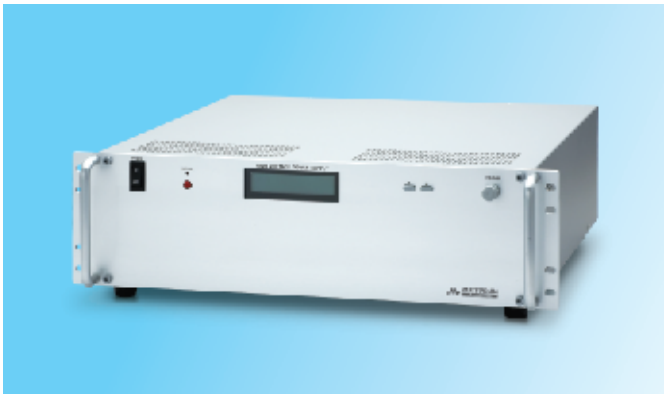
Highly stable output HV power supply

Matsusada Precision

SEM, Semiconductor Inspection System Power Supply

AES/AESS Series

1119-02A



FEATURES

- Ultra Low Ripple and High stability
- Low temperature coefficient, 25ppm/℃ <AESS>
  (Below 10ppm/℃ model is available)
- With Voltage and current monitor
- RS-232C control
  Controllable via RS-232C,485,422,GPIB and USB.

APPLICATIONS

- SEM
  (Scanning Electron Microscope)
- CV SEM
- E-Beam etching
- FIB(Focused Ion Beam)
- Auger Electron Spectrometer

DIMENSIONS

inch(mm)

5.23H × 19W × 19D
(133H × 483W × 483D)

LINEUP

Output Voltage	Output Current	MODEL	Ripple	MODEL	Ripple
0 to 5kV	3mA	AES-5*3	100mVp-p	AESS-5*3	10mVp-p
	6mA	AES-5*6	100mVp-p	AESS-5*6	10mVp-p
0 to 10kV	1.5mA	AES-10*1.5	200mVp-p	AESS-10*1.5	20mVp-p
	3mA	AES-10*3	200mVp-p	AESS-10*3	20mVp-p
0 to 15kV	1mA	AES-15*1	300mVp-p	AESS-15*1	30mVp-p
	2mA	AES-15*2	300mVp-p	AESS-15*2	30mVp-p
0 to 30kV	500μA	AES-30*0.5	500mVp-p	AESS-30*0.5	50mVp-p
	1mA	AES-30*1	500mVp-p	AESS-30*1	50mVp-p

*:P…Positive output N…Negative output

SPECIFICATIONS

Input voltage 85 to 264VAC 47 to 63Hz single phase

Output control Local :Rotary encoder on front panel
Remote :External control voltage 0V to10Vdc
(input impedance 1MΩ)
RS-232C Interface:Optical fiber cable
Speed:Asynchronous 19200bps
Data length :8 bit
Parity:None
Step bit:1 bit
Flow control:None
Setting resolution:16bit

Voltage Regulation Line:0.005% of maximum voltage for ±10% input line change
Load:0.005% of maximum voltage for 10 to 100% load change

Stability AES 20ppm/Hr, 50ppm/8Hr
AESS 10ppm/Hr, 25ppm/8Hr
(Consult us for greater stability)

Temperature Coef. AES 50ppm/℃
AESS 25ppm/℃
(below 10ppm/℃ model is available)

Warm Up 8hr warm up is required.

Metering Voltage:4-digit meter(Accuracy:±1%FS)
Current:4-digit meter(Accuracy:±1%FS)

Monitor Output [Analog] Voltage monitor:10V/maximum output voltage
(output impedance 1kΩ, accuracy ±1%FS)
Current monitor:10V/maximum output current
(output impedance 1kΩ, accuracy ±1%FS)
[RS-232C] Voltage monitor:Resolution 16bit
Current monitor:Resolution 16bit

Protection Protection against over voltage
Output voltage is to be limited at rated maximum output voltage at local / RS-232C Control, limited at 105% of rated maximum output at remote control.
Protection against over current
Output current is to be limited at approx.105% of rated maximum output current with voltage drop down.
Protection against short circuit and arc
Blackout Protection
When recovered from blackout the power supply become stand-by mode.

Interlock Output cut off when interlock terminal on rear panel is open.

Condition Temperature:+15℃ to +35℃(operation)
-20℃ to +60℃(storage)
Humidity :0 to 80%RH(no condensation)

Output connector ·cable Matsusada's low noise connector and cable(detachable)

Accessory
HV output cable 2.5m (1)
AC input cable (1)
CO-opt cable 3m (1)
CO-OPT2-25(optical RS-232C Module) (1)
Instruction manual (1)

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