



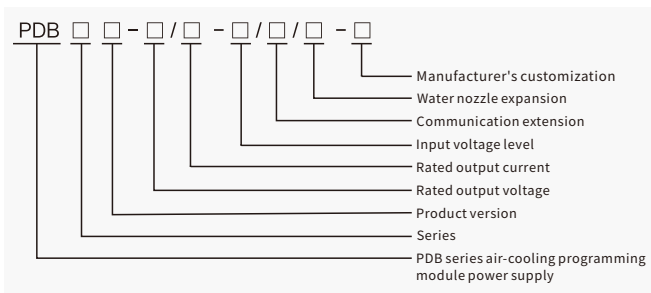
Programmable DC Power Supply

PDB Series
High Efficiency Programmable DC Power Supply

Usages

The PDB Series is a high-precision, high-stability water-cooling DC power supply with a maximum output power of 40kW with a standard chassis design. This series are widely used in lasers, magnet accelerators, semiconductor preparation, laboratories and other demanding industries.

Definitions



Features

- Standard 3U chassis design
- Chinese human-computer interaction interface
- Wide volage design to meet various power grid uses
- IGBT inverter technology and high-speed DSP as the control core
- Automatic switching between constant voltage and current
- Telemetry function to compensate voltage drops on load lines
- High-precision regulation of voltage and current through a digital encoder
- Support over 10 conventional industrial bus communications
- External analog programming and monitoring (0-5V or 0-10V)
- Support multi-machine parallel operation
- Light weight, small size, high power factor and high efficiency
- CE certification qualified

Specifications

Model	PDB 340			
Input voltage	3φAC180~242V (T2)		3φAC342~460V (T4)	
	10 kW	20 kW	30 kW	40 kW
Power				
Output voltage (VDC)	Output current (A)			
6				
8				
10	1000			
12.5	800	1000		
15	667	1000		
20	500	1000		
25	400	800	1000	
30	333	667	1000	
40	250	500	750	1000
50	200	400	600	800
60	167	333	500	667
80	125	250	375	500
100	100	200	300	400
125	80	160	240	320
150	67	133	200	267
200	50	100	150	200
250	40	80	120	160
300	34	67	100	136
400	25	50	75	100
500	20	40	60	80
600	17	34	51	68

Performance index	
Conversion efficiency	84%~90% (Full load)
Power factor	>0.9 (Full load)
Temperature coefficient ppm/°C(100%RL)	100
Dimension	3U case
Cooling mode	Water-cooling
Constant voltage mode	
Noise (20MHz)mVp-p	70~400
Ripple wave (5Hz~1MHz)mVrms	30~75
Maximum compensation voltage V	± 3V
Input adjustment rate (100%RL)	5 × 10 ⁻⁴ (Above 25kW) 1 × 10 ⁻⁴ (Above 25kW)
Load adjustment rate (10~100%RL)	5 × 10 ⁻⁴ (Above 25kW) 3 × 10 ⁻⁴ (Above 25kW)
Stability 8h(100%RL)	1 × 10 ⁻⁴ (7.5V ~ 80V) , 5 × 10 ⁻⁴ (100V ~ 400V)
Constant current mode	
Noise (20MHz)mVp-p	70~400
Ripple wave (5Hz~1MHz)mVrms	30~65
Input adjustment rate (100%RL)	1 × 10 ⁻⁴ (Below 25kW) 5 × 10 ⁻⁴ (Below 25kW)
Load adjustment rate (10~100%RL)	3 × 10 ⁻⁴ (Below 25kW) 5 × 10 ⁻⁴ (Below 25kW)
Stability 8h(100%RL)DCCT	4 × 10 ⁻⁴ (25V ~ 200V) , 1 × 10 ⁻⁴ (250V ~ 750V)