

## STANDARD MODELS

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions (H, D) 19"-System	Weight kg
TWAL 0118-30/20D	1 ... 18 GHz				500	4 HU, 630 mm	33
	1 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20			
	2 ... 4 GHz	20 / 25	43 / 45 ±2	20 / 20			
	4 ... 18 GHz	20 / 30	43 / 48 ±5	0 / 5			

1 HU = 44.45mm

## 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. für $P_N$ -0.5 dB;
	infinite for no damage
Spurious (at $P_N$ ):	-50 dBc typ. (excluding harmonics)
Noise:	1 ... 18 GHz      -20 dBm / MHz
	18 ... 40 GHz     -35 dBm / MHz
Class of Operation:	A-linear

## GENERAL

RF Input:	1 ... 18 GHz	N-f; standard on rear panel
	18 ... 40 GHz	2.92 mm-f; standard on rear panel
RF Output:	1 ... 8 GHz	N-f
	6 ... 18 GHz	WRD 650
	8 ... 18 GHz	WRD 750
	18 ... 40 GHz	WRD 180
Sample Port:	-50 dB forward	
Mains Supply:	200 ... 264 V AC	47 ... 63 Hz
Ambient Temperature:	0 ... +40 °C	
Storage Temperature:	-20 ... +85 °C	
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	L) LAN Remote Control
C) IEEE-488.2 GPIB Remote Control	N) Harmonic Filter
D) Front Panel RF Connectors	R) RS-232C Remote Control

# TWAL 1 ... 18 GHz TWT Amplifiers

E) Power Indication (digital)  
F) Gain Adjustment

U) USB Remote Control