



Model : FE103XP

\* This picture is an example adopted as CD-SEM.

### Product specifications

#### Input voltage

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

#### Accelerator supply (Referenced to GND)

Output voltage: -0.1kV~ -10kV  
 Absolute voltage accuracy: Less than  $\pm 0.5\%$   
 Set ability: 16bit (0.5V LSB)  
 Output current: 1mA max  
 Ripple noise: Less than 100mVp-p@10kV  
 Stability: 10ppm/1hr after 1hour warm up  
 temperature coefficient: 5ppm/ $^{\circ}\text{C}$

#### Filament supply (Referenced to Accelerator)

Constant current control  
 Set ability: 16bit (1mA LSB)  
 Output current: 0~3.2A  
 Ripple noise: Less than 5mA p-p @3A  
 Absolute current accuracy:  $\pm 0.01\text{A}$   
 Stability: 20ppm/1hour @ 3.0A  
 temperature coefficient: 10ppm/ $^{\circ}\text{C}$

#### Suppressor supply (Referenced to Accelerator)

Output voltage: -0.03kV~ -0.5kV  
 Absolute voltage accuracy: Less than 0.5% @300V  
 Set ability: 16bit (0.01V LSB)  
 Output current: 150  $\mu\text{A}$  max  
 Ripple noise: Less than 50mVp-p  
 Stability: 50ppm/1hr after 1hour warm up  
 temperature coefficient: 25ppm/ $^{\circ}\text{C}$

#### Extractor supply (Referenced to Accelerator)

Output voltage: +0.2kV~+5.2kV  
 Absolute voltage accuracy: Less than 0.5%  
 Set ability: 16bit (0.1V LSB)  
 Output current: 1mA max  
 Ripple noise: Less than 50mVp-p @4.0kV  
 Stability: 20ppm/1hr after 1hour warm up  
 temperature coefficient: 10ppm/ $^{\circ}\text{C}$

#### Electric static lens supply (Referenced to Accelerator)

Output voltage: +0.3K~+12kV  
 Absolute voltage accuracy: Less than  $\pm 0.5\%$   
 Set ability: 16bit (0.1V LSB)  
 Output current: 200  $\mu\text{A}$  max  
 Ripple noise: Less than 50mVp-p  
 Stability: 20ppm/1hr after 1hour warm up  
 temperature coefficient: 10ppm/ $^{\circ}\text{C}$

optional

Custom multiple output power supply for "TFE-type CD-SEM, Review SEM" .

### Application

- CD-SEM
- Review SEM
- Wafer inspection SEM

### 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:  $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$

Operating temperature

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

Humidity: 80% or less

Insulation method: Air insulation (one molding)

Externals size: 480mm(W)  $\times$  ---(D)  $\times$  --- (H)

Weight:  $\geq 20\text{kg} \sim$

The model "FE103XP" is an integrated multiple output high voltage power supply specifically developed for TFE type scanning electron microscope.

\* Please ask details.  
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