



# 06-380 RF Power Supply Specifications

## Class Of Operation

Class B

## Frequency Of Operation

380 kHz (+/- 5kHz)

## Frequency Stability

0.005% or better

## RF Power Output

500 Watts nominal into 50 Ohms

## Operation as amplifier. Contact T&C for further details.

**Output as amplifier in MGC/Burst Mode**  
0 dBm IN, 1V (5 or 10V) CTL IN pin 5  
100W +/-2W

NOTE! Scale for MGC is not linear.

## RF Input Drive (as amplifier)

Typical range -20 dBm to 0 dBm  
1V (5 or 10V) CTL IN pin 5

## RF Input Drive for AGC

Recommended +0 to +3 dBm for the best operation

## Input Drive Source(amplifier)

Signal or function generator, analog computer input capable of up to 2 Vp-p @ 50 Ohm

## Internal RF Source

Crystal oscillator at 380 kHz +/-5 kHz

## Input and Output Impedance

50 Ohm

## IN / OUT VSWR

1.2:1 max - input  
3:1 max - output

## Output VSWR Protection

80 Watts max reflected power limit. Automatic, limits typically within 0.5 ms after reverse power reaches 80 Watts or power amplifier current preset limit.

## Harmonic Level @ 500W

Better than - 40 dBc

## Spurious Output

- 50 dBc

## Output Blanking (Pulsing)

For pulsed applications, T&C amplifiers and generators offer blanking of the output signal for minimum noise RF spectrum. Less than 1µs Rise/Fall time

## Dynamic Power Range

1 to 500W, settings within +/- 3W  
NOTE! Output cutoff below 1W.

## Output Control Interfaces (Communications)

SubD 25 Analog and Digital I/O .  
D-COM "Digital Communication" Port: (Optional)  
RS-232  
RS-485  
USB

## Power Monitor Scale Selection

User selectable levels down to 1 watt (in three (3) Scales) within tenths of watt accuracy.

Available scales:  
1V=100W  
5V=full power  
10V=full power

## Pulse Specifications

Pulse Width from 2 µs to continues, user defined.

## RF Power Margin

(Open Loop Max Power/Rated Power)<sup>-1</sup>\*100  
20 %

## RF Connectors

INPUT BNC Female  
OUTPUT N Female  
BLANKING BNC Female  
Rear Panel

## AC Power Source

100 to 240 VAC, +/- 10% PFC, 50 - 60

Hz broad input voltage, with no adjustment required.

## AC Power Connection

IEC Standard Power Entry followed by RFI filter.  
Filter range 0.1 to 30 MHz min.

## AC Circuit Protection

Internally fused on the main DC Power Supply, 15A.

## AC Input Current (RMS)

**RF Out 500W:**  
100 to 240V ac, 9 A

## Cooling

Forced air, temperature controlled, heatsink temperature monitored for equipment safety at 70C limit.

## Dimensions

H135mm x W211mm x L394mm  
( 5.25" x 8.3" x 15.5" )

## Weight

14.5 kg, 32 lbs.

## Case

Front Panel: T&C White - Powder Coated Steel.  
Stainless Steel Covers and Chassis.  
Chassis designed to meet EMI RFI shielding requirements

## Mounting

Half Rack, 3U high.

Optional: Rack Mount Kit, Adapter Kit, Coupling Screws.

## Environmental conditions

**Temp.:** 10° to 40° C ambient  
**Humidity:** 80%

Equipment intended for ISM applications in laboratory and light industrial environment.

## T&C Power Conversion, Inc.

110 Halstead Street, Suite 7  
Rochester, NY 14610, USA  
Tel: 585-482-5551

Fax: 585-482-8487

www.tcpowerconversion.com

sales@tcpowerconversion.com

## Sales Representative:

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