

CB Series High Frequency RF Power Supplies

Comdel's Superior Design and Reliability in
a Small, Lightweight Package



Palm Pilot used in photos to give perspective—not included with product purchase

Performance:

RF generators from the CB product family are available in power ranges from 50 to 5000 Watts with standard fixed frequencies from 13.56 to 60 MHz. The solid-state design provides precise and repeatable power control, ultra-stable output and low cost of ownership. The design of the CB series is based on Comdel's proven RF amplifier technology.

Applications:

The CB 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:

- Standard power ranges: 50, 200, 300, 500, 600, 1000, 1250, 5000 Watts
- Standard fixed frequencies: 13.56 MHz, 27.12 MHz, 40.68 MHz, 60 MHz
- Patented S-Technology provides ultra-stable output. This stabilizing technology optimizes amplifier performance, reducing power-gain changes caused by plasma impedance fluctuations.
- Designed to meet ETL and SEMI F47 directives
- Forward or Delivered power mode regulation

Options:

- 2 MHz & 3.39 MHz options available, added package height required
- High accuracy, low output control: +/- 1% of setpoint from 10-100% rated power
- Internal fixed match
- Master/Slave operation
- Frequency tuning
- DeviceNet

General Specifications:

- Frequency: Any fixed frequency from 13.56 to 60 MHz, standard
- Frequency stability: +/- 0.005%
- 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: 15-pin subminiature D type (female)
Optional: 25-pin subminiature D type (female)
- Harmonic distortion: Less than -35 dBc
- Reflected power limit: 20% of full scale typical

CB5000



Facilities Specifications:

Model	Power Output	Size	Weight	Line Voltage / Line Current	Cooling	Std. Output Connectors
CB50	50W	4"H x 5"W x 12"D (10.2cm x 12.7cm x 30.5cm)	15 lbs. (6.8 kg)	110/208/230VAC; 1 \emptyset / 0.9A/0.5A/0.4A typical	Water: 0.25 GPM (0.95 liters)	N, C or BNC
CB200	200W	4"H x 5"W x 12"D (10.2cm x 12.7cm x 30.5cm)	15 lbs. (6.8 kg)	110/208/230VAC; 1 \emptyset / 4A/2A/1.5A typical	Water: 0.25 GPM (0.95 liters)	N or C
CB300	300W	4"H x 5"W x 12"D (10.2cm x 12.7cm x 30.5cm)	15 lbs. (6.8 kg)	110/208/230VAC; 1 \emptyset / 5A/3A/2.5A typical	Water: 0.25 GPM (0.95 liters)	N or C
CB500	500W	4"H x 5"W x 12"D (10.2cm x 12.7cm x 30.5cm)	15 lbs. (6.8 kg)	110/208/230VAC; 1 \emptyset / 9A/5A/4A typical	Water: 0.5 GPM (2 liters)	N or C
CB600	600W	4"H x 5"W x 12"D (10.2cm x 12.7cm x 30.5cm)	15 lbs. (6.8 kg)	110/208/230VAC; 1 \emptyset / 11A/6A/5A typical	Water: 0.5 GPM (2 liters)	N or C
CB1000	1000W	5"H x 8"W x 16"D (12.7cm x 20.3cm x 40.6cm)	35 lbs. (16 kg)	185-230VAC; 3 \emptyset / 6A typical	Water: 1 GPM (3.8 liters)	N or C
CB1250	1250W	5"H x 8"W x 16"D (12.7cm x 20.3cm x 40.6cm)	35 lbs. (16 kg)	185-230VAC; 3 \emptyset / 7A typical	Water: 1 GPM (3.8 liters)	N or C
CB5000	5000W	5.25"H x 19"W x 22"D (13.3cm x 48.3cm x 56cm)	95 lbs. (43 kg)	185-230VAC; 3 \emptyset / 28A typical	Water: 3 GPM (11.4 liters)	HN, LC or 7/16