

## ARCHIMEDE TYPE

MAY 30 - 2006

second edition

## AMATEUR RADIO RF POWER MOSFET AMPLIFIER



## 1000MAC144 1 kW out

- Reduced Dimensions
- High Efficiency
- High Ventilation
- Oversize Switching Power Supply
- Low Weight
- Best Quality

## **GENERAL CHARACTERISTICS**

Output Power ( minimum )       1000 Wa         Output Connector       N female typ         Driving power       12 ÷ 18 Wa         Coax Relay Tohtsu       Mod. CX140D input – CX600NC output         Input connector       N female typ         Input - Output impedance       50 OHI         Input v.s.w.r.       1,3:1 ma         Spurious and harmonic emission       Better than what CCIR and FCC rec         Mosfet efficiency       ≥ 68 °         RF unit cooling       4 h.p. Axial fans in a redundant system         RF devices heat sink temperature delta       22°C to 28°         Power supply cooling (optional)       2 axial fa         Ambient working temperature       0 to 45°         Relative humidity       Up to 90% non condensin         Altitude       ≤ 4500 °         Protections       Non-stop reducing power typ         AC power       185÷260 VAC 50-60H	Operating Band	143 ÷ 147 MHz
Output Connector       N female typ         Driving power       12 ÷ 18 Wa         Coax Relay Tohtsu       Mod. CX140D input – CX600NC output         Input connector       N female typ         Input - Output impedance       50 OHI         Input v.s.w.r.       1,3:1 ma         Spurious and harmonic emission       Better than what CCIR and FCC red         Mosfet efficiency       ≥ 68 °         RF unit cooling       4 h.p. Axial fans in a redundant system         RF devices heat sink temperature delta       22°C to 28°         Power supply cooling (optional)       2 axial fa         Ambient working temperature       0 to 45°         Relative humidity       Up to 90% non condensin         Altitude       ≤ 4500 °         Protections       Non-stop reducing power typ         AC power       185;260 VAC 50-60H		
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Input connector       N female typ         Input - Output impedance       50 OHI         Input v.s.w.r.       1,3:1 ma         Spurious and harmonic emission       Better than what CCIR and FCC red         Mosfet efficiency       ≥ 68 d         RF unit cooling       4 h.p. Axial fans in a redundant system         RF devices heat sink temperature delta       22°C to 28°         Power supply cooling (optional)       2 axial fa         Ambient working temperature       0 to 45°         Relative humidity       Up to 90% non condensing         Altitude       ≤ 4500 m         Protections       Non-stop reducing power type         AC power       185÷260 VAC 50-60H	Driving power	12 ÷ 18 Watt
Input - Output impedance 50 OHI Input v.s.w.r. 1,3:1 ma Spurious and harmonic emission Better than what CCIR and FCC rec Mosfet efficiency ≥ 68 of RF unit cooling 4 h.p. Axial fans in a redundant system RF devices heat sink temperature delta 22°C to 28° Power supply cooling (optional) 2 axial fa Ambient working temperature 0 to 45° Relative humidity Up to 90% non condensing Altitude ≤ 4500 m Protections Non-stop reducing power type AC power 185÷260 VAC 50-60H	Coax Relay Tohtsu	Mod. CX140D input – CX600NC output
Input v.s.w.r.       1,3:1 ma         Spurious and harmonic emission       Better than what CCIR and FCC rec         Mosfet efficiency       ≥ 68 m         RF unit cooling       4 h.p. Axial fans in a redundant system         RF devices heat sink temperature delta       22°C to 28°         Power supply cooling (optional)       2 axial fans         Ambient working temperature       0 to 45°         Relative humidity       Up to 90% non condensing         Altitude       ≤ 4500 m         Protections       Non-stop reducing power type         AC power       185÷260 VAC 50-60H	Input connector	N female type
Spurious and harmonic emission       Better than what CCIR and FCC recommendation         Mosfet efficiency       ≥ 68 °C         RF unit cooling       4 h.p. Axial fans in a redundant system         RF devices heat sink temperature delta       22°C to 28°         Power supply cooling (optional)       2 axial fance         Ambient working temperature       0 to 45°         Relative humidity       Up to 90% non condensing         Altitude       ≤ 4500 °C         Protections       Non-stop reducing power type         AC power       185÷260 VAC 50-60H	Input - Output impedance	50 OHM
Mosfet efficiency       ≥ 68 °C         RF unit cooling       4 h.p. Axial fans in a redundant system         RF devices heat sink temperature delta       22°C to 28°         Power supply cooling (optional)       2 axial fans         Ambient working temperature       0 to 45°         Relative humidity       Up to 90% non condensing         Altitude       ≤ 4500 m         Protections       Non-stop reducing power type         AC power       185÷260 VAC 50-60H	Input v.s.w.r.	1,3:1 max
RF unit cooling  RF devices heat sink temperature delta  Power supply cooling (optional)  Ambient working temperature  Relative humidity  Altitude  Protections  Non-stop reducing power typ  AC power  A h.p. Axial fans in a redundant system  22°C to 28°  22°C to 28°  2 axial fance  3 to 45°  Power supply cooling (optional)  2 axial fance  4 to 90% non condensing  4 h.p. Axial fans in a redundant system  22°C to 28°  0 to 45°  No 15°  Non-stop reducing power typ  AC power	Spurious and harmonic emission	Better than what CCIR and FCC req.
RF devices heat sink temperature delta  Power supply cooling (optional)  Ambient working temperature  Relative humidity  Up to 90% non condensin  Altitude  Protections  Non-stop reducing power typ  AC power  185÷260 VAC 50-60H	Mosfet efficiency	≥ 68 %
Power supply cooling (optional)       2 axial fa         Ambient working temperature       0 to 45°         Relative humidity       Up to 90% non condensing         Altitude       ≤ 4500 m         Protections       Non-stop reducing power type         AC power       185÷260 VAC 50-60H	RF unit cooling	4 h.p. Axial fans in a redundant system
Ambient working temperature 0 to 45°  Relative humidity Up to 90% non condensin  Altitude ≤ 4500 n  Protections Non-stop reducing power typ  AC power 185÷260 VAC 50-60H	RF devices heat sink temperature delta	22°C to 28°C
Relative humidity  Up to 90% non condensin  ≤ 4500 n  Protections  Non-stop reducing power typ  AC power  185÷260 VAC 50-60H	Power supply cooling (optional)	2 axial fan
Altitude ≤ 4500 r  Protections Non-stop reducing power typ  AC power 185÷260 VAC 50-60H	Ambient working temperature	0 to 45°C
Protections Non-stop reducing power typ AC power 185÷260 VAC 50-60H	Relative humidity	Up to 90% non condensing
AC power 185÷260 VAC 50-60H	Altitude	≤ 4500 m
	Protections	Non-stop reducing power type
AC power consumption Depending on the mode	AC power	185÷260 VAC 50-60Hz
	AC power consumption	Depending on the model
Rack dimensions 19" 2U 530 mm dept	Rack dimensions	19" 2U 530 mm depth
Weight 17 K	Weight	17 Kg

<sup>\*</sup> The above data is purely indicative; we may vary them without any warning

The p.a. **1000MAC144** are complete machines, "ready to go", the working class is "AB", it is extremely linear on SSB. Compactness, "ready to go", P.A. are on the vanguard on Ham's station; the reduce weight to exalt use on DXpedition in WSJT, MS or EME.

The P.A. machines are completed with: PCBoard RF power, power supply VDC, switching PCboard and coaxial relays, protection PCBoard (R.O.S., temperature, extra power input), low pass filter and directional coupler with instrument to read power out.

