1KW HiPIMS-Power Supply **hiP-V**

**Technical Data**

**Output Data (DC, DC-Pulse)**

- **Output-Power:** 1KW
- **Output Voltage:** 0V to -1000V (optional: 1200V, UniPolar / BiPolar)
  (Voltage for nominal pulse and DC-mode)
- **Output Current:** 100A (pulse peak, HiPIMS-Mode)
  max. 3A DC, for <400V in DC-mode
- **Pulse frequency:** 40kHz
- **Duty cycle:** <50% or DC 100%
- **Pulse width:** 5µs to 1000µs or DC
- **Regulation:** Voltage / Current / Power
- **Arc detection / handling:** < 3µs
- **Arc current / voltage level:** Adjustable
- **Voltage stability:** ±2.5%
- **Voltage ripple:** <5%rms

**Projected Applications**

- HiPIMS, Uni-Polar / Bi-Polar / with Superimposed HiPIMS capability
- DC magnetron sputtering
- DC-pulse magnetron sputtering
- DC Bias
- DC-pulse Bias
- HiPIMS Bias- DC
- HiPIMS Bias DC-pulse Bi-Polar / Uni-Polar
- hiPlus (Positive Voltage Reversal, optional)
1KW HiPIMS-Power Supply hiP-V

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Input Line

Nominal voltage: 400Vac 3phase + neutral +/- 15%
Input nominal current: <13 Amps
Dielectric strength: 2500V – 50Hz – 1min.

Environmental Conditions

Ambient temperature: 0ºC to 40ºC
Temperature inside the box: 0ºC to 70ºC
Humidity: up to 90% (the equipment is designed with creepage distances as per EN-61010-1)
Maximum Height: 1200m

Acoustic noise

The equipment will produce an acoustic noise lower than 60dBA measured at a distance of 1 m.

Case

The unit is contained in a 19” rack module, 635mm deep and 9U high (405mm approx.)
The weight is 50kg.
The protection is IP20. It is not protected for water ingress; it is protected against ingress of parts bigger than 12mm. It is intended for indoor use in a laboratory.
The case is forced ventilated; the air ingress is done by the front side and the exhaust by the rear side.

distributed by

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Reference Standards

The 1kW pulsed power supply described in this document is fully compliant, but not only, with the following railway standards:

EN 61000-3-12-2006 Electromagnetic compatibility (EMC) part 3-12: limits for harmonic currents produced by equipment connected to public low-voltage systems with input current greater than 16 a and equal to or less than 75 a per phase

EN 61010-1:2002 Safety requirements for electrical equipment for measurement, control, and laboratory use -- Part 1: General requirements

MIL STD 217 Reliability Prediction of Electronic Equipment

EN 61204-3-2002 Low voltage power supplies, d.c. output -- Part 3: Electromagnetic compatibility (EMC).

EN 61000-6-3-2006 Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light- industrial environments

EN 61000-6-2-2006 Electromagnetic compatibility (EMC) -- Part 6-2: Generic standards - Immunity for industrial environments