PULSE-REVERSE POWER SUPPLY

POWER PULSE pe80CD

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Output power:	**max. 2 x 16000 Watts (max. 4 x 8000 Watts)**	**Typical applications:**
Effective - and DC-current:	**max. 2 x 1060 A (max. 4 x 424 A)**	PCB lines
Reverse-current:	**max. 2 x 2400 A (max. 4 x 960 A)**	
Effective voltage:	**Standard 2 x 6 V (4 x 6 V), other voltages on request (up to 550V)**	

POWER PULSE pe80CD, front view

POWER PULSE pe80CD, back view

Characteristic values

Switch mode technology
Dual output, 4-fold output (single output optional) (see below matrix)
Linearity inaccuracy < 1 % (related to nominal DC value)
Ripple less than < 1 % (related to nominal DC value)
Complex waveforms
Constant current regulation (voltage regulation on request)
SPI interface for control unit pe8005
Fast rise and fall times (rectangular waveforms)
Permanent short circuit and open circuit proof
Microprocessor controlled regulation
Mains supply: standard 380 V - 460 V/3~ +/- 10 % / 50-60 Hz Optional: 200 V - 240 V/3~ +/- 10 % / 50-60 Hz
Max. effective output power: see below matrix

Cooling

Water cooled (designed for the direct installation at the electroplating tank)
Ambient temperature 40°C
Over temperature protected

Design

Compact stainless steel casing; protection grade IP54
DC/Pulse connection in back panel (tin copper bus bars)

Control unit pe8005, front view

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

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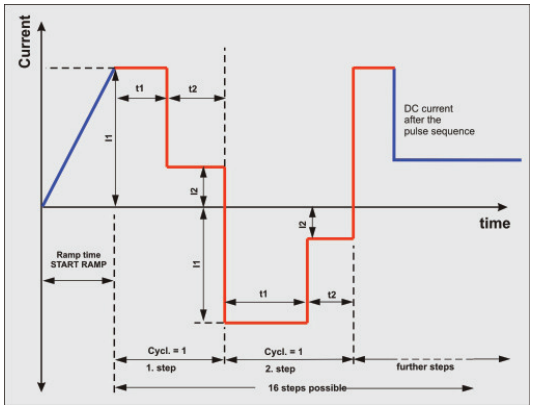
Technical specifications -POWER PULSE pe80CD - dual output / 4-fold output

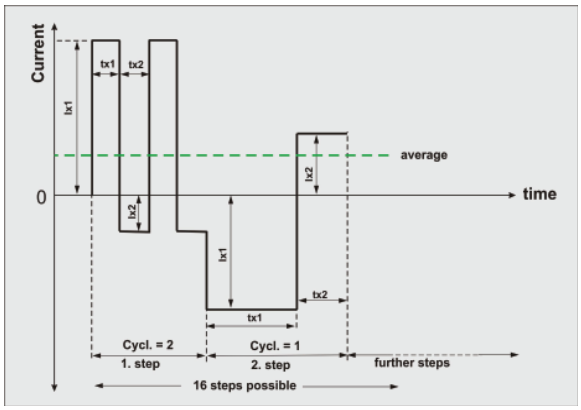
Type	pe80CD122 / pe80CD124	pe80CD202 / pe80CD204	pe80CD322 / pe80CD324*	pe80CD402
Forward current	2 x 120 A / 4 x 120 A	2 x 200 A / 4 x 200 A	2 x 320 A / 4 x 320 A	2 x 400 A
Reverse pulse current	2 x 360 A / 4 x 360 A	2 x 600 A / 4 x 600 A	2 x 960 A / 4 x 960 A	2 x 1200 A
Current ratio I_F : I_R	free adjustable			
Effective current / DC	2 x 159 A / 4 x 159 A	2 x 265 A / 4 x 265 A	2 x 424 A / 4 x 424 A	2 x 530 A
Minimum time reverse-pulse	0,1 msec.			
Water cooling				
Max. water inlet temperature	23 - 26°C			
Max. water outlet temperature	40°C			
Water consumption approx.	3 l/min (*3,6 l/min)			

Type	pe80CD442	pe80CD482	pe80CD522	pe80CD602
Forward current	2 x 440 A	2 x 480 A	2 x 520 A	2 x 600 A
Reverse pulse current	2 x 1320 A	2 x 1440 A	2 x 1560 A	2 x 1800 A
Current ratio I_F : I_R	free adjustable			
Effective current / DC	2 x 583 A	2 x 636 A	2 x 689 A	2 x 795 A
Minimum time reverse-pulse	0,1 msec.			
Water cooling				
Max. water inlet temperature	23 - 26°C			
Max. water outlet temperature	40°C			
Water consumption approx.	3 l/min			3,4 l/min

Type	pe80CD642	pe80CD722	pe80CD762	pe80CD802
Forward current	2 x 640 A	2 x 720 A	2 x 760 A	2 x 800 A
Reverse pulse current	2 x 1920 A	2 x 2160 A	2 x 2280 A	2 x 2400 A
Current ratio I_F : I_R	free adjustable			
Effective current / DC	2 x 848 A	2 x 954 A	2 x 1007 A	2 x 1060 A
Minimum time reverse-pulse	0,1 msec.			
Water cooling				
Max. water inlet temperature	23 - 26°C			
Max. water outlet temperature	40°C			
Water consumption approx.	3,7 l/min	4,1 l/min	4,4 l/min	4,6 l/min



Examples: pulse shapes, schematic display



Example 2: with average value

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

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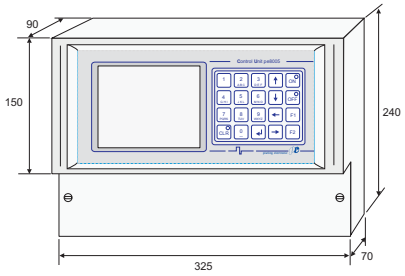
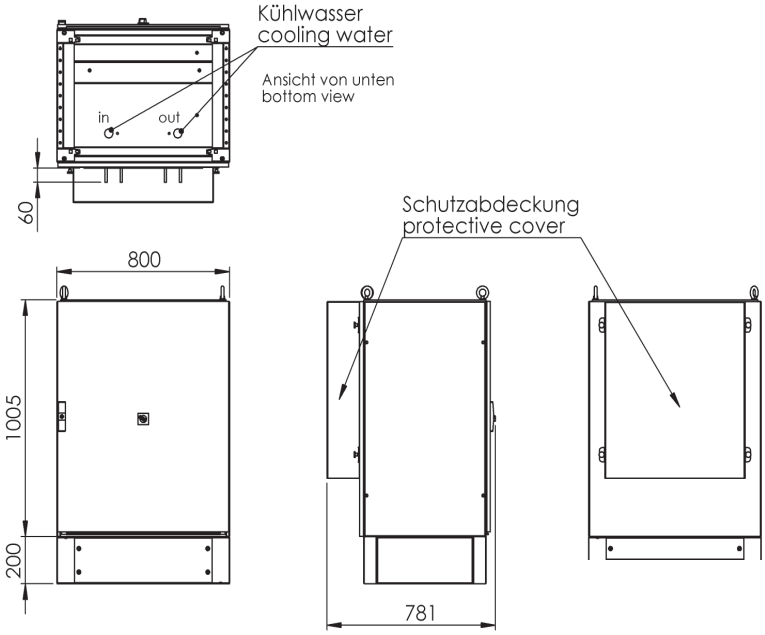
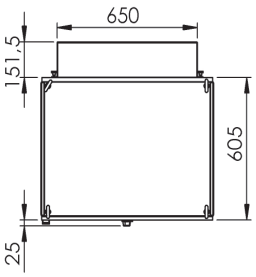
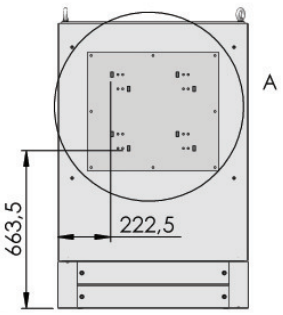


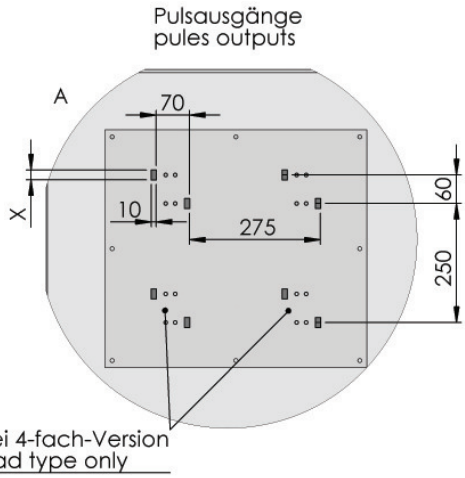
Control unit pe8005
Dimensions (W x H x D): 325 x240 x 90 mm

Dimensions (W x H x D): 800 x 1205 x 781 mm









Operation / programming (via external pe8005 control unit)

- Large illuminated 5,7" graphic display
- 5 x 4 keypad for easy handling and navigation
- Clear and user friendly menu navigation via well structured pull down menus
- Easy generation of complex waveforms with up to 16 individual steps with 2 individual amplitudes (Ix1 and Ix2 as well as tx1 and tx2), that can be positive or negative
- MMC/SD card reader for software update, import / export of device configuration, set values and storing of bus-logging data
- RS485 interface (optional: PROFIBUS or TCP/IP)
- Synchronization function
- 2 programmable output relays
- Ah-totalizer, dosage counter, timer
- Programmable START ramp
- Parameters individually adjustable even during operation

Display

- Clear display of actual values
- Graphic view of the set value shape, actual values shown in oscilloscope-mode with real time oscilloscope-function
- Status, warning and error indication

Resolution

- 0 up to +/- xx.xA for Ix1 and Ix2; resolution: 100mA
- 0 up to 9 999.9mSec for tx1 and tx2; resolution: 0,1mSec
- Cycles (repeatings per step): 1 - 99

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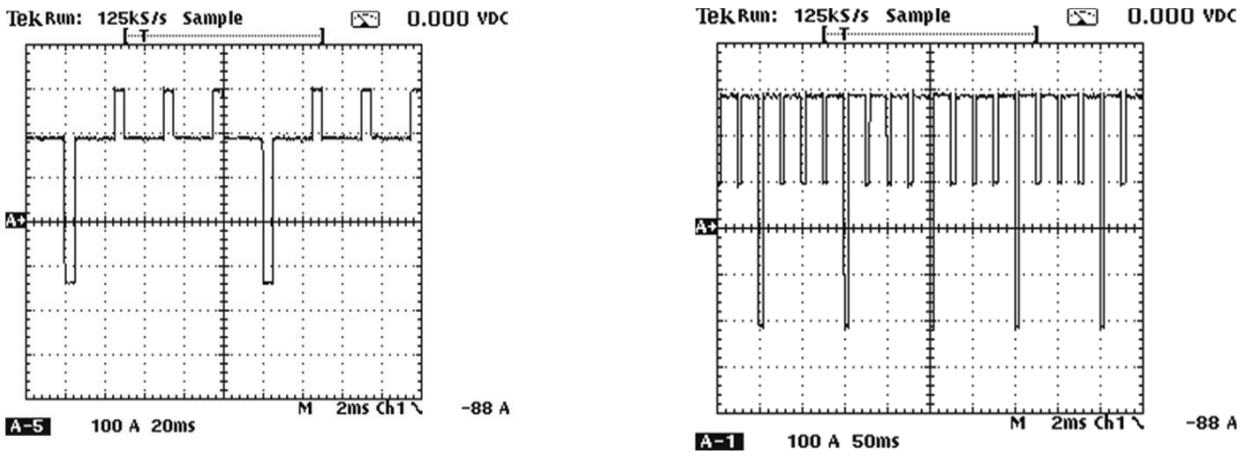

Graphic:
example for pulse curves that can be generated by the pulse rectifier

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Wiring diagram pe80CD Pulse-Reverse Power Supply and control unit pe8005