

# POWER AMPLIFIER

## 3062 (1 KW )



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### KEY FEATURES

- Continuous mode operation
- High efficiency
- Protection and backup
- Antenna tuner interface
- Front panel indicators
- Amplifier cooling
- Rack mounting

Codan's power amplifiers are reliable, affordable and designed for use with our transceivers. The 3062 power amplifier provides 1 KW PEP output power suitable for voice and data operation.

### TRANSCEIVER INTERFACE

Codan's Sentry-H 6120-BM and Envoy transceivers provide users with a simple interface to control and operate the 3062 power amplifier. Fault conditions are automatically detected and reported to the user via the transceiver interface. The 3062 power amplifier automatically switches to stand-by mode when it is not being used, or when the connected transceiver is powered off.

### CONTINUOUS MODE OPERATION

The 3062 power amplifier is rated for 100% continuous operation in all HF modes for either voice or data communications.

### HIGH EFFICIENCY

Advanced switch-mode power supplies are used to maximise efficiency of the 3062 power amplifier and reduce heat. This is achieved by varying the supply voltage on the RF transistors depending upon the current load and modulation.

### PROTECTION AND BACKUP

Codan's 3062 power amplifier is fully protected against all load conditions and excessive heat sink temperatures. It is capable of operating with loads of VSWR of up to 3:1 with reduced output power. When excessive VSWR or over temperature occurs, the 3062 Power Amplifier switches to by-pass mode to prevent permanent damage. In by-pass mode, the full output power of the connected transceiver is available as a backup to keep the station operational and on-air.

### ANTENNA TUNER INTERFACE

The 3062 power amplifier provides an interface to control an external antenna tuner or coupler. The attached transceiver automatically performs a tune whenever a new transmit frequency is chosen.

Tuning operates on low power, then the high power output engages after the tune is completed.

### FRONT PANEL INDICATORS

The front panel LED indicators provide a display of fault conditions including internal fault, VSWR and over temperature. An LED bar graph is provided to display either the PEP output power or supply current status.

### AMPLIFIER COOLING

The 3062 power amplifier has extensive heatsinks with fan forced airflow cooling. For increased reliability and durability, the fans are thermostatically controlled and operate on two speeds depending on the heatsink temperature.

### RACK MOUNTING

The 3062 power amplifier and its associated power supply units are designed for use in 19" rack mount configurations and are 5RU high. Front air exhausts allow the 3062 power amplifier to be easily installed in virtually any type of 19" rack.

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### SPECIFICATIONS

<b>Compatible transceivers</b>	Envoy X1 Envoy X2 Sentry-H 6120-BM
<b>RF power output</b>	1 kW PEP $\pm$ 1 dB, 600 W average
<b>Frequency range</b>	1.6 to 30 MHz
<b>Input / output impedance</b>	50 $\Omega$
<b>Operating temperature</b>	-10°C to +60°C
<b>Duty cycle</b>	100% normal speech over full temperature range 100% all modes up to maximum ambient 45°C
<b>Power supply</b>	100 to 240 V AC $\pm$ 10%, 50 / 60 Hz single phase
<b>Power consumption</b>	1.6 kVA (two-tone), 1.8 kVA maximum
<b>Protection</b>	Safe under all load conditions Bypass to 125 W PEP from transceiver in the event of excess VSWR, excess heatsink temperature or internal fault conditions
<b>Spurious &amp; harmonic emissions</b>	Better than 60 dB below PEP
<b>Intermodulation distortion</b>	Better than 32 dB below PEP
<b>Cooling</b>	Fan forced front panel exhaust Thermostatically controlled dual speed
<b>Size</b>	<b>Amplifier (5RU 19" rack):</b> 22.2 cm H x 48.3 cm W x 41.0 cm D <b>Power supply (5RU 19" rack):</b> 22.2 cm H x 48.3 cm W x 41.0 cm D
<b>Weight</b>	Amplifier 23.6 kg, power supply 10 kg
<b>Certifications and type approvals</b>	Australian C-tick AS/NZS 4770:2000 Electrical safety AS/NZS 60950 – EN 60950 CE compliance

Values noted are typical. Equipment descriptions and specifications subject to change without notice or obligation.