

GENERAL

Transmitter Type

FM Broadcast, 100% solid state

Configuration

12 hot swappable RF power modules

24 switching power supplies (2 per RF power module)

Power supplies are hot-swappable

1 low voltage power supply (same as RF power module power supply)

Integrated exciter

Optional

Main/standby exciter

Redundant low voltage power supplies

HD Radio upgradable

UPS Interface

RF Output Connection

3-1/8 inch EIA, female (standard)

4-1/16 inch, female (optional)

RF Output Impedance

50 ohms unbalanced

RF Load VSWR

1.5:1 with automatic power reduction into higher VSWR

Protected from open and short circuits at all phase angles

RF Frequency Range

87.5 MHz to 108 MHz

No tuning required

Frequency Stability

± 200 Hz

Turn Around Loss

Better than 20 dB

Spurious and Harmonic

Meets or exceeds all FCC/IC/RED requirements

AC INPUT

Voltage

180 Vac to 264 Vac, 3-ph., 50/60 Hz (standard)

312 Vac to 457 Vac, 3-ph., 50/60 Hz (optional)

180 Vac to 264 Vac, 1 ph., 50/60 Hz (optional)

Bottom AC input optional; factory configurable; contact Nautel for details

Power Consumption

Analog mode:

45.8 kW at 33.0 kW RF output (46.8 kVA)

Power Factor

Unity Power Factor Corrected (typically 0.98)

Power Line Harmonics

IEEE 519-1992

AUDIO PERFORMANCE

Asynchronous AM S/N Ratio

Better than 60 dB below reference carrier with 100% amplitude modulation using 75 µs de-emphasis (no FM modulation present)

Synchronous AM S/N Ratio

Better than 50 dB below reference carrier with 100% amplitude modulation using 75 µs de-emphasis

ENVIRONMENTAL

Temperature Range

0°C to +50°C

Derate 3°C per 500 m above sea level (2°C per 1000 ft)

Humidity Range

0% to 95% non-condensing

Altitude

0 m to 3000 m (0 ft to 10,000 ft)

Cooling Air Requirements

4163 m³/hr (2450 cfm)

COMPLIANCE

Product complies with:

- ISED specification BETS6 issue 2
- FCC CFR title 47 part 2 and part 73
- Conforms with all essential requirements of Radio European Directive 2014/53/EU

PHYSICAL

Dimensions

Open ventilation configuration:

184.2 cm H x 129.5 cm W x 76.2 cm D (72.5" H x 51" W x 30" D)

Note: total depth 81.3 cm (32") with front hinged panel and air filters installed

Closed ventilation configuration - consult factory

Weight

560 kg (1235 lbs)



RF Output Power and Efficiency

Analog Mode (max/rated)

Analog TPO (kW)

33 / 30

Typical Efficiency

72%

Notes:

Specifications established at rated power unless otherwise noted.

All measurements into 50 ohm resistive load. AC input voltage at nominal level.