



Spellman's XLG Series of X-Ray generators are well regulated high voltage power supplies with output voltages to 130kV and very low ripple achieved through the use of advanced resonant conversion techniques. Extremely stable voltage and emission current outputs result in significant performance improvements over previously available technology. The XLG Series provides all the power, control and support functions required for X-Ray applications including a regulated dc filament supply. These units incorporate local and remote programming, monitoring, safety interlock, short-circuit and overload protection.

TYPICAL APPLICATIONS

Plating Measurement
Mineral Analysis
X-Ray Fluorescence

OPTIONS

APT Adjustable Power Trip
AT Arc Trip
SS(x) Non-Standard Slow Start
NSS No Slow Start
IO Instant ON
LL(x) Extra Length HV Cable
SL Slides

FRONT PANEL STATUS INDICATORS:

Overvoltage	Voltage Control Mode
Overtemperature	Current Control Mode
Regulation Error	Interlock Open
Arc	Interlock Closed
HV ON: Red	HV OFF: Green

SPECIFICATIONS

Input Voltage:

115Vac \pm 10%, 50-60Hz single phase or
220Vac \pm 10%, 50-60Hz single phase.
For input current see table on page 2.

Voltage and Current Control:

Local: continuously adjustable from zero to maximum rating via a ten-turn potentiometer with a lockable counting dial.
Remote: 0 to +10Vdc proportional from 0 to full output.
Accuracy: \pm 1%. Input Impedance: 10Mohm.

- **Output Voltages to 130kV**
- **Integrated Ground Referenced Filament Supply**
- **Low Ripple**
- **"Hot Anode"**
- **Positive Polarity**
- **Local & Remote Programming**
- **OEM Customization Available**

www.spellmanhv.com/manuals/XLG

Filament:

Specify at time of order:

FH: 9A, 3V.

FL: 3A, 3V.

Preheat level is 0.45 amps in standby

Voltage Regulation:

Load: 0.005% of full output voltage no load to full load.

Line: 0.005% for input voltage range change.

Current Regulation:

Load: 0.05% of full current \pm 100 μ A from 0 to full voltage.

Line: 0.05% of rated current over specified input range.

Ripple:

0.03% rms below 1kHz.

0.75% rms above 1kHz.

Temperature Coefficient:

100ppm/ $^{\circ}$ C.

Stability:

0.01%/8 hrs after 1/2 hour warm-up.

0.02% per 8 hours (typical).

Cooling:

Free air convection.

Metering:

Digital voltage and current meters (3.5 digits),
1% accuracy.

HV Output Cable:

10' (3.3m) of shielded HV cable removable at rear.

I/O Connectors:

25 pin D-type for control interface with
mating connector provided.

Dimensions:

30 to 60kV:

3.5"H x 19"W x 19"D (8.9cm x 48.3cm x 48.3cm).

80 to 130kV:

3.5"H x 19"W x 24"D (8.9cm x 48.3cm x 61.0cm).

Regulatory Approvals:

Compliant to EEC EMC Directive. Compliant to EEC
Low Voltage Directive. RoHS Compliant.

Electronic Component (Power Source)

XLG series is intended for installation as a component of a system.

It is designed to meet CE standards, with conditions of acceptance often being: customer provided enclosure mounting, EMC filtering, and appropriate protection, and isolation devices. The XLG series is not intended to be operated by end users as a stand-alone device. The XLG series power supply can only be fully assessed when installed within a system, and as a component part within that system.

XLG INPUT CURRENT

MODEL	115Vac	220Vac
3W-30W	0.6A	0.3125A
40W-60W	1.2A	0.625A
70W-150W	3.0A	1.56A
160W-260W	5.25A	2.71A

XLG SELECTION TABLE 0.1mA, 0.2mA, 0.5mA

kV	0.1mA	0.2mA	.5mA
30	XLG30P3*	XLG30P6*	XLG30P15*
35	XLG35P3.5*	XLG35P7*	XLG35P17.5*
40	XLG40P4*	XLG40P8*	XLG40P20*
50	XLG50P5*	XLG50P10*	XLG50P25*
60	XLG60P6*	XLG60P12*	XLG60P30*
80	XLG80P8*	XLG80P16*	XLG80P40*
100	XLG100P10*	XLG100P20*	XLG100P50*
120	XLG120P12*	XLG120P24*	XLG120P60*
130	XLG130P13*	XLG130P26*	XLG130P65*

*Specify FH for High power (27W) filament, FL for Low power (9W) filament.

XLG SELECTION TABLE 1.0mA, 2.0mA, 3.0mA

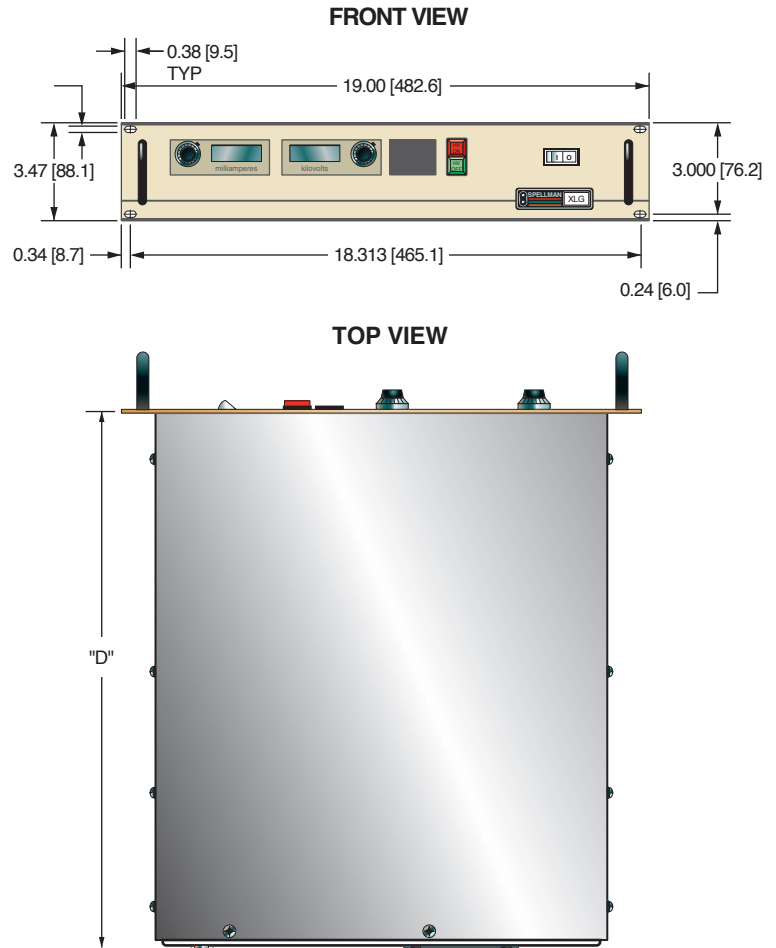
kV	1.0mA	2.0mA	3.0mA
30	XLG30P30*	XLG30P60*	XLG30P90*
35	XLG35P35*	XLG35P70*	XLG35P105*
40	XLG40P40*	XLG40P80*	XLG40P120*
50	XLG50P50*	XLG50P100*	XLG50P150*
60	XLG60P60*	XLG60P120*	XLG60P180*
80	XLG80P80*	XLG80P160*	---
100	XLG100P100*	XLG100P200*	---
120	XLG120P120*	XLG120P240*	---
130	XLG130P130*	XLG130P260*	---

*Specify FH for High power (27W) filament, FL for Low power (9W) filament.

XLG CONNECTOR 25 PIN

PIN	SIGNAL	SIGNAL PARAMETERS
1	Power Supply Common	Signal Ground
2	External Inhibit	Ground=Inhibit, Open=HV On
3	External Interlock	+15V at Open, <15mA at Closed
4	External Interlock Return	Return for Interlock
5	Current Monitor	0 to 10V=0 to 100% Rated Output
6	kV Test Point	0 to 10V=0 to 100% Rated Output
7	+10V Reference	+10V, 1mA Max
8	Remote Current Program In	0 to 10V=0 to 100% Rated Output
9	Local Current Program Out	Front Panel Program Voltage
10	Remote Voltage Program In	0 to 10V=0 to 100% Rated Output
11	Local Voltage Program Out	Front Panel Program Voltage
12	Power Monitor	0 to 10V=0 to 100% Rated Output
13	Remote Power Program In	(Optional)
14	Local HV Off Out	+15V at Open, <25mA at Closed
15	HV Off	Connect to HV OFF for Fp Operation
16	Remote HV On	+15V, 10mA Max=HV Off
17	Remote HV Off Indicator	0=HV On, +15V, 10mA Max=HV Off
18	Remote HV On Indicator	0=HV Off, +15V, 10mA Max=HV On
19	Remote Voltage Mode	Open Collector 50V Max, 10mA Max On=Active
20	Remote Current Mode	
21	Remote Power Mode	
22	Remote PS Fault	0=Fault, +15V, 0.1mA Max=No Fault
23	+15V Output	+15V, 100mA Max
24	Power Supply Common	Signal Ground
25	Shield Return	Shield Return

DIMENSIONS: in.[mm]



BACK VIEW

