DC POWER SUPPLY

POWER STATION pe5410-W

plating electronic
we care for power

Output power:	**max.**	**110kW**
DC current:	**max.**	**5000A (at 22V)**
DC voltage:	**max.**	**1000V (at 100A)**

Typical applications:

Chrome plating — Barrel plating
Anodizing/Aluminium colouring — Rack plating

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

POWER STATION pe5410-W, front and back view

Variable output range

the output range can be individually multiplied

Characteristic values

Linearity inaccuracy:
- for amperage < 1 %
- for voltage < 0.5 %

Ripple less than < 1 %

Efficiency typical > 85 %

Powerfactor cos φ 0,95

Constant current and voltage control

Soft start function

Over temperature protection

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

Cooling water connections are located in the plinth

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 output bus bars:
- Low voltage outputs in rear panel of the cabinet
- High voltage outputs inside the cabinet

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

Dimensions (W x H x D) 400 x 2200 x 600mm incl. plinth

EMV: EN55011 class A, group 1 ; EN61000-6-4 and EN61000-6-2;
CE-conformity IEN50178 - low voltage guide line

Values	Standard sizes – DC output[1]										[1]other sizes on request		
DC current	5000 A										4000 A	3000 A	100 A
DC voltage	4 V	5 V	6 V	8 V	10 V	12 V	15 V	18 V	20 V	22 V	24 V	30 V	1000 V
Mains supply	3 x 400V AC												
Weight	approx. 260 kg												

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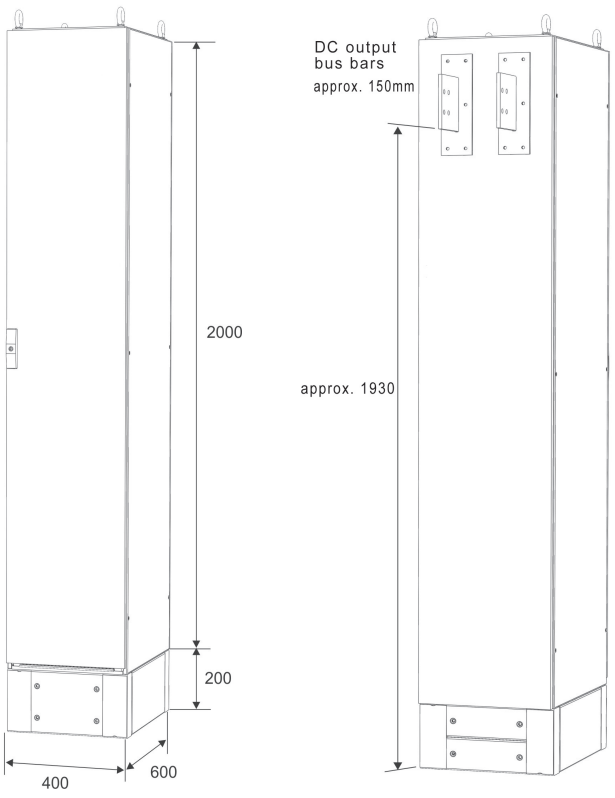
Standard dimensions



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

Designed for electroplating applications

Large 3-line LCD-display, keypads for easy programing/selection

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

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 spezification

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

ph Value:	7,0 - 8,0 und TOC < 1,5 mg/l	Sulfate:	< 240 mg/l
Hardness:	<=1,3 mmol/l (<=7°dH)	Nitrate:	< 50 mg/l
Chloride:	<=100 mg/l	Sodium:	< 150 mg/l
Inlet temperature:	18-26°C	Water pressure:	> 2-5 bar

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

The primary goal of these values is to eliminate internal condensation. Depending on the region and the environmental circumstances the units are operated it might become necessary to depart from above values!

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