



40/100A400

- 40/100 Watts CW
- 10Hz-400MHz
- Class A
- Portable
- Full VSWR-tolerant
- CE & RoHS compliant
- High Efficiency

Features

The Model 40/100A400 is a portable, self-contained, air-cooled, dual-band, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required.

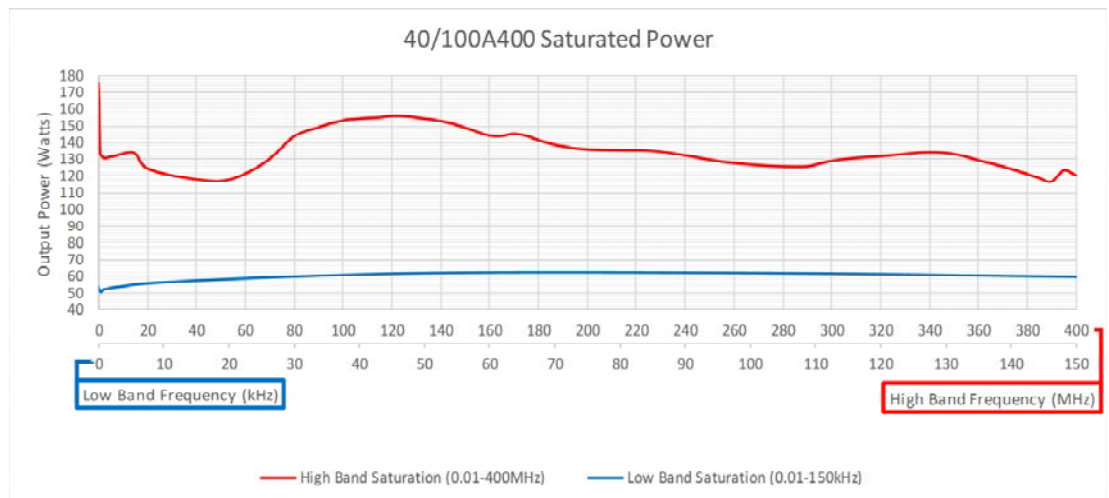


This model is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The digital display on the front panel indicates control status

and reports of internal amplifier status. All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format, RS-232 hardwire and fiber optic, USB, and Ethernet.

This model is designed to have low spurious signals, exhibit very good linearity, and is extremely load tolerant which enables it to be used in many RF applications such as: RF susceptibility testing, antenna/component testing, and communication technology testing. It can be used as a test instrument covering multiple frequency bands and are suitable for a variety of communication technologies such as CDMA, W-CDMA, TDMA, GSM, UWB, WiMAX etc.

The export classification for this equipment is EAR99.



**AR RF/Microwave
Instrumentation**
160 School House Rd
Souderton, PA 18964
215-723-8181

For an applications engineer call: 800.933.8181

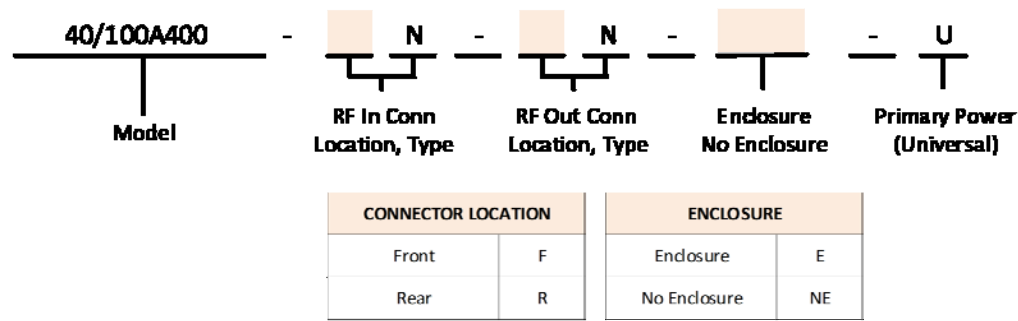
www.arworld.us



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Model Configurations



Specifications, General

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum, 0 dBm

INPUT IMPEDANCE: 50 ohms, VSWR 2.0:1 maximum

OUTPUT IMPEDANCE: 50 ohms, nominal

MISMATCH TOLERANCE: 100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance. See Application Note #27.

MODULATION CAPABILITY: Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal.

SPURIOUS: Minus 73 dBc typical

CONNECTORS:

RF Input: N female

RF Output: N female

REMOTE INTERFACES:

IEEE-488: 24 pin female

RS-232: 9 pin subminiature D (female)

RS-232 (Fiber-optic): Type ST

USB 2.0: Type B

Ethernet: RJ-45

SAFETY INTERLOCK: 15 pin subminiature D

COOLING: Forced air (internal self-contained liquid)

SIZE (W x H x D):

With cabinet: 50.3 x 20.5 x 74.9 cm (19.8 x 8.1 x 29.5 in)

Without Cabinet: 48.3 x 17.7 x 74.9 cm (19 x 7.0 x 29.5 in)

WEIGHT:

With Cabinet 35 kg (77 lbs)

Without Cabinet 24 kg (52 lbs)

EXPORT CLASSIFICATION: EAR99

ENVIRONMENTAL:

Operating Temperature: 5°C / +40°C

Operating Altitude: Up to 2000M

Shock and vibration: Normal Truck Transport

REGULATORY COMPLIANCE:

EMC EN 61326-1

Safety UL 61010-1

CAN/CSA C22.2 #61010-1

CENELEC EN 61010-1

RoHS DIRECTIVE 2011/65/EU

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Model 40/100A400, 0.01–150kHz Band Selected

RATED POWER OUTPUT: 40 watts minimum

POWER OUTPUT @ 1dB COMPRESSION:

Minimum 25 watts

GAIN FLATNESS:

±1.5 dB typical; ±2.0 dB maximum

FREQUENCY RESPONSE: 0.01–150 kHz instantaneously

GAIN (at maximum setting): 45 dB minimum

GAIN ADJUSTMENT (Continuous Range):

18 dB minimum

THIRD ORDER INTERCEPT: 54 dBm typical

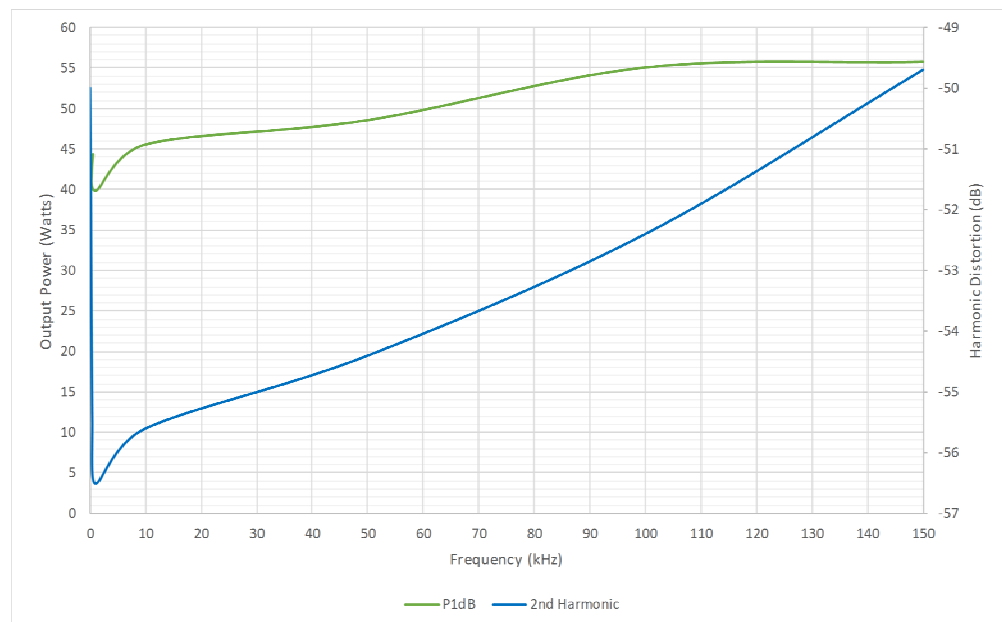
NOISE FIGURE: 10 dB typical

HARMONIC DISTORTION: Minus 25 dBc max at 25 watts (0.01-150 kHz)

PRIMARY POWER (Universal, Selected Automatically):

100-240 VAC, 50/60 Hz, 400 watts

40/100A400 TYPICAL P1dB POWER OUTPUT, 2nd HARMONIC DISTORTION
0.01-100KHz BAND SELECTED



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- 40/100 Watts CW
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Model 40/100A400, 0.01–400MHz Band Selected

RATED POWER OUTPUT: 100 watts minimum

POWER OUTPUT @ 3dB COMPRESSION:

Nominal 125 watts; Minimum 100 watts

POWER OUTPUT @ 1dB COMPRESSION:

Nominal 85 watts; Minimum 75 watts

GAIN FLATNESS:

± 1.0 dB typical; ± 1.5 dB maximum

FREQUENCY RESPONSE:

0.01–400 MHz instantaneously

GAIN (at maximum setting): 50 dB minimum

GAIN ADJUSTMENT (Continuous Range):

20 dB minimum

THIRD ORDER INTERCEPT: 55 dBm typical

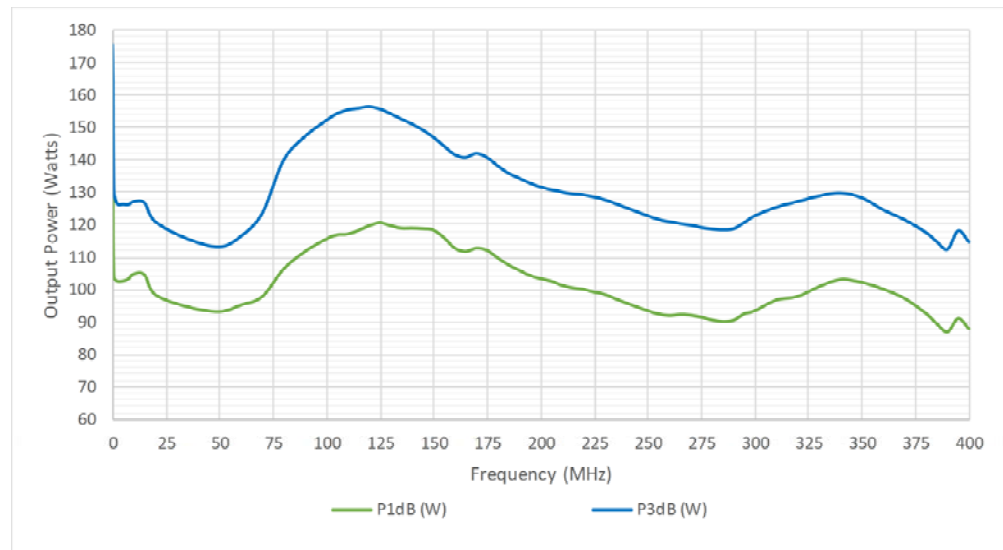
HARMONIC DISTORTION: Minus 20 dBc max

@ 75W

PRIMARY POWER (Universal; Selected Automatically):

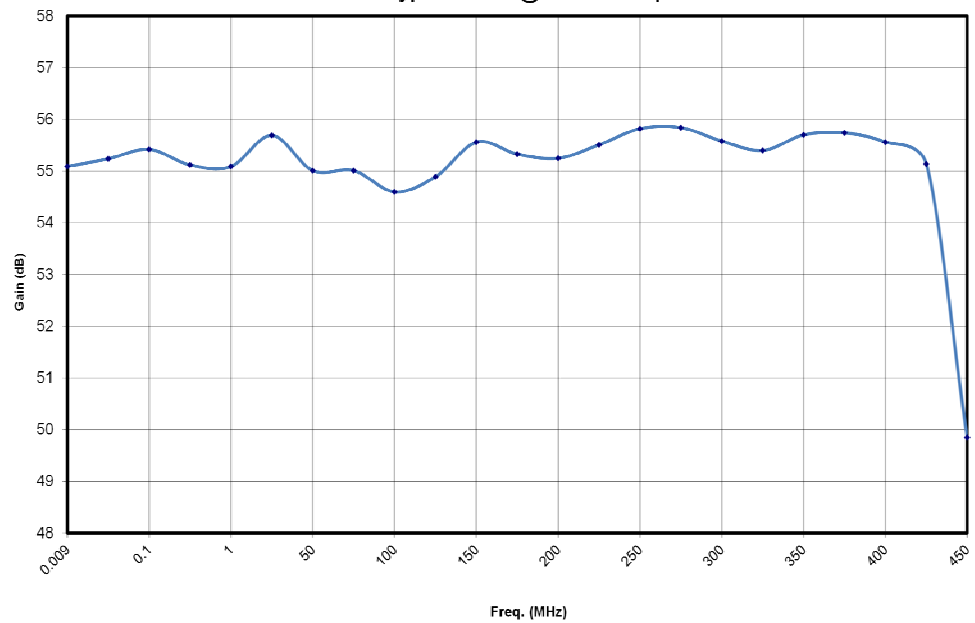
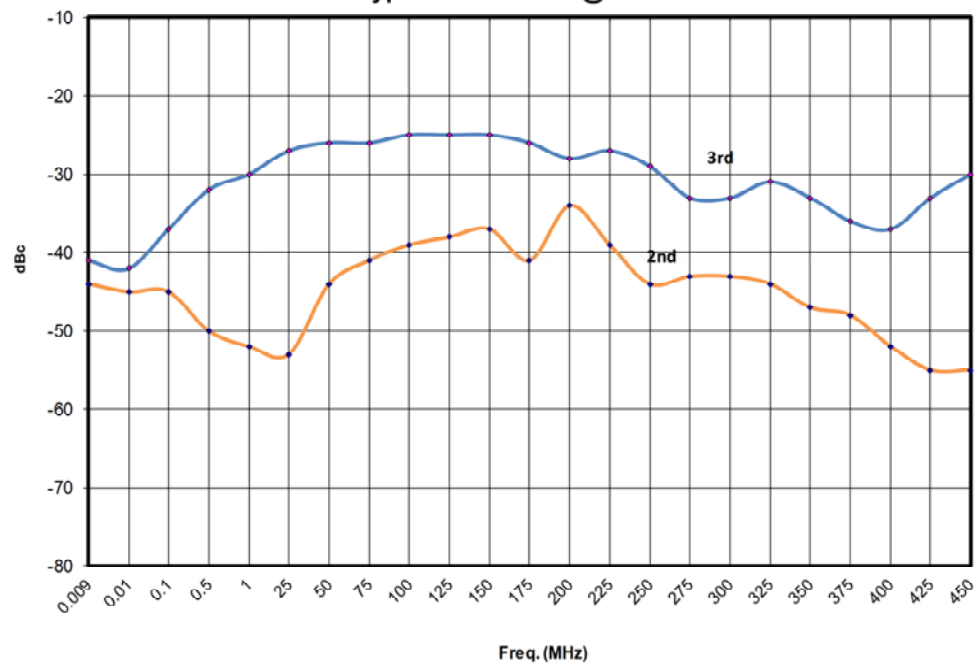
100-240 VAC, 50/60 Hz, 500 watts

40/100A400 TYPICAL P1dB, P3dB POWER OUTPUT, HARMONIC DISTORTION
0.01-400MHz BAND SELECTED



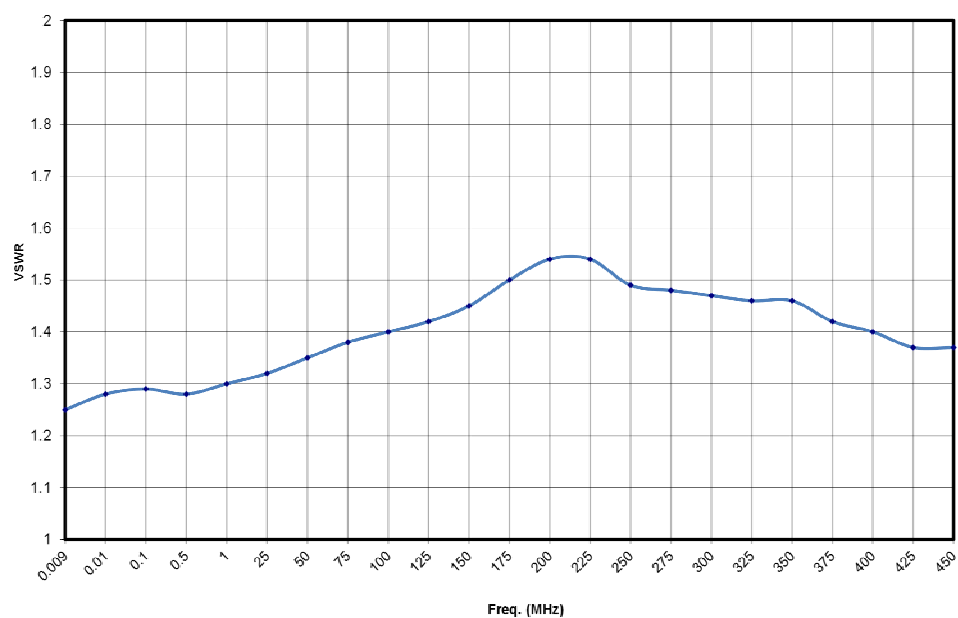
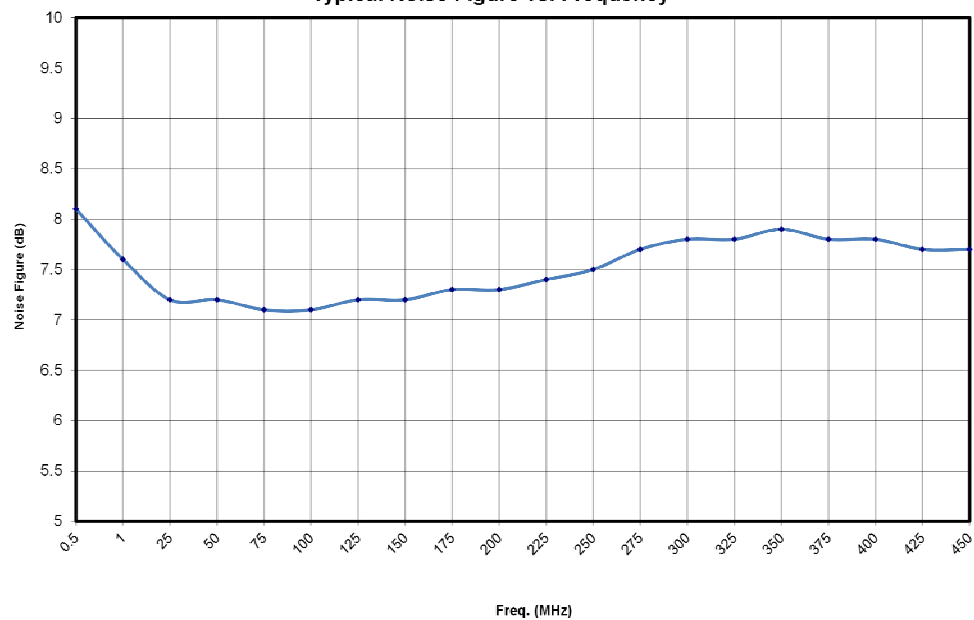
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Model 40/100A400, 0.01–400MHz Band Selected**Typical Gain @ -20 dBm input****Typical Harmonics @ 75 watts**

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Model 40/100A400, 0.01–400MHz Band Selected**Typical Input VSWR****Typical Noise Figure vs. Frequency**

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