

# PSSW – Switch Mode Power Supplies

## HIGH FREQUENCY AC/DC CONVERTERS

The PSSW power supplies are high frequency switch mode AC/DC converters. These allow total control of DC power for most types of Electro Deionization (EDI) and Electro Dialysis (ED) modules and optimize overall system performance.

The modular designed PSSW power supplies are operated individually or in parallel arrangement. The power supplies are simply managed either by a dedicated DSPSSW01 Control Display (1 PSSW), a DSPSSW08 Control Display with CISW00108 Control Interface (1-8 PSSW) or by a CISW00108 Control Interface.

### Single and three phase PSSW

The PSSW switch mode AC/DC power supplies are energized either from a single or three phase AC power supply, depending on the rated power output.

The optional available Control Display manages the power supply directly via one external start signal and provides feedback via potential-free contacts.



For additional information call +31 165 348 253 or visit [www.purewatergroup.com](http://www.purewatergroup.com)



## PSSW Switch Mode Power Supply Features

- Compact design, small footprint
- Simplifies EDI / ED system design
- Suitable for either Current or Voltage control, both fully adjustable
- A practical wide range of input voltage
- Parallel arrangement possible for higher current application
- Integrated overcurrent and overvoltage protection
- Input and output galvanic separated
- High power factor, even at low power draw
- Very high efficiency
- Low vulnerability to incoming power quality issues
- On-board diagnosis
- Remote control via:
  - DSPSSW01 for Display Control, or
  - CISW00108 + DSPSSW08 for Display Control and PLC control, or
  - CISW00108 Control Interface for PLC control
    - Analogue signals
    - RS485 Modbus

*Engineering purity*



# PSSW Switch Mode Power Supplies

## Specifications 1 - phase PSSW power supply

Rated supply voltage	1-ph 230V, 50 / 60Hz
Input power supply voltage range	1-ph 195 – 265 VAC
Rated power input	3250 VA
Nominal input current	14,2 A
Recommended input protection	1P 16 A, characteristics C

1-phase	PSSW07050	PSSW14025
Rated power output	2900 W	2900 W
DC voltage range	0 ... 70V DC	0 ... 140V DC
Max. current	50A	25A
Current @max. DC voltage	41,4A	20,7A
Output voltage ripple	<0,25V <sub>pp</sub>	<0,3V <sub>pp</sub>
Output current / voltage tolerance	±2% / ±1%	±2% / ±1%
Efficiency	90%	91%
Power factor	0,99	0,99

## Specifications 3 - phase PSSW power supply

Rated supply voltage	3-ph 400V, 50 / 60Hz
Input power supply voltage range	3-ph 360 – 460 VAC
Rated power input	5550 VA
Nominal input current	8,0 A
Recommended input protection	3P 10 A, characteristics C

3-phase	PSSW30024	PSSW60012
Rated power output	4800 W	4800 W
DC voltage range	0 ... 300V DC	0 ... 600V DC
Max. current	24A	12A
Current @max. DC voltage	16A	8A
Output voltage ripple	<0,5V <sub>pp</sub>	<1V <sub>pp</sub>
Output current / voltage tolerance	±2% / ±1%	±2% / ±1%
Efficiency	94%	94%
Power factor	0,94	0,94

## Connectivity and IP Protection

	1-phase PSSW	3-phase PSSW
Weight	6 kg	9 kg
Panel mounting	4x screw M6	4x screw M6
Protection	IP20 except output terminals	IP20
Input / output	0,5-2,5 mm <sup>2</sup> 2x screw M8	Up to 16mm <sup>2</sup>
Operating conditions	-10°C to 40°C, 80% max. relative humidity non condensing	
Storage	Dry rooms -25°C to 80°C, 80% max. relative humidity non condensing	
Power supply connection	WAGO 231-704/026-000 (direct), or WAGO 732-124/026-000 (angular)	
Compatible with	Communication Interface (CISW00108), or Control Display (DSPPSSW01)	

## Safety and EMC

LVD	EN 60950-1
Protection class	1
Contamination class	2
EMC emissions	EN 61000-6-4
EMC resistivity	EN 61000-6-2
Harmonic current emissions	EN 61000-3-2

## Function of connecting terminals

PE	Protective conductor PE
L, N	2 Phase conductors (1ph PSSW)
L1, L2, L3	3 Phase conductors (3ph PSSW)
+	Positive output terminal
-	Negative output terminal

## Ordering Information and Physical Specifications

Model	Description	Width	Height	Depth
PSSW07050	1ph DC power supply 230VAC-70VDC/50A/2,9kW	258 mm	335 mm	81 mm
PSSW14025	1ph DC power supply 230VAC-140VDC/25A/2,9kW	258 mm	335 mm	81 mm
PSSW30024	3ph DC power supply 3x400 VAC-300VDC/24A/4,8kW	258 mm	405 mm	81 mm
PSSW60012	3ph DC power supply 3x400 VAC-600VDC/12A/4,8kW	258 mm	405 mm	81 mm

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