CODAN
RADIO COMMUNICATIONS

3061 & 3062 500 W & 1 KW POWER AMPLIFIERS

FEATURES AT A GLANCE

- 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 3061 and 3062 provide 500 W PEP and 1000 W PEP output power respectively, and are suitable for voice and data operation.

TRANSCEIVER INTERFACE

Codan NGT™ Transceivers provide users with a simple interface to control and operate the Power Amplifiers. Fault conditions are automatically detected and reported to the user via the NGT interface. The amplifiers automatically switch to stand-by mode when they are not being used, or when the attached NGT Transceiver is powered off.

CONTINUOUS MODE OPERATION

The Amplifiers are rated for 100% continuous operation in all modes for either voice or data applications.

HIGH EFFICIENCY

Advanced switched mode power supplies are used in the final amplifier output stage to maximise efficiency of the amplifiers 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 Power Amplifiers are fully protected against all load conditions and excessive heat sink temperatures. They are capable of operating with loads of VSWR of up to 3:1 with reduced output power. When excessive VSWR or over temperature occurs, the amplifiers switch to by-pass mode to prevent permanent damage. In by-pass mode, the full output power of the attached NGT Transceiver is available as a backup to keep the station operational and on-air.

ANTENNA TUNER INTERFACE

The Amplifiers provide an interface to control an external antenna tuner or coupler. The attached NGT Transceiver automatically performs a tune when 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 indicators provide a comprehensive 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 Amplifiers have 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

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

SPECIFICATIONS

Compatible Transceivers	Envoy™ X1, X2 NGT *MR, SRx, SR, ASR, AR*
RF power output	**3061:** 500 W PEP ±1 dB, 300 W average **3062:** 1 kW PEP ±1 dB, 600 W average
Frequency range	1.6 to 30 MHz
Input / output impedance	50 Ω
Operating temperature	–10°C to +60°C
Duty cycle	**100%:** normal speech over full temperature range **100%:** all modes up to maximum ambient 45°C
Power supply	100 to 240 V AC ±10%, 50 / 60 Hz single phase
Power consumption	**3061:** 800 VA (two-tone), 900 VA maximum **3062:** 1.6 kVA (two-tone), 1.8 kVA maximum
Protection	Safe under all load conditions Bypass to 125 W PEP from Transceiver in the event of excess VSWR, excess heatsink temperature & internal fault conditions
Spurious & harmonic emissions	Better than 60 dB below PEP
Intermodulation distortion	Better than 32 dB below PEP
Cooling	Fan forced front panel exhaust Thermostatically controlled dual speed
Size	**Amplifier (5RU 19" rack):** 22.2 cm H x 48.3 cm W x 41.0 cm D **Power supply (5RU 19" rack):** 22.2 cm H x 48.3 cm W x 41.0 cm D
Weight	**3061:** Amplifier 15.4 kg, Power supply 6.7 kg **3062:** Amplifier 23.6 kg, Power supply 10 kg

CERTIFICATIONS & TYPE APPROVALS

- Australian C-tick AS/NZS 4770:2000
- Electrical safety AS/NZS 60950 – EN 60950
- CE compliance

CODAN RADIO COMMUNICATIONS

Australia: +61 8 8305 0528 ▪ **US:** +1 571 919 6432
Canada: +1 250 382 8268 ▪ **UAE:** +971 44 53 72 01 **HFsales@codanradio.com**

CODAN **www.codanradio.com**

12-20152-EN Issue 5 11/2015