

PULSE-REVERSE POWER SUPPLY



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POWER PULSE pe80CD

Output power:	max. 2 x 16000 Watts (max. 4 x 8000 Watts)
Effective – and DC-current:	max. 2 x 1060 A (max. 4 x 424 A)
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)

Typical applications:
PCB lines



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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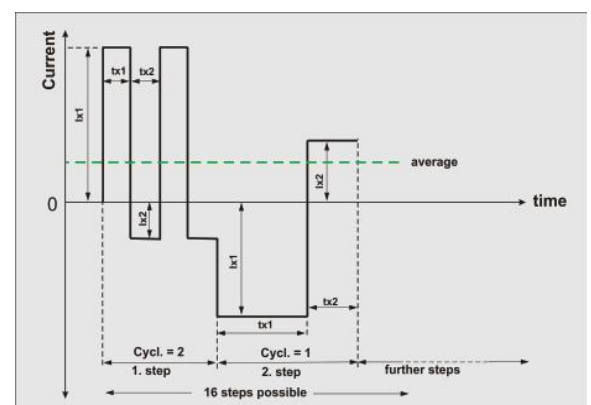
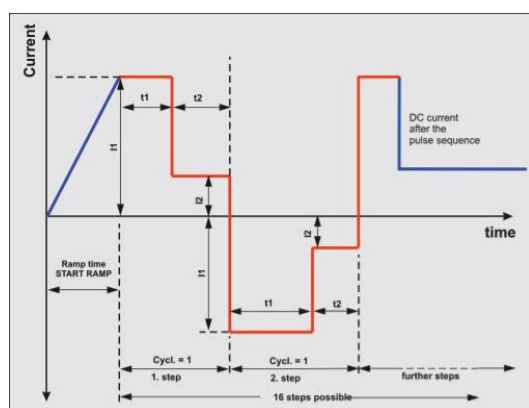
POWER PULSE pe80CD

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

Type	pe80CD122 / pe80CD124	pe80CD202 / pe80CD204	pe80CD322 / pe80CD324*	pe80CD402 / pe80CD404*
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 / 4 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 / 4 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 / 4 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: subject to change! For further information please contact plating electronic GmbH.

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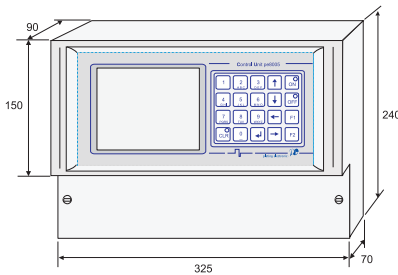


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POWER PULSE pe80CD



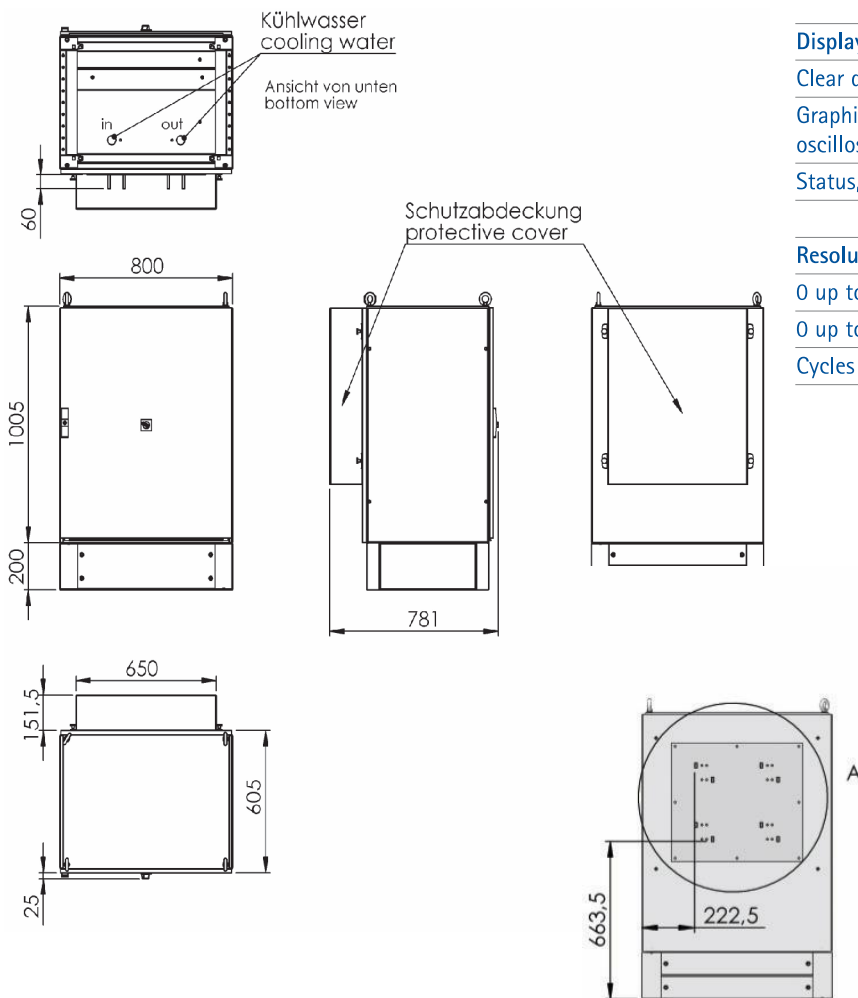
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Control unit pe8005

Dimensions (W x H x D): 325 x 240 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

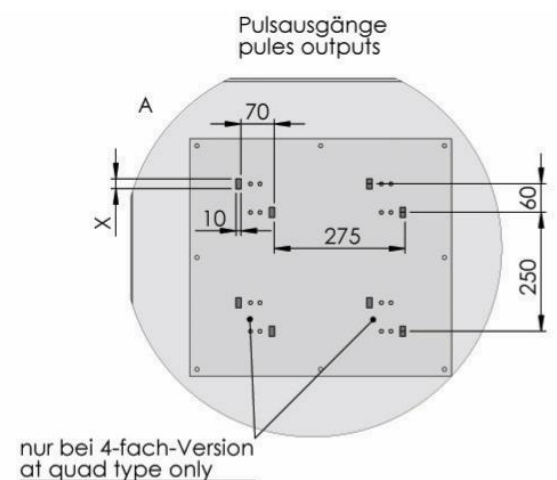
Status, warning and error indication

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 (repeating per step): 1 - 99



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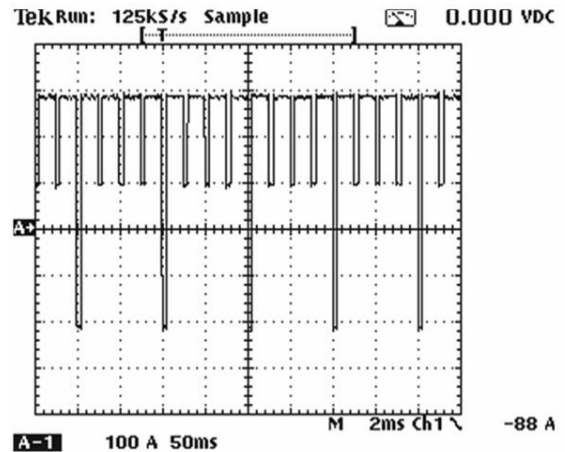
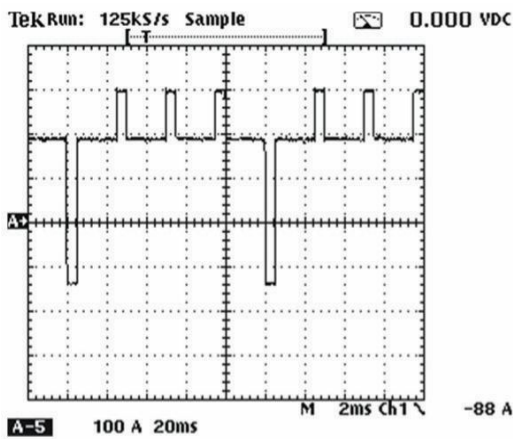


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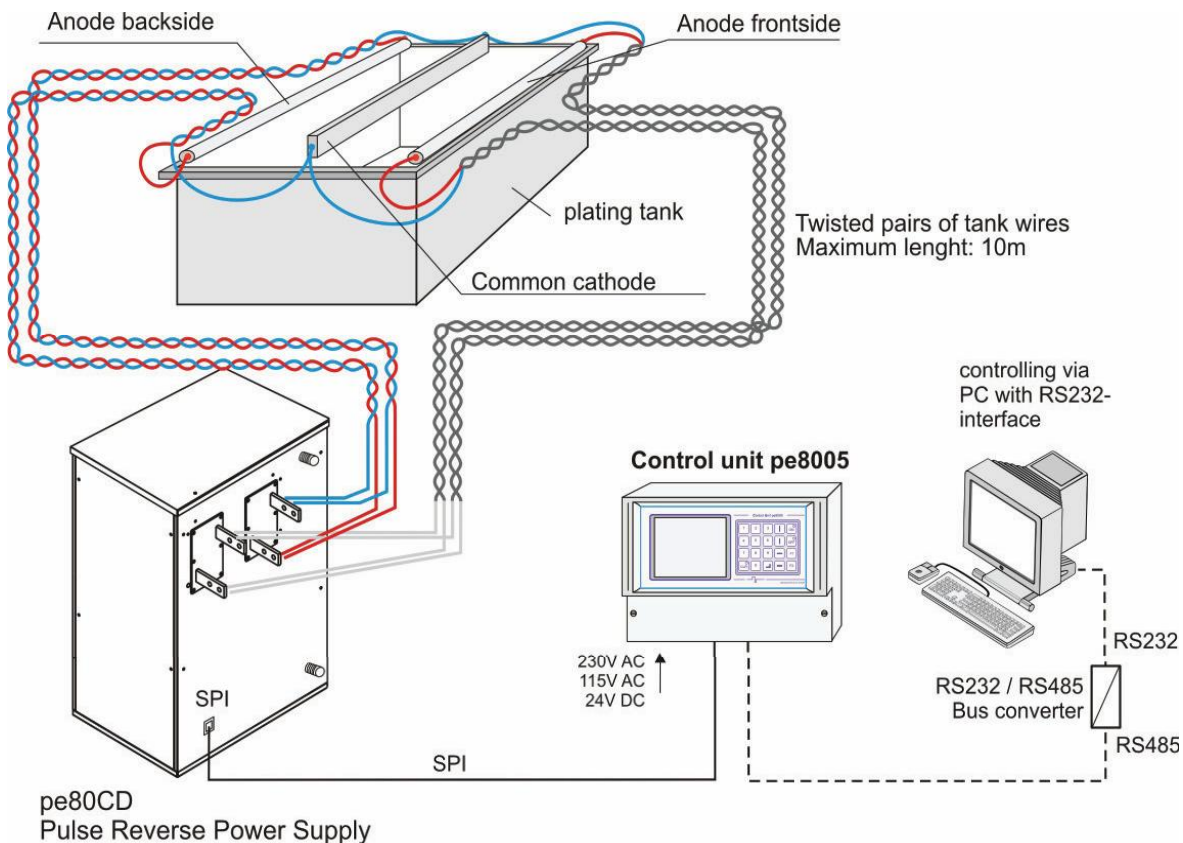


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Graphic:
example for pulse curves that can be generated by the pulse rectifier

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



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