

**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 0118-20DH (Hybrid)	1 ... 18 GHz				500	4 HU, 630 mm	32
	1 ... 6 GHz	20 / 25	43 / 45 ±2	20 / 20			
	6 ... 18 GHz	20 / 25	43 / 48 ±5	5 / 20			
TWAL 0118-30/20DH (Hybrid)	1 ... 18 GHz				500	4 HU, 630 mm	33
	1 ... 6 GHz	30 / 35	44.8 / 47 ±2	20 / 15			
	6 ... 18 GHz	20 / 25	43 / 48 ±5	5 / 20			
TWAL 0118-50DH (Hybrid)	1 ... 18 GHz				500	4 HU, 630 mm	32
	1 ... 6 GHz	50 / 60	47 / 50 ±3	15 / 20			
	6 ... 14 GHz	50 / 60	47 / 52 ±5	5 / 15			
	14 ... 17 GHz	40 / 45	46 / 51 ±5	20 / 20			
	17 ... 18 GHz	35 / 50	45.4 / 51 ±5	20 / 20			
TWAL 0118-100DH (Hybrid)	1 ... 18 GHz				1000	5 HU, 630 mm	54
	1 ... 6 GHz	100 / 120	50 / 53 ±3	15 / 20			
	6 ... 18 GHz	100 / 120	50 / 55 ±5	3 / 12			

For individual data sheets, please click on the above model name

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 $P_N$ ):	-50 dBc typ. (excluding harmonics)
Noise Figure	20 dB max.
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 (up to 1 kW):	1 ... 18 GHz	N-f
	6 ... 18 GHz	WRD 650
	8 ... 18 GHz	WRD 750
	18 ... 26,5 GHz	WR 42
	26,5 ... 40 GHz	WR 28
RF Output (1 kW or more):	1 ... 8 GHz	7-16-f
	8 ... 18 GHz	WRD 750
Mains Supply:	200 ... 240 V AC	47 ... 63 Hz

# TWAL 1 ... 18 GHz TWT Amplifiers

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

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- |                                      |   |
|--------------------------------------|---|
| A) RF Monitor Outputs *)             | N) Harmonic Filter *)                   |
| B) External Dual Directional Coupler | R) RS-232C 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                       |
| F) Gain Adjustment *)                | X) External Control of other Amplifiers |
| G) Output Isolator *)                |   |
| L) Remote Control                    |   |

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