

## STANDARD MODELS

| Model          | Frequency Range | Output Power<br>$P_N$ min / typ<br>W | Gain<br>min / typ<br>dB | Harmonics<br>2nd / 3rd<br>dBc | Line Power<br>VA | Dimensions<br>(H, D)<br>19"-System | Weight<br>kg |
|----------------|-----------------|--------------------------------------|-------------------------|-------------------------------|------------------|------------------------------------|--------------|
| TWAL 1823-200E | 18 ... 23 GHz   | 200 / 220                            | 53 / 58 ±5              | 15 / 20                       | 2200             | 6 HU, 800 mm                       | 35           |

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:            | SMA-f, standard on rear panel                                     |
| RF Output:           | WR 42, standard on rear panel                                     |
| Mains Supply:        | 100 ... 240 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<br>air intake and exhaust at rear |

## OPTIONS

|                                      |   |
|--------------------------------------|---|
| 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