ARTESYN iLS600 and iLS600-R SERIES

Intelligent Laboratory Power

600W Bench Programmable Power Supplies



iLS600



iLS600-R

Advanced Energy's Artesyn iLS600 and iLS600-R series are programmable DC power supplies with a single output that offers output power to 600 watts. With 12-bit D/A & A/D converters embedded, the power supplies come with the capability of reporting voltage and current very accurately. The iLS600 and iLS600-R series provide convenient digital rotary controls for voltage and current adjustment and the power supplies also come with front or rear ports that allow remote control via USB, Ethernet, and analog control inputs. iLS600 series come with front ports while iLS600-R series come with rear ports. Both iLS600 and iLS600-R series are LXI certified, details for using this interface can be found in our Programming Manual.

SPECIAL FEATURES

- 600W with extended range
- LXI certified
- 5 models: up to 400V and 33A
- Small, high-density 1U package
- Wireless digital remote sense
- Built-in voltage and current measurement
- Full OCP and OVP protection
- Series and parallel operation

STANDARD USER INTERFACE INCLUDES:

- Ethernet, USB 2.0 and analog
- LXI interface
- Command capability for keysight 603X, sorenson DLM and xantrex XFR
- LabVIEW drivers

SAFETY

- Conforms to UL 60950-1 and UL 62368-1
- Certified to CAN/CSA C22.2 No. 60950-1 & 62368-1

APPLICATIONS

- Test and Measurement
- ATE
- Laboratory
- Research and Development

AT A GLANCE

Total Power:

600 Watts

Input Voltage:

100 - 240 Vac

# of Outputs:

Single

RESOURCE LINKS

Click Here for the Programming Manual

Click Here for the Scripting Manual

Click Here for the User Manual

Click Here for Drivers

©2025 Advanced Energy Industries, Inc.

Downloaded from Arrow.com.

iLS600 and iLS600-R SERIES 600W LXI CERTIFIED PROGRAMMABLE POWER SUPPLIES[6]

iLS600 MODEL:	iLS600-3 / iLS600-3-R	iLS600-5 / iLS600-5-R	iLS600-10 / iLS600-10-R	iLS600-20 / iLS600-20-R	iLS600-40 / iLS600-40-R
Output[1]					
Voltage, Volts	30 V	50 V	100 V	200 V	400 V
Current, Amps	33 A	20 A	10 A	5 A	2.5 A
Power, Watts	600 W	600 W	600 W	600 W	600 W
Output Ripple & Noise[2]					
RMS Constant Voltage	20 mV	100 mV	150 mV	150 mV	50 mV
P-P Constant Voltage	60 mV	100 mV	100 mV	100 mV	200 mV
Regulation					
Load: 10-90% - Voltage	15 mV	25 mV	50 mV	100 mV	200 mV
Load: 10-90% - Current	15 mV	15 mV	15 mV	15 mV	15 mV
Line: 100-132 VAC Input[2,3] - Voltage	15 mV	25 mV	50 mV	100 mV	200 mV
Line: 100-132 VAC Input[2,3] - Current	15 mV	15 mV	15 mV	15 mV	15 mV
Line: 180-260 VAC Input[2,3] - Voltage	15 mV	25 mV	50 mV	100 mV	200 mV
Line: 180-260 VAC Input[2,3] - Current	15 mV	15 mV	15 mV	15 mV	15 mV
Programming Accuracy[1]					
Voltage 0.1%+	15 mV	25 mV	50 mV	100 mV	200 mV
Current 0.1%+	66 mA	40 mV	20 mA	10 mA	5 mA
Measurement Accuracy					
Voltage 0.1%+	15 mV	25 mV	50 mV	100 mV	200 mV
Current 0.1%+	60 mA	40 mA	15 mA	10 mA	5 mA
Transient Recovery Time[3]					
Time	≤1 ms	≤1 ms	≤1 ms	≤1 ms	≤1 ms
Supplemental Characteristics*					
Output response time (settle to within ±1% of the rated output, with a resistive load)					
Up, Full Load, Seconds	0.08 s	0.08 s	0.08 s	0.08 s	0.08 s
Down, Full Load, Seconds	0.08 s	0.08 s	0.08 s	0.08 s	0.08 s
Down, No Load, Seconds	0.50 s	0.50 s	0.50 s	0.50 s	0.50 s
Command Response Time[4], Milliseconds	50 ms				
Data Readback Transfer Time[5], Milliseconds	5 ms				
Remote Sense Compensation Volts/Load Lead	1 V	1 V	2 V	4 V	4 V
Over-Voltage Protection					
Range, Volts	0.5-33 V	0.5-55 V	0.5-110 V	0.5-220 V	0.5-440 V
Accuracy, Volts	0.3 V	0.5 V	1.0 V	2.0 V	4.0 V
Output Ripple and Noise[2], CC rms, Milliamps	7 mA	5 mA	5 mA	5 mA	10 mA
Programming Resolution Voltage 0.05%+	10 mV	25 mV	50 mV	100 mV	200 mV
Measurement Resolution Current 0.05%+	20 mA	20 mA	10 mA	5 mA	2.5 mA
Front Panel Display Accuracy					
Voltage 0.1%+	10 mV	25 mV	50 mV	100 mV	200 mV
Current 0.1%+	33 mA	20 mA	10 mA	5 mA	2.5 mA
Mechanical					
Dimensions	Height 1.73 in. (44 mm) x Width 8.82 in. (224 mm) x Depth 10.30 in. (262 mm)				
Weight	6 lbs. (2.7 Kg)				

Downloaded from Arrow.com.

iLS600 and iLS600-R SERIES 600W LXI CERTIFIED PROGRAMMABLE POWER SUPPLIES (CONTINUED)

Notes
1. Minimum voltage is guaranteed at greater than 1% of the rated output voltage. Minimum current is guaranteed at greater than 1% of the rated output current.
2. Measured with 20 MHz bandwidth and excluding line frequency ripple (see application note AN024 for measurement details).
3. Time for output voltage to recover within 0.5% of its rated output for a load change from 10 to 90% of its rated output current.
   Voltage set point from 10% to 100% of rated output.
4. Add this to the output reopens time to obtain the total programming time.
5. Time to provide data back to the controller using LAN interface (does not include A/D conversion time).
6. iLS600-R series come with rear ports.

* Supplemental characteristics are not warranted but are descriptions of typical performance determined either by design or type testing.

Rotary Controls

The digital rotary controls allow both fine and rapid adjustment of the output voltage and current. They are velocity sensitive so that a slow turn allows fine adjustment of voltage or current and rapid turning quickly adjusts voltage or current over a large range.

Precise voltage and current measurement

Besides the precise output, the PLS600 series also offers the capability to measure voltage & current accurately (read back), saving users the extra expense and space for extra measuring instruments. This capability is available from the display or the readings may be read into the controlling device.

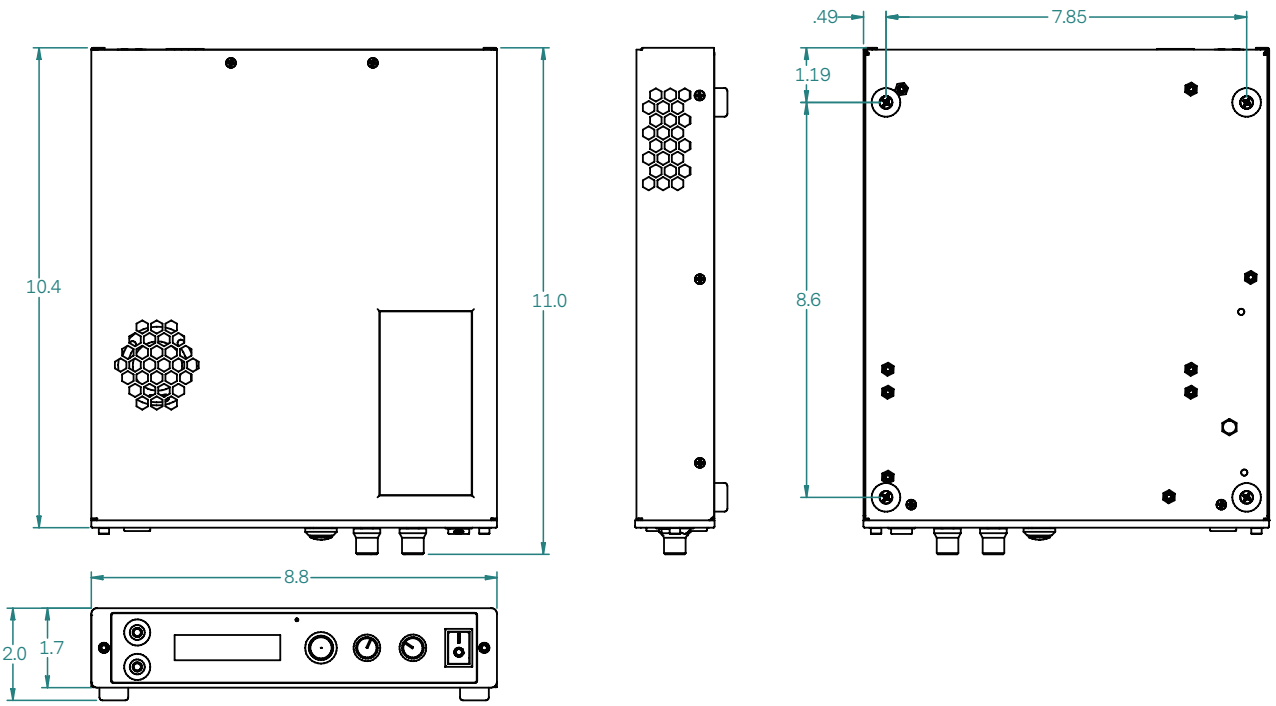
OVP (over voltage protection), OCP (over current protection) and OPP (over power protection) functions

The over voltage protection (OVP), over current protection (OCP) and over power protection (OPP) features limit the maximum output current and voltage to avoid damage to the unit under test (UUT).

Series and parallel capability

Up to 4 units can be connected in (main/satellite mode) and up to 2 units can be connected in series.

iLS600 MECHANICAL DRAWING



Downloaded from Arrow.com.

ILS600 AND ILS600-R FRONT AND BACK VIEW



iLS600 Front



iLS600 Back



iLS600-R Front



iLS600-R Back

Downloaded from Arrow.com.

ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE

For international contact information,
visit advancedenergy.com.

powersales@aei.com (Sales Support)
productsupport.ep@aei.com (Technical Support)
+1 888 412 7832

Specifications are subject to change without notice. Not responsible for errors or omissions. ©2025 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy®, AE® and Artesyn™ are U.S. trademarks of Advanced Energy Industries, Inc.

ENG-iLS600 SERIES-235-01 11.04.25

Downloaded from Arrow.com.