# M30D

**High Efficiency 2-Channel Amplifier for Professional Applications**


## PRODUCT DESCRIPTION

The Powersoft M30D is a professional power amplifier designed to meet the most stringent requirements of professional users in sound reinforcement and professional fixed installations.

Designed by Powersoft's R&D team the M30D is exclusively built in Italy with internal components selected for premium quality and proven durability.

Each modular subassembly is pre-tested, and the assembled M30D receives a rigorous test for total quality control.

Powersoft bridgeable switch mode fixed frequency Class D patented outputs provide high quality sound, outstanding damping factor and cooler circuits for stable performances over time and for a longer amplifier life.

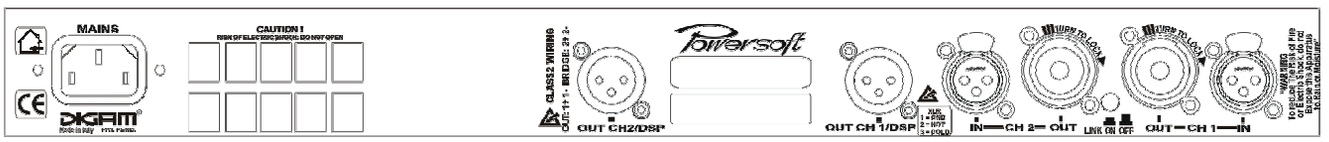
The M30D is able to drive 100V constant voltage lines directly without the need of transformers. However, optional TU4 single rack units providing 4-channel transformer outputs may be used for galvanic insulation and other voltages not supported by the M30D directly.

## M30D FEATURES

- Switch mode power supply with 115/230V selectable range and up to 290V tolerant
- Fixed frequency switch mode output
- Patented output filter with ripple cancellation network
- Front panel LED indicators
- Neutrik® XLR balanced inputs with loop thru XLR and Speakon® outputs connectors
- Fully protected circuit design with:
  - AC protection: shut down power supply when AC mains voltage is outside operating range
  - Clip limiter: prevents severely clipped waveforms from reaching loudspeakers, while still maintaining full peak power output
  - DC protection: protects against infrasonic signal at the outputs
  - VHF protections: protects the loudspeakers against non audible, strong, non musical very high frequency signals
  - Short circuit protection: protects the amplifier from short circuit or other stressful events for the output circuits with automatic protection reset
  - Thermal protection: when output devices reach 75°C (167°F) amplifier shut down outputs, they will unmute automatically when temperature will reach 65°C (149°F)
  - Long term limiter: protects the loudspeaker against steady long-term (non-audio) RMS signals reducing maximum output
- Temperature-controlled continuous variable speed fan, front to back airflow
- Recessed stepped attenuators
- Detachable AC mains cable with IEC 16A socket
- Full four years warranty

| POWER SPECIFICATIONS | 8 Ω Stereo | 4 Ω Stereo | 2 Ω Stereo | 8 Ω Bridged | 100V |
|---|---|---|---|---|---|
| **EIAJ test, 1 kHz, 1% THD** | 2 x 900 W | 2 x 1500 W | NA | 1 x 3000 W | 2x1500 W(1) |

(1) External high-pass filter required.




## GENERAL SPECIFICATIONS

| | |
|---|---|
| **Power requirements** | AC 115/230V (+15/-25%) internally switchable, 50/60 Hz, 290V tolerant |
| **Idle power** | 40W (0,37A @ 230V / 0,74A @ 115V) |
| **Consumption** | 512 VA, 2,2A @ 230V, 4,4A @ 115V (1/8 max output power @ 4 Ω)<br>981 VA, 4,26A @ 230V, 8,5A @ 115V (1/4 max output power @ 4 Ω) |
| **Thermal emission (1/8 power @ 4 Ω)** | 439 BTU/Hour |
| **Thermal emission (1/4 power @ 4 Ω)** | 758 BTU/Hour |
| **Cooling** | Temperature controlled continuous variable speed fan, front to rear airflow |
| **Environmental operating temperature** | 0°-45° C (32°-113° F) |
| **Construction** | 1 mm (0,04 in) steel chassis, 3 mm (0,12 in) steel front panel, 3 mm (0,12 in) screw hole protection, 3 mm (0,12 in) steel side reinforcement & rear support, 3 mm (0,12 in) steel removable dust cover |
| **External dimensions** | 1 standard rack unit, 358mm deep (14,1 in) |
| **Net Weight-Shipping Weight** | 7,4 Kg (16,3 Lbs) – 8,9 Kg (19,6 Lbs) |

## FRONT & REAR PANEL SPECIFICATIONS

| | |
|---|---|
| **Input connectors** | Balanced Neutrik® XLR with positive on pin 2+, loop thru on XLR |
| **Output connectors** | Neutrik® Speakon® NL4MD (1+1- stereo, 2+2- bridge) |
| **Power switch** | Front panel push on/push off mains power switch |
| **LED indicators** | Green for signal (-24dBV) for each channel, white for amplifier ready and yellow for amplifier thermal protection, 3 led meter (2 green, 1 red) per channel output meter |
| **Attenuators** | One per channel from –∞ to 0 (-∞, 4, 14, 18, 24, 22, 24, 26, 28, 30, 32 dB) stepped attenuators |
| **Power connector** | IEC 16A on rear panel with cable retention system |
| **Power cable** | IEC Schuko 16 A for EU, 3 pin plug 15A for US |
| **Link switch** | Rear panel link switch to connect input channel 1 to input channel 2 |

## AUDIO SPECIFICATIONS

| | | | |
|---|---|---|---|
| **Input impedance** | 10 kΩ, balanced | **Slew Rate @ 8 Ω** | 50V/µs input filter bypassed |
| **Input sensitivity @ 8Ω** | 2,13V / 8,8 dBu | **Damping factor** | > 500 @ 100 Hz |
| **Gain** | 32dB | **THD+N** | < 0,05% from 0,1W to full power (typically <0,01%) |
| **Frequency response** | 10 Hz – 30 kHz (+/-3dB) for 1W @ 8 Ω | **SMPTE IMD** | < 0,05% from 0,1W to full power (typically <0,01%) |
| **S/N ratio** | > 112 dB(A) (20 Hz – 20 kHz) | **DIM100 IMD** | < 0,02% from 0,1W to full power (typically<0,005%) |
| **Crosstalk** | >70 dB @ 1 kHz | **Max Output Voltage** | 135 V peak |

**Powersoft reserves the right to make improvements in manufacturing or design which may affect product specifications.**

**Powersoft S.r.l.**
Via Enrico Conti, 5 Scandicci (FI) – Italy
TEL: +39 055 7350230
FAX: +39 055 7356235
sales-audio@powersoft.it