

# TWAL

## 4 ... 12 GHz

## Travelling Wave Tube

### Standard Models

Model	Frequency Range	Output Power P <sub>N</sub> / W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power W	Dimensions (H,D) 19"-System	Weight kg
TWAL 0412-20	4 ... 12 GHz	20	43 / 51 ±4	0 / 6	500	3 HU, 550 mm	18

### Standard Specifications:

Input Power	0 dBm (1 mW) max.
Overdrive Protection:	up to +10 dBm for no damage
Input Impedance:	50 Ohm nominal
Output Impedance:	50 Ohm nominal
Input VSWR:	<2:1 typ.
Load VSWR:	2:1 max. for P <sub>N</sub> -0.5 dB infinite for no damage
Spurious (at P <sub>N</sub> ):	-50 dBc typ.(excluding harmonics)
Noise Figure:	20 dB max.
Class of Operation:	A-linear

### General:

RF Input:	N-f; standard on rear panel
RF Output:	N-f; standard on rear panel
Mains Supply:	200 ... 264 V AC / 47 ... 63 Hz
Elapsed Time Meter:	via status display
Ambient Temperature:	0 ... +40 °C
Storage Temperature:	-20 ... +85 °C

BONN Elektronik GmbH – TWAL 4 ... 12 GHz

Relative Humidity:	up to 95% (non-condensing)
Operating Altitude:	up to 2000 m above sea level
Vibration and Shock:	normal laboratory environment
Cooling:	forced air with integral blower, air intake and exhaust at rear

**Options:**

- |                                      |                            |
|--------------------------------------|----------------------------|
| A) RF Monitor Outputs                | G) Output Isolator         |
| B) External Dual Directional Coupler | M) 115 V AC / 47 ... 63 Hz |
| C) IEEE-488.2 GPIB Remote Control    | N) Harmonic Filter         |
| D) Front Panel RF Connectors         | R) RS-232C Remote Control  |
| E) Power Indication (digital)        | U) USB Remote Control      |
| F) Gain Adjustment                   |                            |

Specifications are subject to change without notice



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