

## REGULATED REVERSIBLE HIGH VOLTAGE POWER SUPPLY

# 1kV to 150kV, 50W to 30kW

This series of power supplies will have both polarities but either one can be operated at one time.

#### Features:

- Selectable Polarity
- Precision Regulated
- High Stability
- 19" Rack Mountable
- OEM Customization Available



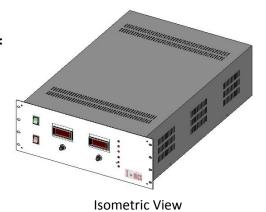
### **TECHNICAL SPECIFICATIONS**

PARAMETER	SPECIFICATION						
Input Voltage	230V $\pm 10\%$ AC, 50Hz, single phase / 415V $\pm 10\%$ AC, 50Hz, three phase						
Output Voltage Range*	1kV DC to 150kV DC						
Output Power Range*	50W to 30kW						
Number of Outputs	1						
Polarity	Reversible. Positive or negative selection is by a switch on front panel upto 50kV models and simply reversing multiplier / rectifier stack above 50kV						
Line Regulation	Upto 0.05% for $\pm 10\%$ variation in input voltage						
Load Regulation	Upto 0.05% for 0 to 100% load variation						
Ripple	Upto 0.1% rms						
Stability	< 0.01%/hour after 1 hour warm up						
Regulating Mode*	Constant voltage – Constant current						
Voltage & Current Control	By 10-turn potentiometers on the front panel						
Protections*	Against over load, short-circuit and arc						
Front Panel	Power ON/OFF switch / MCB with indication HV ON/OFF switch with indication Polarity indication 3½ digit voltage and current meters 10-turn potentiometers for voltage and current control Constant voltage – constant current mode indication						
Back Panel	Socket for mains input with 250V, 10A/20A 3 conductor power cord of 1.5 meters / Terminal block for 3 phase input Fuse holder with fuse Terminal for HV output with 10ft of detachable high voltage cable Stud for grounding the unit						
Topology	High frequency resonant / PWM-controlled switch mode						
Switching Device	IGBT						
Cabinet  • 1kV to 30kV  • 35kV to 150kV	<ul> <li>19" rack, powder coated, 3U to 8U depending on power rating</li> <li>19" rack, powder coated, 3U to 8U depending on power rating followed by a separate multiplier cabinet</li> </ul>						

<sup>\*</sup>Optional. To be specified by the user.



### **Cabinet Details:**





Front Panel



**Back Panel** 

	Remote Interface Connector Configuration									
Pins	28 Pin Pluggable Connector	25 Pin D Connector								
1	Earth	Earth								
2	Common	Common								
3	Interlock	HV Enable								
4	HV Enable	Voltage Control Remote								
5	Reference	<b>Current Control Remote</b>								
6	Common	Over Voltage Control Remote*								
7	<b>Voltage Control Remote</b>	Over Current Control Remote*								
8	<b>Voltage Control Local</b>	Common								
9	Common	Voltage Monitor								
10	<b>Current Control Remote</b>	<b>Current Monitor</b>								
11	<b>Current Control Local</b>	Reserved Monitor*								
12	Common	Reserved Monitor*								
13	Voltage Monitor	Common								
14	<b>Current Monitor</b>	Mode Status								
15	Common*	Interlock Status								
16	Voltage Mode Status*	HV ON Status								
17	<b>Current Mode Status*</b>	Common								
18	HV ON Status*	PS Fault Status*								
19	Common*	Over Voltage Status*								
20	PS Fault Status*	Over Current Status*								
21	Over Voltage Status*	Over Temperature Status*								
22	Over Current Status*	Open Circuit Status*								
23	Over Temperature Status*	Phase Failure Status*								
24	Open Circuit Status*	Reserved Status*								
25	Phase Failure Status*	Common								
26	Common*									
27	Over Voltage Control*									
28	Over Current Control*									

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



Ordering	HV	<u>200</u>	<u>K</u>	01	<u>o</u>	<u>K</u>	<u>N</u>	<u>C</u>	<u>J</u>	<u>A</u>	<u>5</u>	<u>R</u>		
Code	1	2	3	4	,	5	6	7	8	9	10	11		
Section		Descrip	tion		Opt	tions			<b>Options I</b>	Descriptio	n			
	Type of Power Supply				H	I <b>V</b>	High Voltage							
1					H	IC	High Current							
					N	IR	Miniature Module with Remote Control							
					N	ML Miniature Module with Local Control								
		N	IF	Miniature Module with Front Panel Control										
2	Output	Voltage			X	XX	Value of Output Voltage							
3	Output Voltage Range				,	V	Volt							
3	Output	]	K	Kilo Vo	Kilo Volt									
4	Output	Power			Y	YY	Value of Output Power							
5	Output Power Range				1	V	Watt							
					]	K	Kilo Watt							
						P	Positive							
					]	N	Negative							
6	Polarit	Polarity			]	D	Dual							
					]	В	Bipolar							
						R	Reversible							
				,		P	Pulsed							
					(	С	Continuous							
7	Mode	Mode				F	Fixed							
						S	Sine							
			(	Q	Square									
						1	12V DC							
						2	24V DO	24V DC						
8	Input Voltage					3	72V DC	2						
· ·						I	230V AC							
						J	415V AC							
					1	U	115/230V AC							
						4	Shut Down							
9	Short (	Short Circuit				B Shut Down & Manual Reset								
	Short Circuit				(	C Shut Down & Automatic Restart								
					]	D	Consta	Constant Current						
10	Onerst	Operation Mode					Constant Voltage / Constant Current (HV/HC)							
10	Operat		5	Constant Voltage & Constant Current										
					]	L	Local C	Local Control						
11	Control				]	R	Remote Control through D-Connector (RS-232)							
					,	Γ	Remote Control through Pluggable Connector							
							Remote Control through Terminal Block							

For any queries or customization requests contact us at <a href="mailto:info@ionics.co.in">info@ionics.co.in</a>
For product line information visit us at <a href="mailto:www.ionics.co.in">www.ionics.co.in</a>

