# **Programmable Switching D.C. Power Supply**



## **PSH-Series**



The PSH-Series are single output from 360 to 1080W, programmable switching DC power supplies. OVP, OCP and OTP protect the power supply and loads from unexpected conditions. Remote sensing adds an extra level of precision by compensating cable losses between loads. The bright LCD with simultaneous parameter outputs allows effortless operation. Self-test and software calibration features also reduce maintenance overheads. SCPI commands and LabVIEW driver access through the RS-232C or the optional GPIB interface allow remote control and ATE software development capability. Modular architecture, dedicated rear-panel output, and the 19 inch 4U rack mounting option ensure that the PSH-Series is optimized for large systems.

### **FEATURES**

- \* Wide Input Voltage Range and High Power Factor (P.F)
- \* High Efficiency and High Power Density
- \* Constant Voltage and Constant Current Operation
- \* Over Voltage , Over Current and Over Temperature Protection
- \* Self-Test and Software Calibration
- \* Output ON/OFF Control
- \* Low Ripple and Noise
- \* LCD Display
- \* Built-in Buzzer Alarm
- \* Standard Interface: RS-232C
- \* Optional Interface : GPIB ( IEEE-488.2 )
- \* LabVIEW Driver

SPECIFICATIONS					
5, 26,, ,	C, (110)	PSH-2018A	PSH-3610A	PSH-3620A	PSH-3630A
OUTPUT					
Voltage		20V	36V	36V	36V
Current		18A	10A	20A	30A
REGULATION ( C.V. )					
Load		≤ 0.1%+5mV	≤ 0.1%+5mV	≤0.1%+5mV	≤ 0.1%+5mV
Line		≤ 0.05%+5mV	≤ 0.05%+5mV	≤0.05%+5mV	$\leq 0.05\% + 5 \text{mV}$
REGULA	TION (C	.C.)			
Load		≤ 0.2%+5mA	≤ 0.2%+5mA	≦0.2%+10mA	$\leq$ 0.2%+15mA
Line		≤ 0.2%+5mA	$\leq 0.2\% + 5 \text{mA}$	≤0.2%+10mA	≤ 0.2%+15mA
RIPPLE & NOISE					
Voltage (ı		≤ 10mVrms	≤ 10mVrms	≤ 10mVrms	≤ 10mVrms
Voltage (	mVp-p)	$\leq$ 100mVp-p	≥ 100mVp-p	≥ 100mVp-p	= 10m√ms ≤ 100mVp-p
		20Hz~20MHz	20Hz~20MHz ≤ 0.2%	< 20Hz~20MHz	$\leq 0.3\% + 40mA$
Current (mArms)		≤ 0.2%	<sup>≥</sup> 0.2%	≤0.2%+20mA	≥ 0.2%+40mA
RESOLUTION					
Voltage	≤36V >36V	10mV	10mV	10mV	10mV
Current	>36V 10V	20mV 10mA	20mV 10mA	20mV 20mA	20mV 30mA
Current	20V	10mA	10mA	10mA	20mA
	36V	10mA	10mA	10mA	10mA
	60V	10mA	10mA	10mA	10mA
PROGRAM ACCURACY					
Voltage	≤36V	≤ 0.05%+25mV	$\leq$ 0.05%+25mV	$\leq$ 0.05%+25mV	$\leq$ 0.05%+25mV
	>36V	≤ 0.05%+50mV	$\leq$ 0.05%+50mV	$\leq$ 0.05%+50mV	$\leq$ 0.05%+50mV
Current	10V	≤ 0.2%+30mA	≤ 0.2%+30mA	≤ 0.2%+60mA	$\leq$ 0.2%+90mA
	20V	≤ 0.2%+30mA	$\leq$ 0.2%+30mA	$\leq$ 0.2%+30mA	$\leq$ 0.2%+60mA
	36V	≤ 0.2%+30mA	≤ 0.2%+30mA	≤ 0.2%+30mA	$\leq$ 0.2%+30mA
	60V	≤ 0.2%+30mA	$\leq$ 0.2%+30mA	$\leq$ 0.2%+30mA	$\leq$ 0.2%+30mA
READBACK ( Meter ) RESOLUTION					
Voltage	,	Same as Resolution	Same as Resolution	Same as Resolution	As Resolution
Current		Same as Resolution	Same as Resolution	Same as Resolution	As Resolution
READBACK ( Meter ) ACCURACY					
Voltage		Same as Program Accuracy Same as Program Accuracy	Same as Program Accuracy Same as Program Accuracy	Same as Program Accuracy Same as Program Accuracy	As Program Accuracy As Program Accuracy
Current			Same as Program Accuracy	Same as Program Accuracy	As Program Accuracy
READBACK TEMP. COEFFICIENT  Voltage (25 $\pm$ 5°C) $\leq$ 100ppm/°C $\leq$ 100ppm/°C $\leq$ 100ppm/°C $\leq$ 100ppm/°C					
RESPONSE ( Rise			≤ 100ppm/ °C	≤100ppm/°C	≤100ppm/°C
	•		<150.6	<150.0	<150.0
Voltage L		≤150mS	≤150mS	≤150mS (≤05% mating land)	≤150mS (≤05% ration land)
(10%~90		(≤95% rating load) ≤150mS	(≤95% rating load) ≤150mS	(≤95% rating load)	(≦95% rating load) ≦150mS
Voltage Down		≥130m3   (≥10% rating load)	≥130m3 (≥10% rating load)	≤150mS (≥ 10% rating load)	≤150ms (≥10% rating load)
(90%~10%)		, ,		(= 10% rating load)	(=10% rating load)
CV Mode		( 50% Step Load Change < 2mS		< 2mc	≤2mS
PROTECTION		_ 2ms	≤ 2mS	≤2mS	_ 2m3
					\ /
OVP/OCP/OTP Rush Current		V	V V	V V	
OUTPUT ON/OFF		•	V	V	V
JULIFOT ON/OFF		CONTROL	V	V	V
INTERFACE		V	<b>v</b>	₹	<u> </u>
Standard : RS-232C; Optional : GPIB					
POWER SOURCE					
AC90V~250V, 50/60Hz					
DIMENSIONS & WEIGHT					
Similare		108(W)x142(H)x393(D)	108(W)x142(H)x393(D)	188(W)x142(H)x393(D)	268(W)x142(H)x393(D)
		mm; Approx. 3.3kg	mm; Approx. 3.3kg	mm; Approx. 6.2kg	mm; Approx. 9.3kg
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## **Rear Panel**



# **PSH-Series**

#### ORDERING INFORMATION PSH-2018A 360W Programmable Switching D.C. Power Supply PSH-3610A 360W Programmable Switching D.C. Power Supply PSH-3620A 720W Programmable Switching D.C. Power Supply PSH-3630A 1080W Programmable Switching D.C. Power Supply ACCESSORIES: User manual x 1, Power cord x 1 Opt. 01: GPIB Interface (Factory Installed) **OPTIONAL ACCESSORIES GRA-403** Rack Adapter Panel (19", 4U) GTL-232 RS-232C Cable, 9-pin Female to 9-pin, null Modem for Computer GTL-251 GPIB-USB-HS (High Speed) FREE DOWNLOAD **PC Software** PC Software including Data Log; Remote Control Software Labview Driver Driver

Note : When Opt.01 GPIB interface is ordered, the standard interface RS-232C will be deleted.