

# Datasheet

## Multi-range D.C. Power Supply

Stock No. : Model :

123-3573	<b>IPS 30-36</b>	123-3574	<b>IPS 30-72</b>	124-0235	<b>IPS 30-108</b>
124-0236	<b>IPS 80-13.5</b>	124-0237	<b>IPS 80-27</b>	123-3575	<b>IPS 80-40.5</b>
		2521601	<b>IPS 40-54</b>		



### FEATURES

- Output Power Rating : 360W~1080W
- Constant Power Output for Multi-Range ( V & I ) Operation
- C.V/C.C Priority ; Particularly Suitable for the Battery and LED Industry
- Adjustable Slew Rate
- Series and Parallel Operation ( 2 units in Series/3 units in Parallel Maximum)
- High Efficiency and High Power Density
- 1/2, 1/3, 1/6 Rack Mount Size Design  
( EIA/JIS Standard ) for 360W, 720W, 1080W
- Standard Interface : LAN, USB, Analog Control Interface
- Optional Interface : GPIB-USB Adaptor
- LabVIEW Driver

The existing IPS-Series of products had been launched seven models with the combination of 30V, 40V and 80V rated voltages and the same output power capacity. The multi-range feature allows the flexible and efficient configuration of voltage and current within the rated power range.

The IPS-Series is a regulated switching D.C. power supplies with high voltage and high current output. It operates under Constant Current (C.C.) mode or Constant Voltage (C.V.) mode within a wide operating range limited by the output power. To increase power output capacity, the IPS-Series can be connected in Series mode to perform double voltage rating or in parallel mode to perform triple current rating for each model. With Multi-Range feature and Series/Parallel connection capability, the IPS-Series is a high power density and costeffective

equipment for the tests of DC power modules, batteries and components in a broad power range.

IPS-Series provides C.C./C.V. Priority Mode, Adjustable Slew Rate, and Output On/Off Delay Functions. C.C. Priority mode can be selected to inhibit the automatic-switch-to-CV-mode caused while the voltage or current is deviated from the original settings. The C.C. and C.V. Priority Selection enables the power supply to prevent the damage of DUT caused by inrush current. Thus, the adjustable slew rate enables user to adjust the rise and fall time of the Voltage and Current, to gain the faster response of the level change. Also, output On/Off delay feature enables users to program the time delays of ON/OFF for each one in case of multiple power supplies are used at the same time.

The IPS-Series is equipped with a bleed resistor at the power output terminal, which can quickly discharge the capacitors load when the power supply is turned off and the load is disconnected. Without a bleed resistor, the power

output terminal may remain charged with the filter capacitors for some time and be potentially hazardous to the users. In the ATE (Automatic Test Equipment) system, the bleed resistor facilitates the IPS-Series quickly being discharged and returned to the “ready” status for the next run after each test. Furthermore, the OVP and OCP protections were equipped within the IPS-Series. The range of setting condition of both OVP and OCP is from 10% to 110% of rated voltage/current. When any of the protection levels is triggered, the power output will be switched off to protect the DUT.

The panel lock feature is designed to avoid the original settings being changed accidentally. When the power supply turns into PC remote control mode, the panel will be locked automatically; or preventing any operation mistake, users

can manually press the “Lock/Local” key to lock the panel. Likewise, if users would like to unlock the panel, then they can press the same button to dissolve the locked panel.

The IPS-Series provides USB Host/Device and LAN interfaces as standard and GPIB-USB as optional. The LabView driver and the Data Logging PC software are supported on all available interfaces. An analog control/monitoring connector is also accessible at the rear panel for external control of power On/Off and external monitoring of power output Voltage and Current.

## APPLICATIONS

- Laboratories and Educational Facilities
- Product Testing and Quality Assurance
- Service Operation and Post-Sales Support
- Product Development and Debugging

SPECIFICATIONS							
	IPS 30-36	IPS 30-72	IPS 30-108	IPS 40-54	IPS 80-13.5	IPS 80-27	IPS 80-40.5
OUTPUT RATING							
Voltage	0 ~ 30V	0 ~ 30V	0 ~ 30V	0 ~ 40V	0 ~ 80V	0 ~ 80V	0 ~ 80V
Current	0 ~ 36A	0 ~ 72A	0 ~ 108A	0 ~ 54A	0 ~ 13.5A	0 ~ 27A	0 ~ 40.5A
Power	360W	720W	1080W	720W	360W	720W	1080W
REGULATION(CV)							
Load	0.05% of rating +5mV						
Line	0.05% of rating +3mV						
REGULATION(CC)							
Load	0.1% of rating +5mA						
Line	0.1% of rating +5mA						
RIPPLE & NOISE (Noise Bandwidth 20MHz; Ripple Bandwidth=1MHz)							
CV p-p	60mV	80mV	100mV	80mV	60mV	80mV	100mV
CV rms	7mV	11mV	14mV	11mV	7mV	11mV	14mV
CC rms	72mA	144mA	216mA	108mA	27mA	54mA	81mA
PROGRAMMING ACCURACY							
Voltage	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV
Current	0.1% +30mA	0.1% +60mA	0.1% +100mA	0.1% +50mA	0.1% +10mA	0.1% +30mA	0.1% +40mA
READBACK ACCURACY							
Voltage	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV	0.1% +10mV
Current	0.1% +30mA	0.1% +60mA	0.1% +100mA	0.1% +50mA	0.1% +10mA	0.1% +30mA	0.1% +40mA
RESPONSE TIME							
Raise Time	50ms	50ms	50ms	50ms	50ms	50ms	50ms
Fall Time(Full Load)	50ms	50ms	50ms	50ms	50ms	50ms	50ms
Fall Time(No Load)	500ms	500ms	500ms	500ms	500ms	500ms	500ms
Load Transient	1ms	1ms	1ms	1ms	1ms	1ms	1ms
Recover Time (Load change from 50~100%)							
PROGRAMMING RESOLUTION (By PC Remote Control Mode)							
Voltage	1mV	1mV	1mV	1mV	2mV	2mV	2mV
Current	1mA	2mA	3mA	2mA	1mA	2mA	3mA
MEASUREMENT RESOLUTION (By PC Remote Control Mode)							
Voltage	1mV	1mV	1mV	1mV	2mV	2mV	2mV
Current	1mA	2mA	3mA	2mA	1mA	2mA	3mA
SERIES AND PARALLEL CAPABILITY							
Parallel Operation	Up to 3 units including the master unit						
Series Operation	Up to 2 units including the master unit						
PROTECTION FUNCTION							
OVP	10% to 110% of rated output voltage range						
OCP	10% to 110% of rated output current range						
OHP	Activated by elevated internal temperatures						
FRONT PANEL DISPLAY ACCURACY							
Voltage	0.1%±20mV	0.1% +20mV	0.1% +20mV	0.1% +20mV	0.1% +20mV	0.1% +20mV	0.1% +20mV
Current	0.1%±40mA	0.1% +70mA	0.1% +100mA	0.1% +60mA	0.1% +20mA	0.1% +40mA	0.1% +50mA
ENVIRONMENT CONDITION							
Operation Temp	0°C ~ 50°C						
Storage Temp	-25°C ~ 70°C						
Operating Humidity	20% ~ 85% RH						
Storage Humidity	90% RH or Less						
READ BACK TEMP WEFFICIENT							
Voltage	100ppm/°C						
Current	200ppm/°C						
OTHER							
Analog Control	Yes						
Interface	USB/LAN/GPIB(Optional)						
Fan	With thermal sensing control!						
POWER SOURCE	85VAC~265VAC, 50/60Hz, single phase						
DIMENSIONS & WEIGHT	71 (W)x124(H) x350(D) mm ; Approx. 3kg	142(W)x124(H) x350(D)mm ; Approx. 5.3kg	214(W)x124(H) x350(D) mm ; Approx. 7.5kg	142(W)x124(H) x350(D)mm ; Approx. 5.3kg	71 (W)x124(H) x350(D) mm ; Approx. 3kg	142(W)x124(H) x350(D) mm ; Approx. 5.3kg	214(W)x124(H) x350(D) mm ; Approx. 7.5kg

Specifications subject to change without notice.

ORDERING INFORMATION	
IPS 30-36	(0~30V/0~36A/360W) Multi-Range DC Power Supply
IPS 30-72	(0~30V/0~72A/720W) Multi-Range DC Power Supply
IPS 30-108	(0~30V/0~108A/1080W) Multi-Range DC Power Supply
IPS 80-13.5	(0~80V/0~13.5A/360W) Multi-Range DC Power Supply
IPS 80-27	(0~80V/0~27A/720W) Multi-Range DC Power Supply
IPS 80-40.5	(0~80V/0~40.5A/1080W) Multi-Range DC Power Supply

ACCESSORIES	
User Manual x 1, GTL-123 Test Lead x 1, Power Cord x 1 (Region dependent), GTL-240 USB Cable " L " Type x 1, PSW-004 Basic Accessories Kit x 1	
Includes : M4 Terminal screws and washers x 2, Air Filter x 1, Analog control protection dummy x 1, Analog control lock lever x 1, M8 terminal bolts, nuts and washers x 2,	
OPTIONAL ACCESSORIES	
PSW-001 Accessory Kit	GUG-001 GPIB to USB Adaptor
PSW-002 Simple IDC Tool	GRA-410-J Rack Mount Kit (JIS)
PSW-003 Contact Removal Tool	GRA-410-E Rack Mount Kit (EIA)
PSW-005 Cable for 2 Units of IPS-Series in Series Mode Connection	GET-001 Extended Terminal (MAX. 40A)
PSW-006 Cable for 2 Units of IPS-Series in Parallel Mode Connection	
PSW-007 Cable for 3 Units of IPS-Series in Parallel Mode Connection	