



- **OUTPUT VOLTAGES TO 60KV**
- **INTEGRATED FLOATING FILAMENT SUPPLY**
- **LOW RIPPLE**
- **“HOT CATHODE”**
- **NEGATIVE POLARITY**
- **LOCAL & REMOTE PROGRAMMING**
- **OEM CUSTOMIZATION AVAILABLE**

www.spellmanhv.com/manuals/XLF

Spellman's XLF Series of X-ray generators are well regulated high voltage power supplies with output voltages to 60kV 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 XLF Series provides power, control and support functions required for X-ray applications including a regulated ac filament supply referenced to the cathode. These units also incorporate local and remote programming, monitoring, safety interlock, short-circuit and overload protection.

TYPICAL APPLICATIONS

Plastics Sorting
Crystal Inspection
Diamond Inspection

OPTIONS

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

SPECIFICATIONS

Input Voltage:

XLF 600W:
115Vac±10%, 50-60Hz single phase or
220Vac±10%, 50-60Hz single phase.

XLF 1200W:
220Vac±10%, 50-60Hz single phase only.

Voltage and Current Control:

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

Filament:

12 volts @ 5 amps, 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 ±100µA 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/°C.

Stability:

0.01%/8 hrs after 1/2 hour warm-up.
0.02% per 8 hours (typical).

Cooling:

Fan cooled.

Metering:

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

Voltage and Current Monitors:

0 to +10Vdc proportional to rated output.

HV Output:

75kV, 3 conductor Federal Standard X-ray connector.

I/O Connectors:

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

Dimensions:

3.5"H x 19"W x 20"D (8.9cm x 48.3cm x 50.8cm).

Regulatory Approvals:

Compliant to 2004/108/EC, The EMC Directive and
2006/95/EC, The Low Voltage Directive.

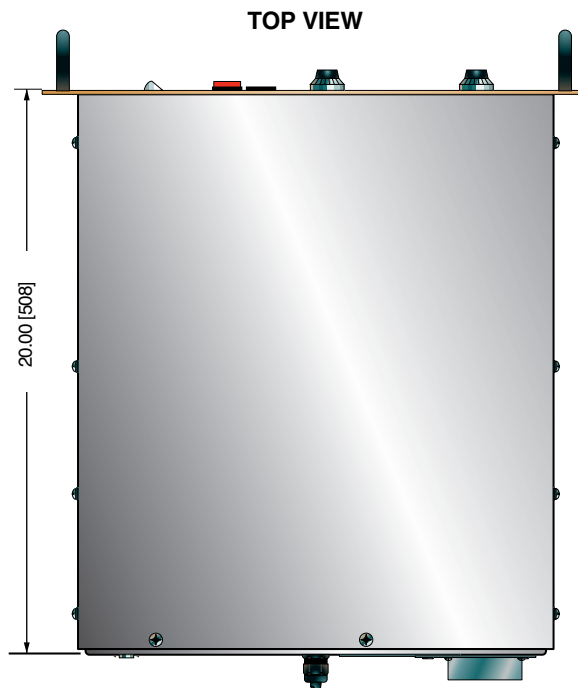
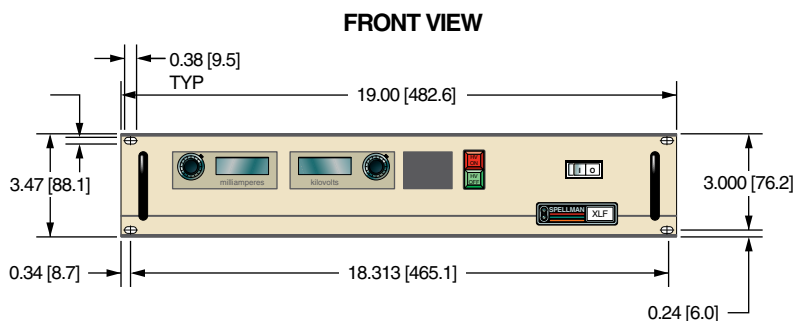
FRONT PANEL STATUS INDICATORS:

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

600W, 1200W XLF SELECTION TABLE

600 Watt			1200 Watt		
kV	mA	Model	kV	mA	Model
30	20	XLF30N600	30	40	XLF30N1200
40	15	XLF40N600	40	30	XLF40N1200
50	12	XLF50N600	50	24	XLF50N1200
60	10	XLF60N600	60	20	XLF60N1200

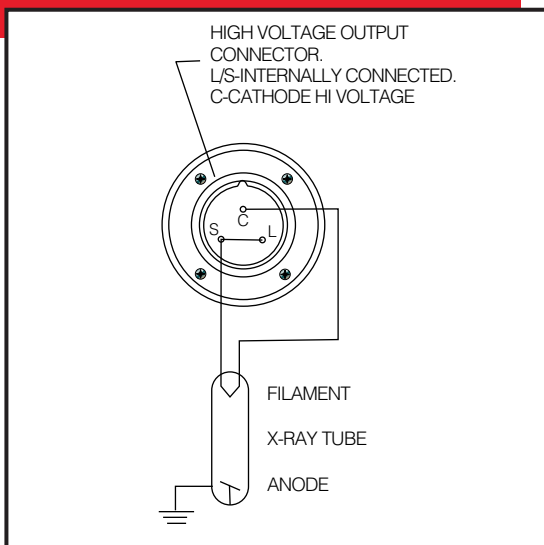
DIMENSIONS: in.[mm]



XLF CONNECTOR 25 PIN

JB1	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	+10Vdc @ 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	
20	Remote Current Mode	Open Collector 50V Max, 10mA Max
21	Remote Power Mode	On=Active
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

HIGH VOLTAGE CONNECTOR PINOUT



BACK VIEW

