

CLB Series Low Frequency RF Power Supply

Low Frequency Power with Varying Output
Frequency



Performance:

The CLB Series provides 2500 to 12,000 Watts of power at a single frequency in the 20kHz to 2MHz band. The Turbotune Technology within the unit allows frequency tuning by automatically varying its output frequency +/-10% around its nominal frequency. The solid-state design provides precise and repeatable power control, ultra-stable output and low cost of ownership. The design of the CLB is based on Comdel's proven RF amplifier technology.

Applications:

The CLB Series is designed to meet the performance demand in RF-driven plasma systems for semiconductor processing. Applications include etch, RIE, parallel plate, ICP, RF sputtering, CVD and PVD, as well as induction and dielectric heating processes in industrial systems, and solar photovoltaic applications.

Features:

- Any single frequency from 20kHz to 2MHz, varying +/-10%
- Standard power ranges from 2500 to 12,000 Watts
- Phase lock tuning or software algorithm
- Designed to meet IEC and SEMI F47 directives
- Forward or Delivered power mode regulation

Options:

- High accuracy, low output control: +/- 1% of setpoint from 10-100% rated power
- Internal fixed match
- DeviceNet

General Specifications:

- Frequency: Any single frequency from 20kHz to 2 MHz, varying +/-10%
- Line frequency: 50/60 Hz
- Analog power command: 0-10 VDC for 0 to maximum output
- Power accuracy: $\leq 2\%$
- Power linearity: $\leq 2\%$ of setting at power levels above 10% of rated power
- Power repeatability: +/- 1% of setpoint into a 50-Ohm load
- Control I/O connector: Standard: 25-pin subminiature D type (female)
Optional: 15-pin subminiature D type (female)
- Harmonic distortion: Less than -40 dBc
- Reflected power limit: 20% of full scale typical

Facility Specifications:

Model	Power Output	Size	Weight	Line Voltage / Line Current	Cooling	Std. Output Connectors
CLB2500	2500W	5"H x 17"W x 16"D (12.7cm x 43.2cm x 40.6cm)	63 lbs. (29 kg)	208/230/400/440/480VAC; 3Ø 12A/11A/6A/5A/5A typical	Water: 2 GPM (7.6 liters)	N, C, HN, LC or 7/16
CLB3000	3000W	5"H x 17"W x 16"D (12.7cm x 43.2cm x 40.6cm)	63 lbs. (29 kg)	208/230/400/440/480VAC; 3Ø 12A/11A/6A/5A/5A typical	Water: 2 GPM (7.6 liters)	N, C, HN, LC or 7/16
CLB5000	5000W	7"H x 19"W x 22"D (17.8cm x 48.3cm x 56cm)	95 lbs. (43 kg)	208/230/400/440/480VAC; 3Ø 24A/22A/12A/10A/10A typical	Water: 3 GPM (11.4 liters)	N, C, HN, LC or 7/16
CLB6000	6000W	7"H x 19"W x 22"D (17.8cm x 48.3cm x 56cm)	95 lbs. (43 kg)	208/230/400/440/480VAC; 3Ø 24A/22A/12A/10A/10A typical	Water: 3 GPM (11.4 liters)	N, C, HN, LC or 7/16
CLB12K	12,000W	10"H x 16"W x 32"D (25.4cm x 40.6cm x 81.2cm)	145 lbs. (65.9 kg)	208/230/400/440/480VAC; 3Ø 48A/44A/24A/20A/20A typical	Water: 5 GPM (18.9 liters)	LC or 7/16