[www.hendorpechina.com](http://www.hendorpechina.com)

**G Business Corp.**  
301 Dong 401 Ho, SeokCheonRo 397,  
OJeongGu, BuCheonSi  
GyeongGiDo, Korea 421-742  
[www.gbusiness.co.kr](http://www.gbusiness.co.kr)

**Solidheat Industries Pte Ltd**  
Blk 9005, Tampines St 93,  
#02-242 Tampines Industrial Park  
Singapore 528839  
[www.solidheat.com](http://www.solidheat.com)

**Australian Rectifiers Pty Ltd.**  
15 Richards Road  
Hoppers Crossing, Vic 3029  
Australia  
[www.australianrectifiers.com.au](http://www.australianrectifiers.com.au)

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