

10kV; 3W
I/O PROPORTIONAL, COMPACT
HIGH VOLTAGE POWER SUPPLIES

▪ **FEATURES**

- I/O Proportional
- Low Noise, High Reliability
- Chassis Mountable Metal Case
- Detachable Input Connector
- Compact and Light Weight

▪ **APPLICATIONS**

- Electrostatic Chuck
- PMT, MCP, Radiation Counter
- Electron Beam / Ion Beam
- Semiconductor Equipment
- MASS Spectrometry
- Electron Microscopes



The HM43 Series is a family of I/O proportional, modular 3W high voltage power supplies used in a wide variety of applications including electrostatic chuck, PMT, MCP and radiation counters. It is suitable for applications where a compact chassis mountable high voltage power supply with less stringent regulation requirements is needed.

The output voltage is linear proportional to the input voltage, starting at less than 2V input.

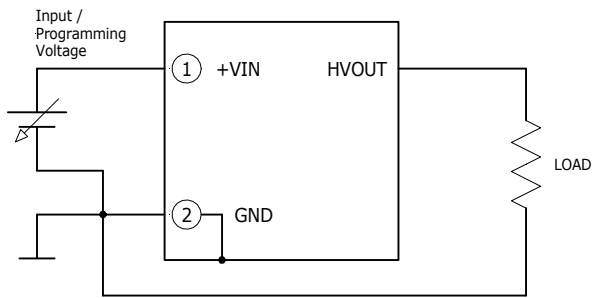
Output Voltage	Output Current	Model		Minimum Load	Ripple
		Positive Polarity Output	Negative Polarity Output		
0.8 – 10kV	0.25mA	HM43-10P-15	HM43-10N-15	40MΩ	< 5V _{pp}

All models are RoHS compliant. Other output voltages available on request.

▪ **SPECIFICATIONS**

- Input Voltage (+V_{IN}): +2V to +15V_{DC}
- Turn-On Voltage: < 2.0V_{DC}
- Input Current: 300mA typ. at rated load
- Load Regulation: 8% typ. for a 50% to 100% load change
- Protection: Arc, momentary output short circuit
- Temperature Range:
 - Operating: -10°C to +60°C
 - Storage: -20°C to +75°C
- Dimensions (LxWxH):
 - 110.0 x 50.0 x 31.0mm³
 - L incl. mounting tabs: 126.0mm
- Input Terminal:
 - 3 pin connector; mating connector: JST VHR-3N or equivalent;
 - crimp contacts for AWG22-18: JST SVH-21T-P1.1
 - for AWG20-16: JST SVH-41T-P1.1
 - Assembled mating connector available on request
- Output Cable:
 - HV flying lead, unshielded, l=500mm
 - Other lengths or assembled output connectors on request
- Operating Conditions:
 - All voltages are referenced to GND.
 - Specifications are at full rated output, rated load, 25°C, after a 1h warm up unless otherwise specified.

CONNECTION DIAGRAM

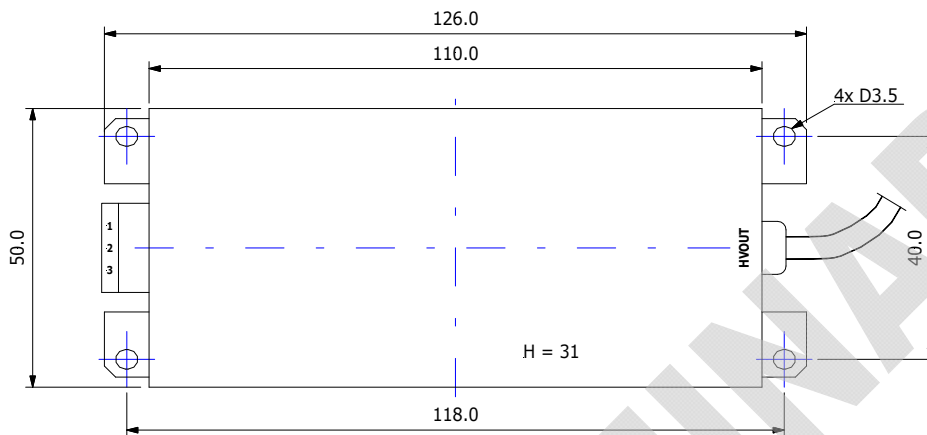


PIN FUNCTION DESCRIPTIONS

Pin No.	Designation	Function
1	+VIN	Input Supply Voltage
2	GND	Ground / Case
3	NC	not connected

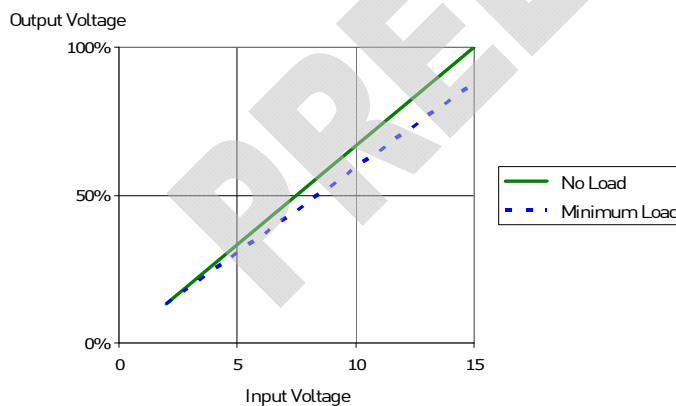
- Pin 2 is connected to the case.
- HV Return has to be connected to the case or pin 2.

DIMENSIONS



- Top view
- All dimensions are in mm; drawings not to scale.
- All values and dimensions without given tolerances are nominal.
- Total length does not include mating connector.

CONTROL CHARACTERISTICS



Disclaimer

The information given in this data sheet is technical data, not assured product characteristics. It has been carefully checked and is believed to be accurate; however, no responsibility is assumed for inaccuracies. The user has to ensure by adequate tests that the product is suitable for his application regarding safety and technical aspects. hivolt.de GmbH & Co. KG does not assume any liability arising out of the application or use of any product described.

Safety Advice

Design, installation and inspection of machinery and devices carrying high voltage require accordingly trained and qualified personnel. Appropriate safety rules and directives must be complied with. Improper handling of high voltage can mean severe injuries or death and may cause serious collateral damage!