

- Compact Modular DC Power**  
*Uses less rack space compared to other DC supplies of similar power level. Modular construction supports 5, 10 and 15 KW versions.*
- Wide Range of Applications**  
*Telecommunications, automotive, industrial and commercial applications.*
- Built-in Measurements**  
*Voltage, current and power readback capability standard.*
- Fast Transient Response**  
*Capable of driving demanding loads.*
- Parallel / Current Share Capability**  
*Paralleled chassis can deliver up to 75 KW.*
- Standard RS232C Interface and Optional GPIB.**  
*Instrument drivers and software support for easy system integration.*



## Compact Power

The XDS Series packs up to 15 KW of DC power into a 5.25" rack mount chassis. Despite the high power density of this design, the XDS Series provides a low noise, stable output.

A full set of measurements is built-in to provide instant feedback on EUT load characteristics.

The XDS Series offers all the basic DC power supply capabilities needed for a wide range of applications and provides cost effective alternative to larger and more expensive products typically used for these applications.

## Easy To Use Controls

Simple menu driven operation and familiar rotary controls for setting voltage and current ensures that the XDS Series Power Supplies are easy to operate. All front panel controls including the rotary knobs are digitally encoded for long lasting, trouble free operation. The voltage and current control knobs can be used to quickly slew output parameters.

The intuitive front panel controls allow for easy operation of the supply by both novice and experienced users alike.

## Applications

With excellent output regulation and accuracy, the XDS Series DC Power Supplies support a wide variety of DC power applications. Examples include communications, semiconductors, automotive, information technology and industrial. The standard RS232C serial interface supports remote control of all power supply functions and measurements and allows for easy integration into ATE systems. Use of standard SCPI command language syntax and instrument drivers for popular programming environments further ease system integration. An optional GPIB interface is available as well.

## XDS Series - GUI Software

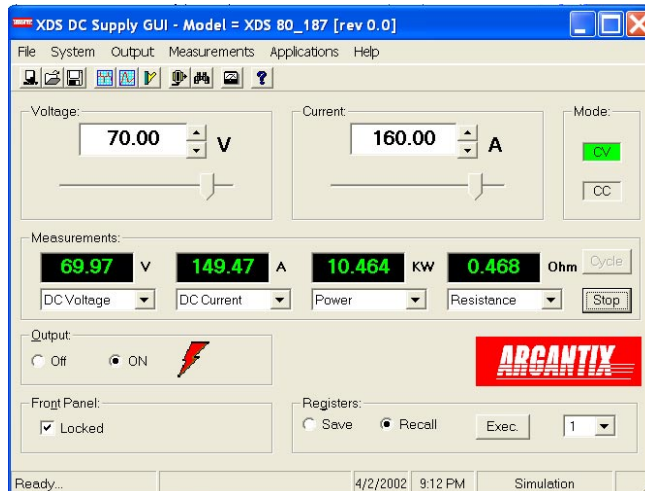
All XDS Series Power Supplies come with Windows GUI software. This GUI program offers additional functionality. This includes the following capabilities:

**Output Sequencing:** Time driven output changes can be programmed, stored and executed under program control. Events include steps, sweeps, drops and surges of voltage and/or current. This allows a variety of power conditions and DC tests to be set up without having to develop application specific code. Multiple setups can be stored on disk.

**Data Logging:** All measurements taken from the DC supply can be recorded to disk in a format that is easily exported to other programs such as MS Excel for analysis and display.

**Pass/Fail Testing:** Automatic output sequencing and data readback with user defined pass/fail criteria. This mode may be used for burn-in or product evaluation applications. A simple to use spreadsheet-like user interface allows entry of time delays, settings, readings and pass/fail limits. Any number of setups can be saved to disk for future use.

The GUI program operates over the standard RS232C interface or the optional IEEE-488/GPIB interface and provides comprehensive on-line help.



Graphical user interface DC supply control program.

## XDS Series - Models<sup>1</sup>

Model	Output		
	Voltage	Current	RMS Noise
XDS 30-167	0-30	0-167	15mv
XDS 30-333	0-30	0-333	15mv
XDS 30-500	0-30	0-500	15mv
XDS 40-125	0-40	0-125	15mv
XDS 40-250	0-40	0-250	15mv
XDS 40-375	0-40	0-375	15mv
XDS 50-100	0-50	0-100	15mv
XDS 50-200	0-50	0-200	15mv
XDS 50-300	0-50	0-300	15mv
XDS 80-62	0-80	0-62	25mv
XDS 80-125	0-80	0-125	25mv
XDS 80-187	0-80	0-187	25mv
XDS 100-50	0-100	0-50	25mv
XDS 100-100	0-100	0-100	25mv
XDS 100-150	0-100	0-150	25mv

Model	Output		
	Voltage	Current	RMS Noise
XDS 150-33	0-150	0-33	25mv
XDS 150-66	0-150	0-66	25mv
XDS 150-100	0-150	0-100	25mv
XDS 300-17	0-300	0-17	100mv
XDS 300-33	0-300	0-33	100mv
XDS 300-50	0-300	0-50	100mv
XDS 400-12	0-400	0-12.5	100mv
XDS 400-25	0-400	0-25	100mv
XDS 400-37	0-400	0-37	100mv
XDS 600-8	0-600	0-8	250mv
XDS 600-17	0-600	0-17	250mv
XDS 600-25	0-600	0-25	250mv

Note 1: Contact factory for availability of models with output voltage ranges not listed here.

# XDS Series - Specifications

## Electrical

### Output

#### Power

Maximum 5, 10 or 15 KW

#### Voltage

Accuracy: 0.3 % FS  
 Resolution: 0.033 % FS  
 Line Regulation: < 0.1% of V range  
 Load Regulation: < 0.1% of V range  
 Transient Response: Voltage will recover to within 2% of V range within 2 msec for 30 % load step.  
 Stability:  $\pm 0.05\%$  of max. rating per 8 hours after 30 mins. warmup period.

#### Current

Accuracy: 0.5% FS at 0-100% of range  
 Resolution: 0.1%-0.033 % (model specific)  
 Line Regulation: < 0.1% of I range  
 Load Regulation: < 0.1% of I range  
 Stability:  $\pm 0.05\%$  of max. rating per 8 hours after 30 mins. warmup period.

#### Input

Voltage: 208 - 10 % to 230 + 10% VAC  
 400  $\pm$  10 % VAC (option -400)  
 480  $\pm$  10 % VAC (option -480)  
 All inputs are L-L, 3 phase, 3-wire plus safety ground.  
 Current RMS: Typical RMS current per phase at low line input voltage.

	Power Level		
Vlow	5 kW	10 kW	15 kW
187 V:	27 A	54 A	81 A
360 V:	15 A	30 A	45 A
432 V:	12A	24 A	36 A

Power Factor: > 0.65  
 Efficiency: > 85 % at full load.

## Measurements

### Voltage

Model	Resolution	Accuracy
XDS 30-XXX	0.01 V	0.05 V
XDS 40-XXX	0.01 V	0.05 V
XDS 50-XXX	0.02 V	0.1 V
XDS 80-XXX	0.02 V	0.1 V
XDS 100-XXX	0.1 V	0.2 V
XDS 150-XXX	0.1 V	0.3 V
XDS 300-XXX	0.1 V	0.5 V

## Measurements Cont.

### Voltage

Model	Resolution	Accuracy
XDS400-XXX	0.1 V	0.5 V
XDS600-XXX	0.2 V	1.0 V

### Current

Current Range	Resolution	Accuracy
0 - 8.3 A	0.003 A	0.013 A
0 - 16 A	0.005 A	0.025 A
0 - 33 A	0.01 A	0.05 A
0 - 66 A	0.02 A	0.1 A
0 - 187 A	0.1 A	0.3 A
0 - 400 A	0.1 A	0.5 A
0 - 600 A	0.2 A	1 A

### Power

Range	Resolution	Accuracy
0 - 5 KW	1 W	0.3 % FS
0 - 10 KW	2 W	0.3 % FS
0 - 15 KW	5 W	0.3 % FS

### Peak Current

Resolution: See current table  
 Accuracy: Same as current + 3 x resolution.

## Protection

Over temperature, short circuit, over current protection

## Controls and Indicator

### Controls

Voltage setting: Digitally encoded rotary knob  
 Current setting: Digitally encoded rotary knob  
 Measurement select: Push button  
 Output on/off: Push button  
 Power on/off: Toggle switch

### Indicators

Display: Dual 7 segment large LED  
 LED's for: Output on/off, cc mode, cv mode, remote, measurements.

## Remote Control

A standard RS232C and analog RPV (0-10 VDC) are included with all XDS Series DC Power Supplies. An optional GPIB/IEEE-488 input is available as well.

### RS232C - Standard

9 pin D-shell connector, 19200 baud, SCPI syntax

### RPV Input - Standard

Input: 0-10 VDC for 0-100% range  
 Connector: 15 pin D-sub.

### Remote Inhibit - Standard

Programmable for default high or low

## XDS Series - Specifications

### -IF Option

#### IEEE-488 Interface

IEEE-488 (GPIB) talker listener.  
Subset: AH1, L3, RL2, SH1, T8  
IEEE-488.2 SCPI syntax

### Environmental

#### Temperature Coefficient

Voltage set point: 0.02%/°C of V Range  
Current set point: 0.03%/°C of I Range

#### Ambient Temperature

Operating: 0° to 40° C / 32° to 104° F  
Storage: -40° to 75° C / -40° to 167° F

#### Humidity

Operating: 0 to 80% RH, non condensing

#### Cooling

Forced air, side and top intake, rear exhaust.

### Mechanical

#### Dimensions

Height: 5.25" / 133.35 mm  
Width: 19" / 482.6 mm  
Depth: 22.19" / 563.3 mm excl. bus bars and cover  
24.74" / 628.4 mm incl. bus bars and cover

#### Weight

Net:	15 KW	10 KW	5KW
	90 lbs.	70 lbs.	50 lbs.
	41 Kg	32 Kg	23 Kg
Shipping (approx.):	125 lbs.	105 lbs.	85 lbs.
	57 Kg	48 Kg	39 Kg

#### Rack Mounting

Unit must be supported by shelf or brackets when mounted in 19" cabinet. No provisions for rack slides are made on instrument.

## XDS Series - Ordering Information

### Ordering Information

#### Model

All XDS Series model numbers specify voltage and current range.

XDS VVV-CCC-LLL-XX-XXXXX

VVV = Voltage

CCC = Current

LLL = Input Line Voltage

XX = Options

XXXXX = Configuration

Refer to table shown for model numbers and configurations.

#### Includes

User manual and programming manual on CD ROM.

Windows GUI software on CD ROM.

RS-232C serial cable

#### Options

-IF GPIB / IEEE-488 interface programming option.  
-400 400 ±10% volt line to line AC input  
-480 480 ±10% volt line to line AC input

#### Optional Configurations

-AUX Auxilliary control.  
-RPV5 Remote voltage programming, 0-5 volt  
-RPV10 Remote voltage programming, 0-10 volt  
-RPC5 Remote current programming, 0-5 volt  
-RPC10 Remote current programming, 0-10 volt

#### Ordering Examples:

Model	Description
XDS 50-100-208	Output voltage range is 50 Vdc, maximum current is 100 Adc, line input is 208 V line to line, three phase. Includes standard RS232C and analog interfaces.
XDS 80-187-400-IF	Output voltage range is 80 Vdc, maximum current is 187 Adc, line input is 400 V line to line, three phase. Includes optional IEEE/RS232 and analog interfaces.

