

Collins Broadcast

The Rock

1-KW AM Transmitter

Model 820D-2 with 125% Modulation



820D-2

Superior sound and simplicity of operation make the Collins 820D-2 1-kW AM transmitter one of the most advanced transmitters on the market. The 820D-2 features straightforward circuitry and clean design to give you reliable, high fidelity

broadcasting in any specified frequency from 535 kHz to 12 MHz. Collins tradition of engineering excellence, outstanding for over 4 decades, is built into this 1 kW transmitter. The 820D-2 is available for international broadcasting as the 820D-2HF.

Features

- Solid state power supplies
- Long life operation
- Compact packaging
- Low power consumption
- Clean design
- Safe, reliable control circuits
- Front panel monitoring
- Optional remote control
- 125% modulation capability
- Lowest distortion
- Ease of access
- Field-proven service
- 2 year warranty
- 24 hour service and parts
- Price and financing flexibility

Facts

Plug-in dual oscillator frequency source • Solid state RF driver with single transistor • Class C stage operation in a common emitter configuration • Power amplifier delivers 1100 watts at output terminal • Transformer-coupled modulator/modulation reactor conventionally modulates plates • Bridge neutralization reduces RF intermodulation products • Plate voltage reduction of power cutback to 550 or 275 watts • Bandpass filter output network design has 3-node filter with inductive coupling between nodes • Node Q distribution selection for proper bandpass response and essentially flat response of modulated transmitter output signal



Specifications

RF Output	Power output capability is 1.1 kW into a 50-ohm unbalanced load. Facilities for reduced power operation are provided at either 550 or 275 watts. Other unbalanced output impedances can be supplied on special order.	Hum and Noise	60 db below 100% modulation
Emission	Amplitude modulation (A3)	Type of Service	Continuous duty, attended or unattended, local or remote control.
Harmonics	73 db below carrier or better	Ambient Temperature Range	-25°C to +45°C
Frequency Range	535 kHz to 12 MHz	Ambient Humidity	Up to 95% R.H.
Frequency Stability	±5 Hz, 0°C to +35°C ±10 Hz, -10°C to +45°C ±20 Hz, -25°C to +45°C	Altitude	Up to 2286 m (7500 ft.)
Audio Input	±10 dBm ±2 dB	Power Source	208/230/240 volts, 50/60 Hz, single phase.
Response	±1 dB from 50 to 10,000 Hz	Filaments	0.4 kW 90% PF
Distortion	Less than 2% from 50 to 10,000 Hz for 95% modulation	Carrier	2.2 kW 90% PF
Carrier Shift	Less than 3% from 0 to 100% modulation	30% Mod	2.5 kW 90% PF
		100% Mod	3.4 kW 90% PF
		Size	173.6 cm H × 91.1 cm W × 62.6 cm D 68 ³ / ₈ in H × 35 ⁷ / ₈ in W × 24 ³ / ₈ in D
		Weight	Approx 500 kg (1100 lb)



Rockwell International

www.rockwell.com

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