

## 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 1822-500	18 ... 22 GHz				6000	12 HU, 660 mm	90
	18 ... 18.8 GHz	400 / 450	56.5 / 60 ±3	20 / 20			
	18.8 ... 22 GHz	500 / 550	56.5 / 60 ±3	20 / 20			

1 HU = 44.45 mm

## 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:	infinite for no damage (100% mismatch tolerant)
	$P_N$ -0.5 dB min. at VSWR 2:1
Spurious (at $P_N$ ):	-60 dBc min. (excluding harmonics)
Noise Figure	20 dB max.
Class of Operation:	A-linear

## GENERAL

RF Input:	SMA-f, standard on rear panel
RF Output:	WR 42, standard on rear panel
Mains Supply:	3x 400 V AC ±10%, 47 ... 63 Hz
Elapsed Time Meter:	via status display
Ambient Temperature:	0 ... 45 °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 *)	N) Harmonic Filter *)
B) External Dual Directional Coupler	R) RS-232C/RS-485 Remote Control
C) IEEE-488.2 GPIB Remote Control	S) Internal RF Switching Unit *)
D) Front Panel RF Connectors	U) USB Remote Control
E) RF Power Indication (digital) *)	W) Liquid Cooling

# TWAL 18 ... 22 GHz TWT Amplifiers

F) Gain Adjustment \*)  
G) Output Isolator \*)  
L) Remote Control

X) External Control of other Amplifiers

\*) These options may reduce output power and/or gain