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

Application
- CD-SEM
- Review SEM
- Wafer inspection 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 ±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/℃

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: ±0.01A
- Stability: 20ppm/1hour @ 3.0A
- Temperature coefficient: 10ppm/℃

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 μA max
- Ripple noise: Less than 50mVp-p
- Stability: 50ppm/1hr after 1hour warm up
- Temperature coefficient: 25ppm/℃

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/℃

Electric static lens supply (Referenced to Accelerator)
- Output voltage: +0.3K~+12kV
- Absolute voltage accuracy: Less than ±0.5%
- Set ability: 16bit (0.1V LSB)
- Output current: 200 μA max
- Ripple noise: Less than 50mVp-p
- Stability: 20ppm/1hr after 1hour warm up
- Temperature coefficient: 10ppm/℃

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℃~ +40℃
- Operating temperature
  - Limit: +10℃~ +40℃
  - Humidity: 80% or less
- Insulation method: Air insulation (one molding)
- Externals size: 480mm(W) × ---(D) × ---(H)
- Weight: ≥20kg~

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

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optional

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