

Model : XR303XP



Product specifications

Input voltage

90V~240VAC single phase 1.5A(50,60HZ)

Accelerator supply (Referenced to GND)

Output voltage: -1k~-30kV
 Absolute voltage accuracy: Less than 0.1%
 Set ability: 16bit (0.5V LSB)
 Output current: 500 μ A
 Ripple noise: Less than 50mVp-p
 Stability: 10ppm/1hr after 1hour warm up
 temperature coefficient: 10ppm/ $^{\circ}$ C

Filament supply (Referenced to Accelerator)

Output voltage: 0~5V
 Set ability: 16bit (1mA LSB)
 Output current: 0~3A
 Ripple noise: Less than 10mA p-p @3A
 Absolute current accuracy: \pm 0.01A
 Stability: 50ppm/1hour @ 3.0A
 temperature coefficient: 50ppm/ $^{\circ}$ C

Suppressor supply (Referenced to Accelerator)

Output voltage: -30V~ -1.0kV
 Absolute voltage accuracy: Less than 1.0% @300V
 Set ability: 14bit (0.11V LSB)
 Output current: 150 μ A max
 Ripple noise: Less than 20mVp-p
 Stability: 20ppm/1hr after 1hour warm up
 temperature coefficient: 25ppm/ $^{\circ}$ C

Extractor supply (Referenced to Accelerator)

Output voltage: +0.6kV~+7.0kV
 Absolute voltage accuracy: Less than 0.1% @7.0kV
 Set ability: 16bit (0.2V LSB)
 Output current: 500 μ A max
 Ripple noise: Less than 30mVp-p @4.0kV
 Stability: 20ppm/1hr after 1hour warm up
 temperature coefficient: 20ppm/ $^{\circ}$ C

Electric static lens supply (Referenced to Accelerator)

Output voltage: -0.3k~-15kV
 Absolute voltage accuracy: Less than 0.1%
 Set ability: 16bit (0.1V LSB)
 Output current: 180 μ A max
 Ripple noise: Less than 100mVp-p
 Stability: 20ppm/1hr after 1hour warm up
 temperature coefficient: 20ppm/ $^{\circ}$ C

Custom multiple output power supply for "Nano focus soft X-ray tube" with TFE emitter.

Application

- Nano focused soft X-ray CT
- Nano focused soft X-ray Microscopy

The other specifications

All the outputs provide with the over voltage protection and the over current protection.

External control: Optical isolated RS232C

Interlock: vacuum, thermo, HV-connection

HV connector: Customer specification

Output monitor: Accelerating voltage, Lens voltage

Storage temp range: -5 $^{\circ}$ C~ +40 $^{\circ}$ C

Operating temperature

Limit: +10 $^{\circ}$ C~ +40 $^{\circ}$ C

Humidity: 80% or less

Insulation method: Air insulation (one molding)

Externals size: 480mm(W) \times 450(D) \times 249 (H)

Weight: 33kg

The model "XR303XP" is an integrated multiple output high voltage power supply specifically developed for nano focused X-ray tube with a TFE emitter.

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