



HITEK POWER® MH60 SERIES
VERSATILE HIGH-VOLTAGE
POWER SUPPLY MODULES





Full range control and monitoring of output voltage and current for OEM equipment

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

Features

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

Typical Applications

- › Wide angle, high definition CRTs
- › X-ray equipment
- › Insulation and materials testing
- › Projection





SPECIFICATIONS	
Output Power	60 W max
Output Voltage	0 to 50 kV depending on model
Output Current	0 to 2 mA depending on model
Input Voltage	+24 VDC ($\pm 10\%$)
Input Current	4 A max
Polarity	Positive or negative to order
Ripple	< 0.05% +10 V peak to peak
Voltage Regulation	Line: < 0.01% for a 10% change in input voltage Load: < 0.01% ± 1 V no load to full load
Current Regulation	Line: < 0.01% for a 10% change in input voltage Load: < 0.01% ± 1 μ A for a 50% voltage change
Voltage Control	0 to 10 V for 0 to 50 kV accuracy 0.25% ± 10 V
Current Control	0 to 10 V for 0 to 1.2 mA accuracy 0.25% ± 1 μ A
Monitors	Voltage: 0 to 10 V $\pm 0.25\%$ ± 5 mV for 0 to 50 kV Current: 0 to 10 V $\pm 0.25\%$ ± 5 mV for 0 to 1.2 mA Each monitor has a series output resistor of 1 k Ω
Temperature Coefficient	100 ppm/ $^{\circ}$ C over operating temperature range Applies to voltage control, voltage monitor and current monitor
Stability	$\pm 0.1\%$ over an 8 h period after 30 min warmup
Operating Temperature	0 to +45 $^{\circ}$ C
Storage Temperature	-20 $^{\circ}$ C to +60 $^{\circ}$ C
Humidity	85% max relative humidity non-condensing
Altitude	Sea level to 2000 m (6500')
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 MH60 series is intended for installation as a component of a system. Basic EMC filtering is provided.
Safety	The MH60 series 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 MH60 series 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	3 kg (6.6 lb)
Casing	Aluminium, clear non-chrome passivate finish

INTERFACE CONNECTIONS

Input DC	2 x ¼" space terminals																				
Safety Earth	M5 stud																				
HV Output	50 kV unit has 'poke home' connector																				
Control interface via a 9-way, female D-type connector:	<table border="0"> <tr> <td>SIGNAL GROUND 0 V</td> <td>1</td> <td rowspan="9"> </td> <td></td> </tr> <tr> <td>HV ON/OFF</td> <td>2</td> <td>6</td> <td>CURRENT MONITOR</td> </tr> <tr> <td>VOLTAGE PROGRAM</td> <td>3</td> <td>7</td> <td>INTERLOCK INPUT</td> </tr> <tr> <td>VOLTAGE MONITOR</td> <td>4</td> <td>8</td> <td>INTERLOCK MONITOR</td> </tr> <tr> <td>CURRENT PROGRAM</td> <td>5</td> <td>9</td> <td>+10 V REFERENCE</td> </tr> </table>	SIGNAL GROUND 0 V	1			HV ON/OFF	2	6	CURRENT MONITOR	VOLTAGE PROGRAM	3	7	INTERLOCK INPUT	VOLTAGE MONITOR	4	8	INTERLOCK MONITOR	CURRENT PROGRAM	5	9	+10 V REFERENCE
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OUTPUTS AND ORDERING INFORMATION

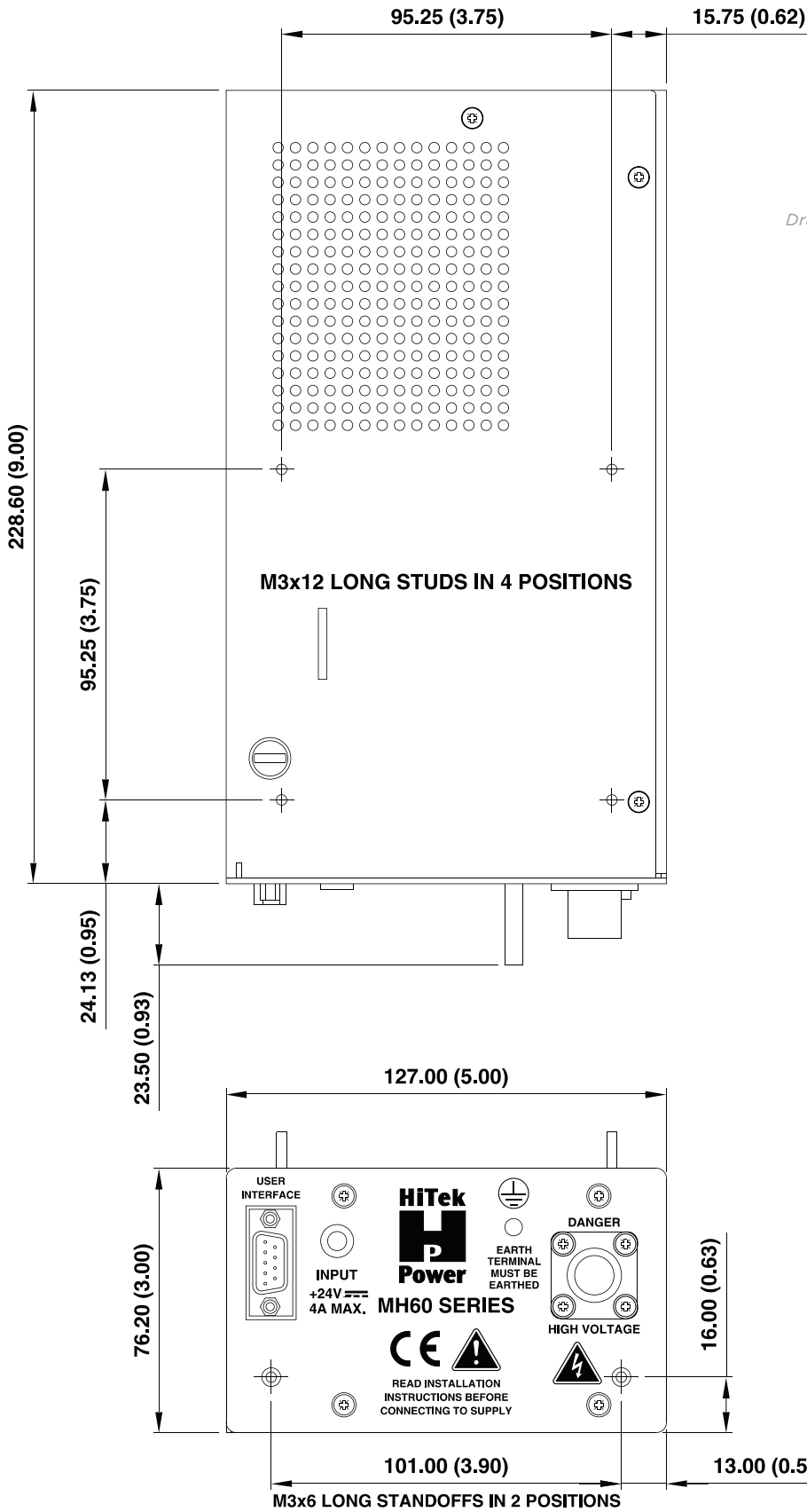
Model	Output Voltage	Output Current
MH60/303*	30 kV	2 mA
MH60/403*	40 kV	1.5 mA
MH60/503*	50 kV	1.2 mA

Accessories

33400206-00	MH60 1M HV Cable
33400206-01	MH60 3M HV Cable
33400206-02	MH60 3M HV Cable

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

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



Drawing dimensions are in mm (inches).





For international contact information, visit advanced-energy.com.