

# Matsusada Precision

## EQ series 1kV to 30kV / 30W

《USB》《Ethernet》《RS-232C》《RS-485》《GPIB》



EQ series is an ultra compact versatile high voltage power supply with output voltage and current meters. Its compactness and light weight enable to carry lab to lab, and to place anywhere. Ideal supply for quick testing.

### FEATURES

- Ultra compact and easy operation
- High power of 30W
- Voltage and current digital meter

### SPECIFICATIONS

- Input voltage** 115Vac  $\pm 10\%$ , 50/60Hz, single phase 0.5A typ
- Output voltage control** Local : 10-turn potentiometer on front panel  
Remote : External control voltage 0 to 10V (accuracy :  $\pm 2\%$ FS) input imp.  $\geq 10k\Omega$
- Voltage Regulation** Line : 0.01% of max voltage for  $\pm 10\%$  input line change  
Load : 0.01% of max voltage for full load change
- Stability** 0.01% / Hr
- Temperature coef.** 80ppm /  $^{\circ}\text{C}$
- Output display** Output voltage : 3-digit (accuracy  $\pm 2\%$  F.S  $\pm 1$ dgt)  
Output current : 3-digit (accuracy  $\pm 2\%$  F.S  $\pm 1$ dgt)
- Monitor output** Output voltage monitor : 10V / rated voltage (accuracy 2% F.S)  
Output current monitor : 10V / rated current (accuracy 2% F.S)
- Other Functions** HV ON/OFF with external switch (LS)
- Protections** Over voltage (Cut off at 105% of rated output)  
Over current (Current limit with automatic crossover)  
Arc and short circuit
- Temperature** Operating : 0 to + 50 $^{\circ}\text{C}$   
Storage : -20 to + 60 $^{\circ}\text{C}$   
Humidity : 20% to 80%RH(no condensation)
- Accessories** AC input cable with 3pin plug 2.5m (1)  
(Flying lead for model with -L(230V) option)  
Shielded HV output cable (2.5m length)  
Instruction manual

\*Specifications are at the maximum output after a warm-up period.

### LINEUP

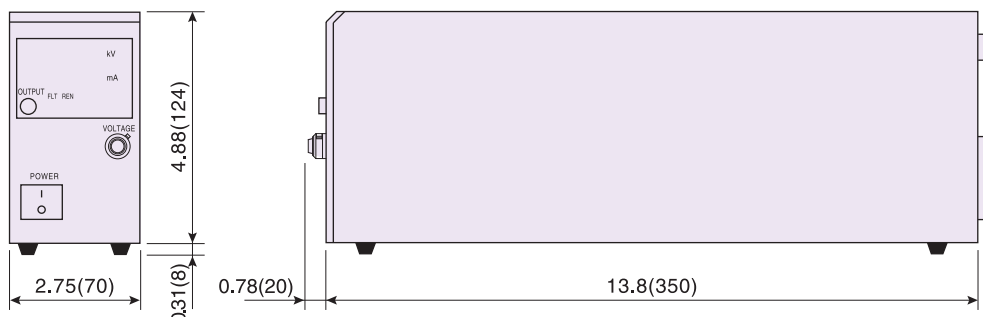
MODEL	Ripple (%p-p)	Output voltage (kV)	Output current (mA)	Output power (W)
EQ-1*30	0.08	0 to 1	30	30
EQ-3*10	0.08	0 to 3	10	30
EQ-10*3	0.08	0 to 10	3	30
EQ-30*1	0.08	0 to 30	1	30

\*P: positive N: negative

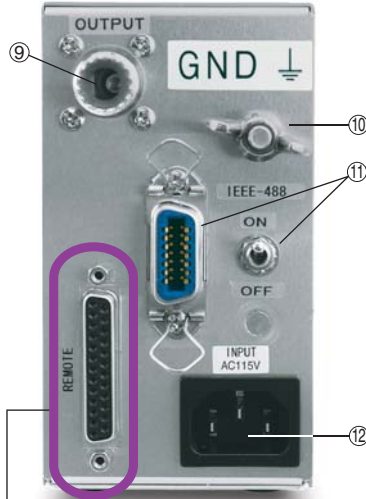
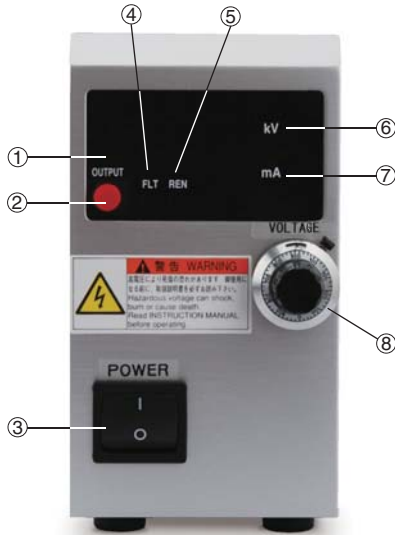
### APPLICATIONS

- ATE(Automatic Test Equipment)
- Electron Beams
- Ion Beams
- Capacitor Charging
- Insulator Testing
- Aging of electronic components
- Nuclear device
- For Biasing
- Electrostatic testing
- All kinds of High-Voltage Testing

### DIMENSIONS inch(mm)



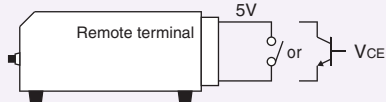
**FUNCTION**



- ① **Output ON display LED**
- ② **OUTPUT ON/OFF switch**  
Output ON/OFF at local mode, Emergency OFF at remote mode, and re-output
- ③ **POWER ON/OFF switch**  
This has priority over all operations.
- ④ **Fault display LED**  
Light up only when Over current protection or Over voltage protection activated
- ⑤ **Remote control display LED**  
Light up when it is in remote mode.
- ⑥ **Output voltage meter**
- ⑦ **Output current meter**
- ⑧ **Output voltage adjustable potentiometer**  
(10-turn, lockable)
- ⑨ **HV output connector**
- ⑩ **GND Terminal(M6)**
- ⑪ **Connector for GPIB interface, and changing-over switch(option)**
- ⑫ **AC inlet**

REMOTE CONNECTOR

REMOTE SWITCH ON/OFF \*1

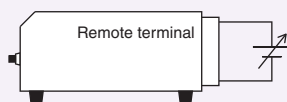


Output	External relay	Open collector
ON	Short	$V_{CE} \leq 0.4V$
OFF	Open	$V_{CE} \geq 2V$

Sink Current  $\geq 10mA$

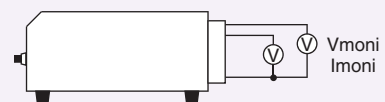
\*1-LG option: When switch ⑪ is on IEEE-488 side, remote switch and output control is not enable from remote terminal, but from only IEEE-488 operation.

OUTPUT CONTROL \*1



Output voltage	Vcon
0 to MAX	0V to 10V Input imp. $\geq 10k\Omega$

OUTPUT MONITOR \*2



Vout : 0V to  $\pm 10V$  (0 to +10V)  
Monitor polarity equals output polarity.  
Iout : 0V to +10V  
Output imp.  $\geq 1k\Omega$

\*2-LG option: Generates output no matter switch ⑪ is on or off.

**OPTIONS**

- LG Connector for USB, RS-232C, RS-485, GPIB interface (need CO series controller)
- LcT Limit the current by output cutting off
- L(230V) Input Voltage AC 230V  $\pm 10\%$

When ordering, suffix the above option mark to the model number.  
<e.g.>EQ-10N3-LcTG(230V)

**INPUT / OUTPUT CABLE**

		125V / 10A (Standard)
Input	CABLE TYPE 1	
Output	CN-□-MHVP	

