

## REGULATED HIGH VOLTAGE POWER SUPPLY 1kV to 100kV, 10kW to 20kW

This series of power supplies can generate output that ranges from 1kV to 100kV, 10kW to 20kW and are housed in compact MS cabinets to give a highly regulated output.

## **Features:**

- Precision Regulated
- Low Ripple
- High Stability
- 19" Rack Mountable
- OEM Customization Available



	TECHNICAL SPECIFICATIONS
PARAMETER	SPECIFICATION
Input Voltage	$415V \pm 10\%$ A C, 50Hz, three phase
Output Voltage Range*	1kV DC to 100kV DC
Output Power Range*	10kW to 20kW
Polarity*	Positive / Negative
Line Regulation	≤0.3% for 10% variation in input voltage
Load Regulation	$\leq 0.5\%$ for 0 to 100% load variation
Ripple	≤0.5% rms at full rating
Stability	$\leq 0.3\%$ /hour after 1 hour warm up
Regulation Mode*	Constant voltage – Constant current
Voltage & Current Control*	Local: By 10-turn potentiometers on the front panel Remote: 0 to 10V DC signals for voltage & current control; OR Control through computer interface.
Protections*	Against over load, over voltage, over temperature, phase failure, short- circuit and arc
Remote Controls & Signals through Pluggable Connector / D- Connector (External RS232 Microcontroller Module) *	<ul> <li>10V DC reference</li> <li>10V DC HV enable signal</li> <li>0 to 10V DC signal for voltage &amp; current control</li> <li>0 to 10V DC signal for voltage &amp; current monitoring</li> </ul>
Front Panel	Three phase indicators AC Power ON/OFF MCB HV ON/OFF switch with indication 3 <sup>1</sup> / <sub>2</sub> digit voltage and current meters 10-turn potentiometers for voltage and current control Constant voltage – constant current mode indication LEDs for fault indications
Back Panel	Terminal block for 3 phase input Fuse holder(s) with fuse Terminal for HV output with 10ft of detachable high voltage cable Stud for grounding the unit Remote interface connector*
Topology	High frequency resonant / PWM-controlled switch mode
Switching Device	IGBT
Cabinet	MS cabinet, powder coated

\*Optional. To be specified by the user.



	Remote Interface Connector Configuration			HV	100	K	20	K	Ν	C	Π	Α	R
Pins	28 Pin Pluggable	25 Pin D Connector	Code		1		2	3	4	5	6	7	8
	Connector	(Digital Interface)	Section	Descri	escription		ions	Options Description					
	(Analog Interface)		1	Output		XXX		Value of output voltage					
1	Earth	Earth		Voltage Output Power Output Power		Y							
2	Common	Common	2					Value of output power				r	
3	Interlock	HV Enable	3			W		Watts					
4	HV Enable	Voltage Control Remote											
5	Reference	Current Control Remote		Range		K		Kilo Watts					
6	Common	Over Voltage Control Remote*	4	Polarity		P		Positive					
7	Voltage Control Remote	Over Current Control Remote*				N D		Negative       Dual       Bipolar					
8	Voltage Control Local	Common				B							
9	Common	Voltage Monitor				R		Reversible					
10	Current Control Remote	Current Monitor	5	Mode	Mode			Pulsed					
11	Current Control Local	Reserved Monitor*						Continuous Fixed Sine					
12	Common	Reserved Monitor*			F S								
13	Voltage Monitor	Common				T		Square				-	
14	Current Monitor	Mode Status	6	Input		2		24V DC					
15	Common*	Interlock Status		Voltage Short		Ι		230V					
16	Voltage Mode Status*	HV ON Status	7			J A		415V Shut down					
10	Current Mode Status*	Common		Circuit		B		Shut down & manual					
17	HV ON Status*	PS Fault Status*				D		reset					
18	Common*					С		Shut down & automatic				tic	
		Over Voltage Status* Over Current Status*				D		restart					
20	PS Fault Status*		8			R		-	Constant current Remote				
21	Over Voltage Status*	Over Temperature Status*	0			L		Local					
22	Over Current Status*	Open Circuit Status*		1									
23	Over Temperature Status*	Phase Failure Status*											
24	Open Circuit Status*	en Circuit Status* Reserved Status*											
25	Phase Failure Status*	Common											
26	Common*												
27	Over Voltage Control*												
28	Over Current Control*												

\*Optional. To be specified by the user only as per application's requirement.







For any queries or customization requests contact us at info@ionics.co.in For product line information visit us at <u>www.ionics.co.in</u>

