

400kW Floor mount

AC-HVDC power supplies

The HPV series offers flexible, reliable, and configurable high voltage power solutions for demanding industrial and research applications. Designed for precision energy delivery, these units excel in electron beam technology, pulse power systems, and other high performance applications.

With voltages from 10kV to 320kV and outputs from 5kW to 400kW, the HPV series provides custom solutions that integrate seamlessly into complex systems. Each unit is engineered to customer specifications for optimal performance, maximum efficiency, and a long service life.

The HPV series delivers highly stable voltage with minimal ripple and fast regulation, making it ideal for precise electron beam processes. Robust arc handling, comprehensive protection features, and an oil-insulated high voltage tank ensures exceptional operational reliability under the most challenging conditions. Flexible PWM and SRC topologies, modular power stages, and optional filament, bias, and surge supplies allow precise tailoring to specific applications.

With intuitive controls, 0 to 10V analog interfaces, digital control commands, and seamless PLC integration, the HPV series is perfectly suited for modern, automated manufacturing environments.



Features

- ▶ Positive or negative output voltages 0VDC to 320kVDC
- ▶ Output power 5kW to 400kW
- ▶ Output resistor to limit arcing current
- ▶ Customizable interlock circuit
- ▶ Customizable arcing behavior
- ▶ Control via analog interface 0VDC to 10VDC = 0 to 100%
- ▶ Short circuit & overload protection

Options

- ▶ Customized floating filament supply
 - ▶ Up to 100A
 - ▶ Up to 50V
- ▶ Customized floating Wehnelt supply
 - ▶ Up to 3.5kVDC
- ▶ Customized floating surge voltage
 - ▶ Up to 2.7kVDC
 - ▶ Up to 1.5A
- ▶ Emission current regulation
- ▶ Customized filter capacitor
- ▶ PWM for lower residual ripple at light loads
- ▶ Control panel for manual control
- ▶ Pre-equipping of PLC
- ▶ Cabinet cooling
- ▶ Oil collection container
- ▶ Customized design for capacitor charging
- ▶ Customized design for pulsed power applications
- ▶ Changeable current measurement range 10 / 100%
- ▶ Air-conditioning or air/water heat exchanger
- ▶ Thermal insulation of control cabinet
- ▶ Device preparation for fast switchable grid voltage
- ▶ 3 Phase 480VAC

Applications



- ▶ High voltage part testing
- ▶ High voltage capacitor chargers
- ▶ Pulse power application
- ▶ Electron beam / EB-generators

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Input voltage		400		VAC	±10%, 3 phase
Control input voltage		230		VAC	±10%, single phase
Efficiency		85		%	
Overvoltage category		II			

Output

Characteristic	Notes & conditions
Output voltage range	Application specific
Output current range	Application specific

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	0		+40	°C	
Storage temperature	0		+70	°C	
Humidity - operating			75	%	No precipitation, dust-free
Humidity - storage			75	%	No precipitation, dust-free
Operating altitude			1000	m	Higher on request
Operation location	Only for indoor areas				

Safety approvals

Certification	Standard	Notes & conditions
CE	Meets all applicable directives	