

Output power:	max.	200kW	Typical applications:	
DC current:	max.	10000A / 2x 5000A (at 20V)	Chrome plating	Barrel plating
DC voltage:	max.	1000V (at 200A)	Anodizing/Aluminium colouring	Rack plating

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



POWER STATION pe5910-W, front view - example

Extendable power range

The power range can be extended by wiring the DC outputs of several cabinets in parallel (sum current) or in serial (sum voltage)

Characteristic values

Linearity inaccuracy:

- for amperage < 1 %
- for voltage < 0.5 % (depending on regulation mode)

Ripple less than < 1 % RMS

Efficiency typical > 90 %

Powerfactor 0,95

Constant current and voltage control (optional: power regulation)

Inrush current protection

Over temperature protection

Pulse operation optional

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

Optional with integrated pole changer (max. 15V, other 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
(water pressure: 2-5 bar)

DC output bus bars:

- Low voltage outputs up to 50V on top of the cabinet
- Voltages above 50V: touch safe design

Mains power switch, fuses and sub distributor optional available in separate cabinet.

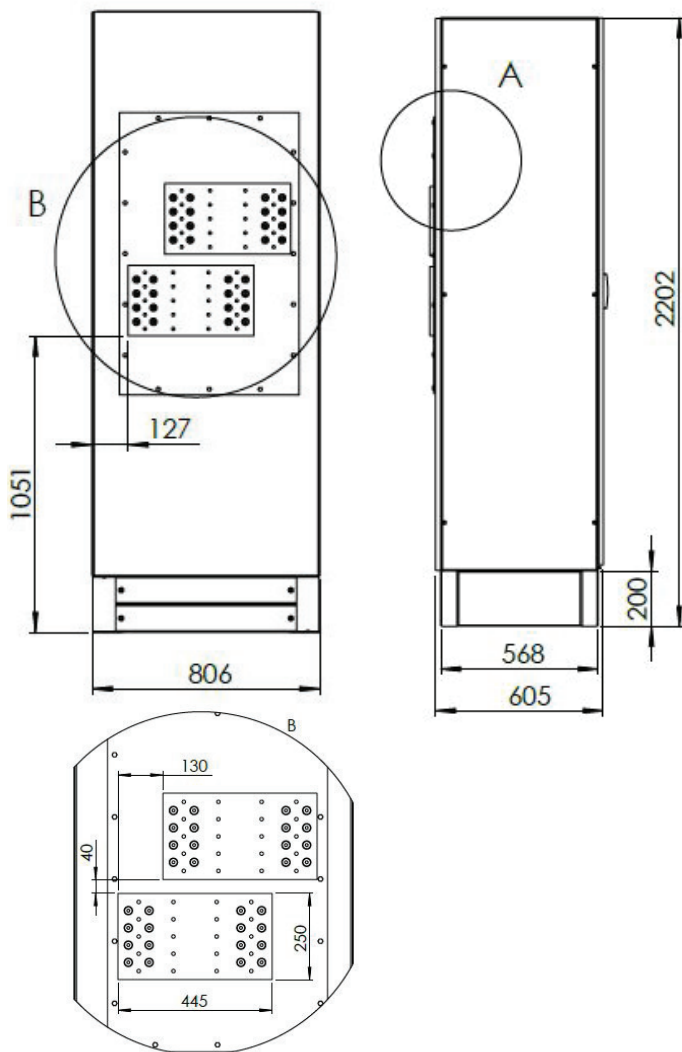
Moulded-case circuit breaker with short-circuit protection, low-voltage release and overload protection can be installed as option.

Dimensions (W x H x D) 800 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	10000 A					5000 A	2000 A	200 A
DC voltage	10 V	12 V	15 V	18 V	20 V	40 V	100 V	1000V
Mains supply	3 x 400V AC							
Weight	approx. 450 – 550 kg							

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 programming/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 specification

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!