Power Source

Precision high power voltage and current source

⇨ Highlights

- Modular design with simple customization
- Signal generation based on digital synthesis of the signal waveform
- High efficiency of power output stages with extremely high fidelity and noise-free output
- Switch mode output stage with efficiency better than 85%

⇨ Description

The **Power Source** generates and delivers precision high power voltage and current signals for high volume calibration and testing of electricity meters and measuring devices.

Power Source 8306 - 8310

Power Source 8315 - 8325

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⇨ Available Models

Single-phase models:

Model	**Output Power** (voltage / current)
PS 8106B	600 VA / 600 VA (800 VA on request)
PS 8110B	1000 VA / 1000 VA
PS 8115B	1500 VA / 1500 VA
PS 8120B	2000 VA / 2000 VA
PS 8125B	2500 VA / 2500 VA
PS 8128B	1000 VA / 2800 VA

Three-phase models:

Model	**Output Power** (voltage / current)
PS 8306B	600 VA / 600 VA (800 VA on request)
PS 8310B	1000 VA / 1000 VA
PS 8315B	1500 VA / 1500 VA
PS 8320B	2000 VA / 2000 VA
PS 8325B	2500 VA / 2500 VA
PS 8328B	1000 VA / 2800 VA

⇨ Technical Specification

General Parameters	
Harmonics	Free programmable up to 100th harmonics. Preprogrammed test patterns according to IEC 62053-21 and other related standards.
Test Signals	Ripple control signals. Dips, Swells, Interruptions.
Comm. Interface	RS 232 *(SCPI compatible communication protocol)*
Output Protection	Short Circuit, Open Circuit, Thermal Muting, Residual Current Device on Voltage output
Dimensions	19" Rack System
Operat. Temperature	+10 ... +50 °C
Storage Temperature	-20 ... +60 °C

Voltage			
RMS Voltage Range (Phase - Neutral)	1 x 30 V .. 300 V *(500 V optional)**	PS 81xx	
	3 x 30 V .. 300 V *(500 V optional)**	PS 83xx	
Resolution	< 0.01 % (< 0.002 % with combined RS/SG)		
Stability	< 0.005 % / h (integration time 60 s)		
Distortion Factor	< 0.3 %		
Accuracy	0.2 % typical		
	0.02 %	when used with RS 2x30A	
	0.01 %	when used with RS 2x30E	
	0.005 %	when used with RS 2x30S	

Current		
RMS Current Range	1 x 1 mA .. 120 A *(160 A optional)**	PS 81xx
	3 x 1 mA .. 120 A *(160 A optional)**	PS 83xx
Resolution	< 0.01 % (< 0.002 % with combined RS/SG)	
Stability	< 0.005 % / h (integration time 60 s)	
Distortion Factor	< 0.3 %	
Accuracy	0.2 % typical	
	0.02 %	when used with RS 2x30A
	0.01 %	when used with RS 2x30E
	0.005 %	when used with RS 2x30S

Phase Angle		
Range	0 ° .. 360 °	
Resolution	< 0.01 °	
Setting Accuracy	0.5 °	
	0.01 °	when used with RS 2x30A
	0.008 °	when used with RS 2x30E
	0.005 °	when used with RS 2x30S

Frequency	
Fundamental Frequency Range	40 Hz .. 70 Hz
Resolution	< 0.002 Hz
Accuracy	< 0.002 Hz

Output Power *		**Model**
Voltage / Current	600 VA / 600 VA (800 VA)	PS 8x06
	1000 VA / 1000 VA	PS 8x10
	1500 VA / 1500 VA	PS 8x15
	2000 VA / 2000 VA	PS 8x20
	2500 VA / 2500 VA	PS 8x25
	1000 VA / 2800 VA	PS 8x28

** other configurations available on request*

⇨ Options / Accessories

Code	**Description**
PS 8xxxp /50cc	Max. output voltage extension from 300 V to 500 V
PS 8xxxp /vv16	Max. output current extension from 120 A to 160 A
PS 8xxxp /vv20	Max. output current extension from 120 A to 200 A
HWR 1112B	Single - Phase
HWR 1312B	Three - Phase

Half Wave Rectifier *- enables meter testing according to IEC 62053-21 Appendix A.1 (D.C. and even harmonics)*