



FEATURES

- 60W output power
- High reliability
- 24V DC powered
- Range of outputs available
- Positive or negative polarity
- Short circuit & flashover protection
- Remotely controllable
- V & I control
- V & I monitor
- LED status indication
- Low ripple
- EU RoHS Compliant to 2002/95/EC
- CE marked for EU LV Directive 73/23/EEC

DESCRIPTION

The Series MH60 is a range of versatile high voltage power supply modules suitable for specification in OEM equipment. Powered from 24V DC, they supply up to 60W output and allow full range control and monitoring of output voltage and current. Custom versions can be produced for specific requirements.

SPECIFICATION

Output Power:

60W max output power.

Output Voltage:

0 to 50kV depending on model.

Output Current:

0 to 2mA depending on model.

Input Voltage:

+24V DC ($\pm 10\%$).

Input Current:

4A max.

Polarity:

Positive or negative to order.

Ripple:

Less than 0.05% +10V peak to peak.

Voltage Regulation:

Line: Less than 0.01% for a 10% change in input voltage.

Load: Less than 0.01% $\pm 1V$ no load to full load.

Current Regulation:

Line: Less than 0.01% for a 10% change in input voltage.

Load: Less than 0.01% $\pm 1\mu A$ for a 50% voltage change.

Voltage Control:

0 to 10V for 0 to 50kV accuracy 0.25% $\pm 10V$.

Current Control:

0 to 10V for 0 to 1.2mA accuracy 0.25% $\pm 1\mu A$.

Monitors:

Voltage: 0 to 10V $\pm 0.25\% \pm 5mV$ for 0 to 50kV.

Current: 0 to 10V $\pm 0.25\% \pm 5mV$ for 0 to 1.2mA.

Note: Each monitor has a series output resistor of 1k Ω .

Temperature Coefficient:

100ppm/ $^{\circ}C$ over operating temperature range.

Applies to Voltage Control, Voltage Monitor and Current Monitor.

Stability:

$\pm 0.1\%$ over an 8 hour period after 30 minutes warm-up.

Operating Temperature:

0 to $+45^{\circ}C$.

Storage Temperature:

$-20^{\circ}C$ to $+60^{\circ}C$.

Series MH60

VERSATILE HIGH VOLTAGE POWER SUPPLY MODULES



Humidity:

85% maximum relative humidity non-condensing.

Altitude:

Sea level to 2000m (6500 ft).

Installation Category:

1 (BS EN61010-1)

Pollution Degree:

2 (BS EN61010-1)

Control:

The power supply is operated via the 9-way D-type connector situated on the rear panel. Full control and monitoring functions are available by this method.

Cooling:

Free convection (no fan).

Protection:

The units are fully protected against flashover and continuous short circuit (no trip).

EMC:

The Series MH60 is intended for installation as a component of a system. Basic EMC filtering is provided.

Safety:

The Series MH60 meets the requirements of the Low Voltage Directive (LVD), 2006/95/EC, by complying with BS EN61010 when it is installed as a component part of compliant equipment. It is CE marked accordingly.

RoHS:

The Series MH60 meets the requirements of EU Directive 2002/95/EC on the Restriction of use of certain Hazardous Substances in electrical and electronic equipment (RoHS).

Mechanical Specification:

Dimensions: See outline drawing.

Weight: 3kg (6.6lb).

Casing: Aluminium, clear non-chrome passivate finish.

Outputs and Ordering Information:

The standard range of units available is as follows:

| Model no | Output Voltage | Output Current |
|-----------|----------------|----------------|
| MH60/303* | 30kV | 2mA |
| MH60/403* | 40kV | 1.5mA |
| MH60/503* | 50kV | 1.2mA |

* Add P for a Positive polarity unit or N for a Negative polarity unit.
eg: part number for a 50kV positive unit: MH60/503P

For voltages not listed above, please contact our sales team.

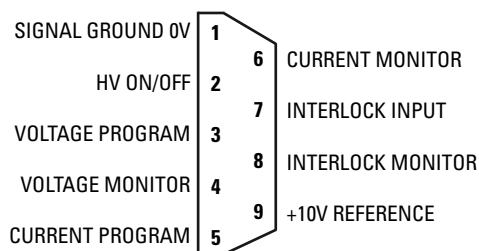
Interface Connection:

Input DC: 2 x ¼" space terminals.

Safety Earth: M5 stud.

HV Output: 50kV unit has 'poke home' connector.

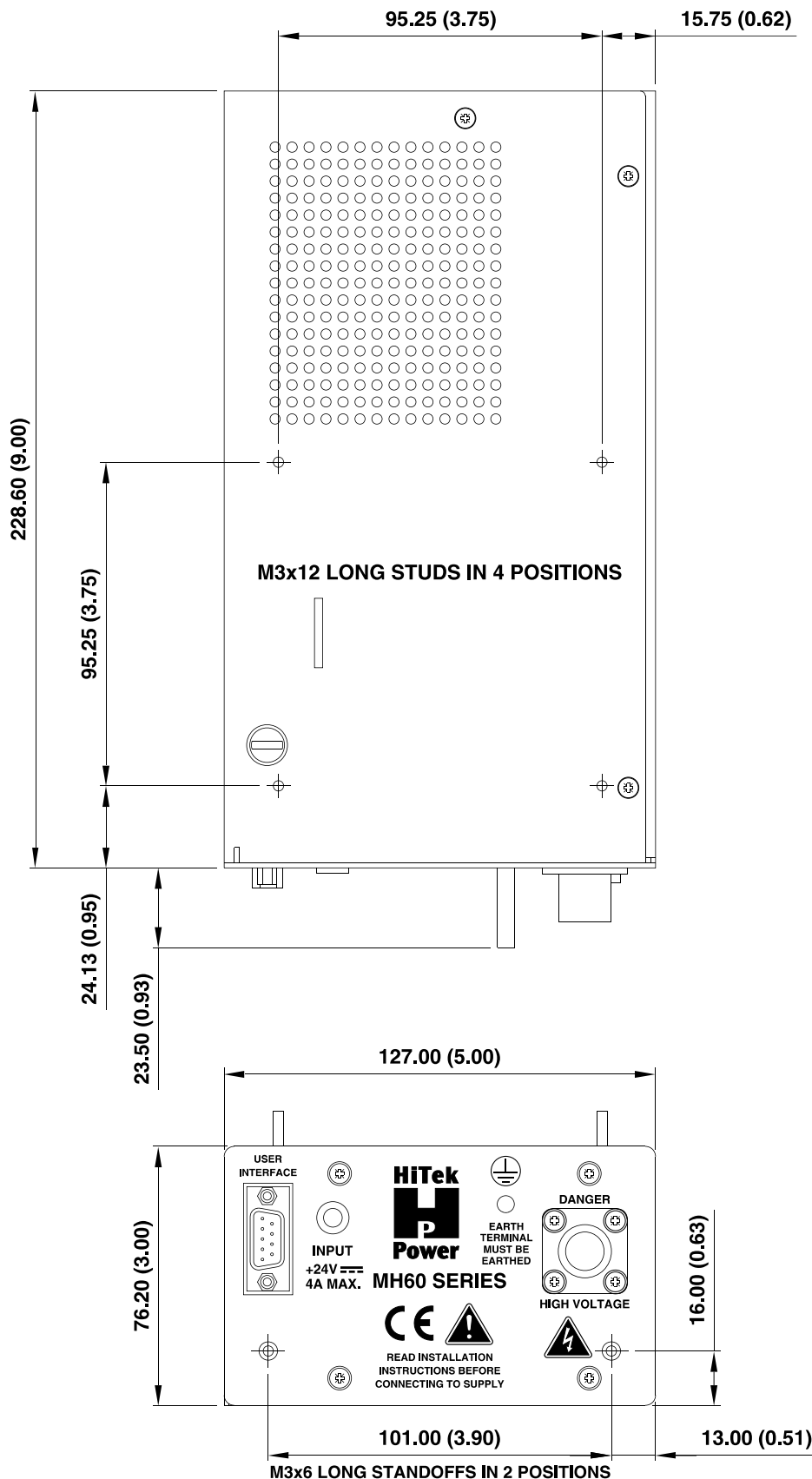
Control interface via a 9-way female D-type connector:



CE These component power supplies meet the requirements of EC Directive 73/23/EEC (LVD).

Series MH60

VERSATILE HIGH VOLTAGE POWER SUPPLY MODULES



Drawing dimensions are in mm (inches)
Design developments may result in specification changes

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