

POWER STATION pe5040-W

Output power:	100 - 300 kW	Typical applications:	
DC current:	12000 - 24000 A (max. 24000 A / 4 V)	Chrome plating	Barrel plating
DC voltage:	2 - 24 V (max. 24 V / 12000 A)	Anodizing/Aluminium colouring	Rack plating

Water cooled DC power supply in switch mode technology, designed for the direct installation at the electroplating tank.



POWER STATION pe5040-W, front view, with 1000mm-supply cabinet

Characteristic values

Linearity inaccuracy:

- for amperage < 1 %
- for voltage < 0.5 %

Ripple less than < 2 %

Efficiency typical > 85 %

Powerfactor cos ϕ 0,95

Constant current and voltage control

Soft start function

Over temperature protection

Internal shunt with 60 mV at I_{nenn}

Pulse operation optional

Mains supply: standard 3 x 400 V +/- 10 % / 50-60 Hz (other voltages on request)

Cooling

Water cooled / cooling water specification: see page 2

Ambient temperature 40°C (other on request)

Stainless steel cooling system, over temperature protected

Design

Compact Rittal TS cabinet; protection grade: IP54

Powder coated, RAL 7035

Mains supply below in cabinet

Cooling water connection in the plinth, 1/2" connections

DC connector in top of the cabinet

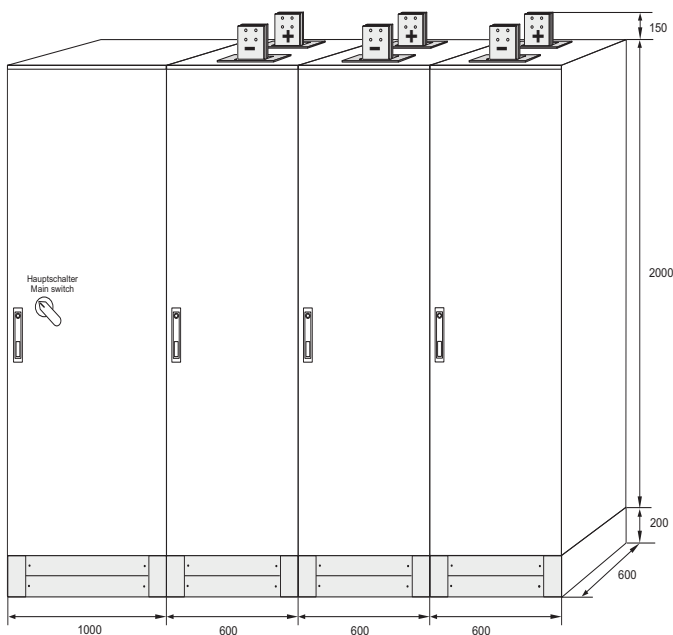
With mains power switch, fuses and sub distributor in a separate supply cabinet

Dimensions (W x H x D) 2800 x (2200+150) x 600mm incl. plinth

EMV: EN50011 class A, group B ; EN61000-6-4 and EN61000-6-2;
CE-conformity low voltage guide line: EN50178

Values	Standard sizes - DC output ¹							other sizes on request		
DC current	24000 A	21600 A					20000 A	16500 A	15000 A	12000 A
DC voltage	4 V	5 V	6 V	8 V	10 V	12 V	15 V	18 V	20 V	24 V
Mains supply	3 x 400V AC									
Weight	approx. 1400kg									

Standard dimensions



Control

Standard: peRB-interface

Optional: external control via analog signals, also with integrated isolation amplifier

Signals: 0-10V
0-1V
4-20mA
0-20mA (other on request)

Control unit pe280
for the controlling of
DC power supplies of
the series POWER STATION pe5040-W

Designed for electroplating applications
Large 3-line LCD-display,
polycarbonate-keypad for easy operation
Current and voltage infinitely adjustable
by UP / DOWN buttons

Current and voltage preset

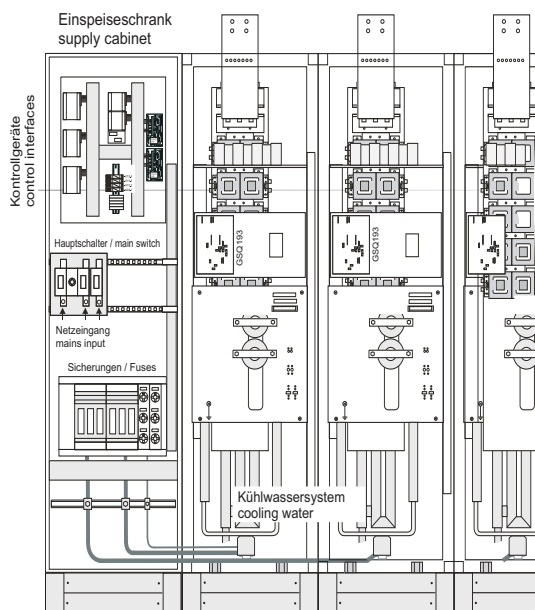
Ampere-hour counter (totalizer)

Protection grade: IP54

Ambient temperature max. 40°C



Beispiel
example: 3 x 2V / 8000A



Optional available functions

Preset counter, dosage counter *

Ramp function (start / stop ramp)

Timer function for ON / OFF *

Voltage / current alarm *

Operating hours counter

Chopper timer (pulse-capable rectifier type requested)

Pole changer function (mechanical / electronic) *

Programmable DC steps (14 individual steps) *

Extern ON

* Indication / alarm output

Control via: RS485, PROFIBUS, TCP/IP (other on request)

Cooling water specification

For the water cooling system, city water with the following specifications should be used:

ph Value: 7,0 - 8,0
Hardness: $\leq 1,3 \text{ mmol/l}$ ($\leq 7^\circ \text{dH}$)
Chloride: $\leq 100 \text{ mg/l}$

Inlet temperature: 18-26°C
Water pressure: $> 2 \text{ bar}$

To operate this rectifier, and to keep the specified values of the cooling water, a closed cooling system is recommended.

Technical equipment, design and features: subject to change! For further information please contact plating electronic GmbH.