

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 DSPPSSW08 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.

Different feed voltages can be accommodated by optionally available auto-transformer.



For additional information call +31 165 348 253 or visit 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:
 - DSPPSSW08 + CISW00108 for Display Control and PLC control
 - CISW00108 Control Interface for PLC control
 - Analogue signals
 - On board trimmers
 - Digital signals
 - RS485 Modbus

Engineering purity



PSSW Switch Mode Power Supplies

Specifications 3 - phase PSSW power supply 2,9 kW

Rated supply voltage	3-ph 400 V, 50 / 60Hz
Input power supply voltage range	3-ph 360 – 460 VAC
Rated power input	3390 VA
Nominal input current	4,9 A
Recommended input protection	3P 6 A, characteristics C

3-phase	PSSW070503S	PSSW140253S
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 _{pp}	<0,3V _{pp}
Output current / voltage tolerance	±2% / ±1%	±2% / ±1%
Efficiency	93%	94%
Power factor	0,92	0,92

Specifications 3 - phase PSSW power supply 4,8 kW

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 _{pp}	<1V _{pp}
Output current / voltage tolerance	±2% / ±1%	±2% / ±1%
Efficiency	94%	94%
Power factor	0,94	0,94

Ordering Information and Physical Specifications

Model	Description	Width	Height	Depth
PSSW070503S	3ph DC power supply 3x400 VAC-70VDC/50A 2,9kW	258 mm	335 mm	81 mm
PSSW140253S	3ph DC power supply 3x400 VAC-140VDC/25A 2,9kW	258 mm	335 mm	81 mm
PSSW070505S	1ph DC power supply 230VAC-70VDC/50A/2,9kW	258 mm	335 mm	81 mm
PSSW140255S	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

Specifications 1 - phase PSSW power supply 2,9 kW

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	PSSW070505S	PSSW140255S
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 _{pp}	<0,3V _{pp}
Output current / voltage tolerance	±2% / ±1%	±2% / ±1%
Efficiency	90%	91%
Power factor	0,99	0,99

Connectivity and IP Protection

	PSSW 2,9 kW	PSSW 4,8 kW
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 ² 2x screw M8	Up to 16mm ²
Operating conditions at max power	-10°C to + 40°C, max. relative humidity 80% non condensing	
Storage	In dry rooms -25°C to + 80°C, max. relative humidity 80% non condensing	
Power supply connection	WAGO 231-704/026-000 (direct), or WAGO 732-124/026-000 (angular)	
Compatible with	Communication Interface (CISW00108) Control Displays (DSPPSSW)	