

X-ray Power Supplies

XRT Series 50kV 50W

1136-01A-1



■ FEATURES

- Output power 50W(25kV/2mA, 50kV/1mA)
- For grounded Cathode X-ray Tubes
- Long life time with all solid-state components
- Adjustable filament current
- Overvoltage and short circuit protection
- Filament protection at low anode voltage
- Door switch

■ APPLICATIONS

XRT series is ultra compact X-ray power supply module designed for small X-ray tube. HV, filament and bias(optional) outputs are all in one case with X-ray current control function.

Output Voltage (kVdc)	Output Current (mA)	Model *	Input Current (A typ.)	Filament Supply
0 to +50	2	XRT-505-50-□□	3	3.5V / 3.5Adc, Compliance Voltage 4.5V

*Each product of XRT is adjusted most suitably to each X-ray tube. According to the X-ray tube to be used, it is classified by a suffixed number to the model number. When ordering, please advise us the part number and manufacturer of the X-ray tube to be used. Accordingly suitable model to the X-ray tube is selected, and an appropriate part number is to be informed.

■ SPECIFICATIONS

Input Voltage/Current 24V±10%/3A typ.

Anode Voltage Control Local : via internal multi-turn potentiometer
Remote : via external voltage source 0 to 10V
(Accuracy ±1%, Input impedance 1MΩ)

Anode Current Control Local : via internal multi-turn potentiometer
Remote : via external voltage source 0 to 10V
(Accuracy ±1%, Input impedance 1MΩ)

Regulation Line : ±0.01%, Load : ±0.01%

Ripple 0.05%p-p

Stability 0.05%/8Hr

Temperature Coef. 0.01%/°C

Operating Temp. 0°C to + 50°C

Storage Temp. -20°C to +85°C

Humidity 20 to 80%RH(no condensation)

Monitor Output Anode Voltage : 0 to 10V, ±1% accuracy F.S.
output impedance 1kΩ
Anode Current : 0 to 10V, ±1% accuracy F.S.
output impedance 1kΩ
Filament Current : 0 to 3.5V, ±1% accuracy F.S.
output impedance 1kΩ

Remote ON/OFF SHORT : HV/ON OPEN : HV/OFF

Protection Over voltage, Over current protection
Arc, Short circuit, Door switch
Filament protection at low anode voltage

Accessories Instruction manual(1)
24V input connector(1)
Filament bias connector(1)
Signal input connector(D-sub 15pin socket solder type)

Note : These specifications are at the maximum rated output after warm-up unless otherwise specified.
: Specifications in this catalog might be changed.

■ OPTIONS

-LB Bias Supply
-30V to -300V adjustable

-LX HV connector compatible with XR series
Add " L " mark to the model number.
(i.e.) XRT-505-50-LBX

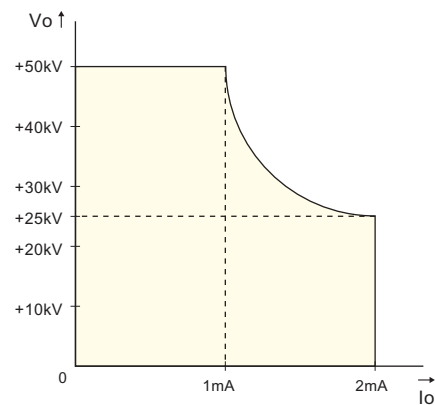
Output Cable output HV cable (flying lead) 1.5m
Part# CN-XRR (1.5)
CN-XR (1.5) (for-LX option)

(When a connector of the suitable X-ray tube is required, please contact us.

■ WEIGHT

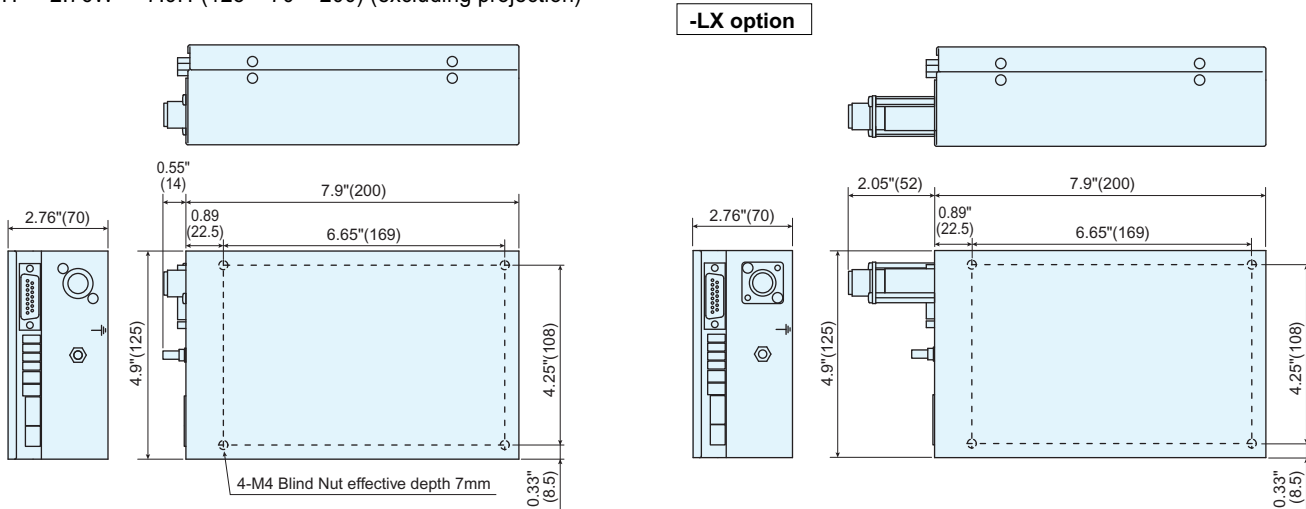
2kg

■ Output Voltage / Current range



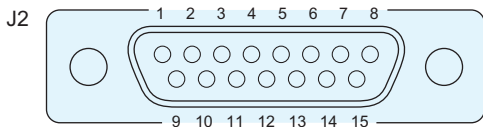
DIMENSIONS inch (mm)

4.9H" x 2.76W" x 7.9H"(125 x 70 x 200) (excluding projection)



Control I/O connector (D-sub 15pin male) Pin Assignments

No.	Function	Description
1	Common	Common for pin 2.3.5.6.7.8.9.10.11.12
2	Voltage monitor	10V / @50kV Output Impedance 1kΩ
3	Current monitor	10V / @2mA Output impedance 1kΩ
4	Remote ON/OFF	
5	Reference voltage output	10V, 1mA max
6	Filament current monitor	1V / @1A Output Impedance 1KΩ
7	Output voltage control (Vcon)	10V / @ 50kV Input Impedance 1MΩ
8	Voltage local setting monitor	10V / @50kV
9	Local filament limit setting monitor	1V / @ 1A
10	Output current control (Icon)	10V / @2mA Input Impedance 1MΩ
11	Current local setting monitor (not usable when LG option)	10V / @2mA
12	External filament limit control	Filament limit setting with external voltage
13	Filament under current status output (FUC)	
14	Low Vcon-in fault status output	
15	GND	GND for 4.13.14



No.1 and No.15 is connected together inside.