

4-Channel Power Amplifier for Portable and Permanently Installed Applications





**4**CH





- Small to medium-scale systems, portable and installed
- Stage monitoring
- Hotels, restaurant and bars
- Amusement parks, themed entertainment
- Houses of worship, auditoriums
- Educational facilities
- Live and dance clubs
- Mobile DJ's

Equally versatile in both portable and installed system configurations, and with its 4 channels delivering up to 8,000 W all neatly packed in one single rack unit weighing just over 7 kg / 16 lb, the **DM10K** is a flexible, cost-effective solution for small to medium sound systems.

Minimum heat dissipation makes the **DM10K** suitable for hot or otherwise challenging environments.

Added the legendary sound quality thanks to Powrt's unique, patented Class D output stage design, the **DM10K** represents a fantastic value, practically as well as commercially.

The **DM10K** comes with 4 years warranty and, like all POWRT products, is entirely designed and made

4-char	4-channel mode				
4 Ω / Ch	8 Ω / Ch				
2,000 W	1400 W				

mono-bridged mode
8 Ω / Ch pair
4,000 W

EIAJ Test Standard, 1 kHz, 1% THD

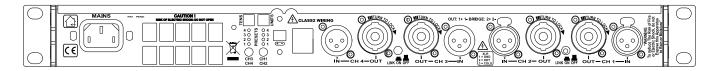
- ✓ Legendary Powrt efficiency:
  - ► Compact and space saving: 4 channels in 1 RU at 358 mm / 14.1" depth
  - Green Audio Power®: minimal "carbon footprint" and operational cost of electricity
  - ► More watts, less weight: up to 8,000 W in 7.3 kg / 16 lb
- ✓ Unique Powrt technology for efficient, reliable performance:
  - Switch mode power supply, internally switchable 230/115 V nominal
  - Fixed frequency switch mode amplifier output stages
  - Patented amplifier output filters with ripple cancellation network
- ✓ Driving distributed line systems:
  - Able to drive 100 V distributed lines directly without the need for transformers<sup>1)</sup>
- $\checkmark$  Optimized for 4  $\Omega$  loads, thus ideally matching real-world scenarios in targeted applications
- ✓ Fully protected circuit design:
  - AC protection: shuts 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 destructive non-audible, non-musical high frequency signals
  - Short circuit protection: protects the amplifier from short circuit or similar events on the outputs; with automatic protection reset
  - Thermal protection: mutes outputs once output devices reach 75 °C / 167 °F; automatic unmute once temperature is down to 65 °C / 149 °F
- ✓ Temperature controlled continuous variable speed fan, front to rear airflow
- √ Recessed stepped level attenuators
- ✓ Full four years warranty



<sup>1)</sup> External high-pass filter and output voltage limiter required.

<sup>2)</sup> External high-pass filter required.

## 4-Channel Power Amplifier for Touring and Install Applications



## **Specifications**

General								
	Number of channels		2	ļ				
	Output power	4	-channel mode		mono-bridged mode			
	EIAJ Test Standard, 1 kHz, 1% THD	4 Ω / Ch	8 Ω / Ch		8 Ω / Ch pair			
	, , , , , , , , , , , , , , , , ,	2,00 0 W	1.400 W		4,000 W			
	Max output voltage / current	2,000 11	135 V peak	/ 65 A peak	1,000 11			
C Mains Po			100 ( )					
o mamo r	Power supply	Universal, regulated switch mode						
	Operating voltage / Inrush current	115 V / 230 V (factory selection) ± 15%, 50 Hz - 60 Hz / < 34 A RMS						
	Consumption / current draw							
	Idle	64 W 0.51 A		GA W	@ 115 V			
				64 W	0.6 A			
	I/8 of max output power @ 4Ω	905 W	5.8 A	905 W	11.6 A			
	I/4 of max output power @ 4Ω	1,772 W	11.1 A	1,772 W	22.2 A			
hermal								
	Environmental operating temperature	0° - 45° C / 32° - 113° F						
	Thermal dissipation	Fan, continuously variable speed, temperature controlled, front to rear airflow						
	Idle							
			218 BTU/h		55 kcal/h			
	I/8 of max output power @ 4Ω	955 BTU/h		241 kcal/h				
	I/4 of max output power @ 4Ω	1,781	BTU/h	4	149 kcal/h			
Audio								
	Gain		3, 24 dB, 22 dB, 20 dB, 18 dB	, 14 dB, 4 dB, -∞, user:	selectable			
	Frequency response	10 Hz - 30 kHz (1 W @ $8 \Omega$ , $\pm 3 dB$ )						
	S/N ratio (amplifier section)	>110 dBA (20 Hz - 20 kHz, A weighted)						
	Crosstalk separation	>70 dB @ 1 kHz						
	Input sensitivity @ 8\O	1.94 V / 7.97 dBu						
	Max input level	6 V / 17.8 dBu						
	Input impedance	10 kΩ						
	THD+N / SMPTE IMD	< 0.05% @ 1/2 of full power	er					
	DIM100 IMD	typ. <0.005% (<0.02% @ >	·0.1)W					
	Slew rate	40 V/µs @ 82, input filter bypassed						
	Damping factor @ 8Ω	>5000 @ 100 Hz	, ,					
OSP (option		10000 @ 100112						
or (option		7.11						
	Frequency response @ -3 dB	7 Hz - 22 kHz						
	THD < 0.01% (20 Hz - 20 kHz)							
	Presets	Bank of 4 presets, management and upload via Armonía Pro Audio Suite™						
	Delay for time alignment	10 ms per output						
	Crossover filters	Butterworth, Linkwitz-Rile	y, Bessel, 6 dB/oct to 48 dB/o	oct				
	Output equalizer	up to 12 biquad fully parametric per channel: peaking, hi/lo shelving, hi/lo pass, band pass, band stop, all pa						
	Input equalizer	up to 5 biquad filters (PEQ	, shelving, band pass, band s	stop, all pass)				
	Limiters	Peak limiter, RMS limiter, f	requency dependent RMS lir	niter				
	Damping control	< 120 Hz, range ± 2 Ω						
	Damping control							
	, 0	up to 170 ms for 2 IN/2 OU	T or 340 ms for 1 IN/2 OUT					
	System Delay	up to 170 ms for 2 IN/2 OU	T or 340 ms for 1 IN/2 OUT					
Front Panel	System Delay							
Front Panel	, 0	4 LEDs per channel: 3 x gr	een, 1 x red					
Front Panel	System Delay  Indicators	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green,	een, 1 x red 1 x yellow					
Front Panel	System Delay  Indicators  Controls	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator	een, 1 x red 1 x yellow pot per channel; mains switc	h				
	System Delay  Indicators	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green,	een, 1 x red 1 x yellow pot per channel; mains switc	h				
	System Delay  Indicators  Controls  Maintenance	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from	een, 1 x red 1 x yellow pot per channel; mains switc nt panel	h				
	System Delay  Indicators  Controls  Maintenance  Audio signal input connectors	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from 4 x balanced Neutrik ® XLI	een, 1 x red 1 x yellow pot per channel; mains switc nt panel R female	h				
	System Delay  Indicators  Controls  Maintenance  Audio signal input connectors  Loudspeaker output connectors	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NL4	een, 1 x red 1 x yellow pot per channel; mains switc nt panel R female MD					
	System Delay  Indicators  Controls  Maintenance  Audio signal input connectors  Loudspeaker output connectors  Network data port RS485	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NL4 1 x RJ45 with activity LED	een, 1 x red 1 x yellow pot per channel; mains switch at panel R female MD with 2 rotary address switch					
	System Delay  Indicators  Controls  Maintenance  Audio signal input connectors  Loudspeaker output connectors	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NL4 1 x RJ45 with activity LED 2 x Pushbutton (stepping til	een, 1 x red 1 x yellow pot per channel; mains switch It panel R female MD with 2 rotary address switch prough bank of 4 presets)					
	Indicators  Controls Maintenance  Audio signal input connectors Loudspeaker output connectors Network data port RS485 DSP preset selection	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NL4 1 x RJ45 with activity LED 2 x Pushbutton (stepping to	een, 1 x red 1 x yellow pot per channel; mains switch It panel R female MD with 2 rotary address switch prough bank of 4 presets)					
	Indicators  Controls  Maintenance  Audio signal input connectors  Loudspeaker output connectors  Network data port RS485  DSP preset selection  Aux voltage	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NLI 1 x RJ45 with activity LED 2 x Pushbutton (stepping that 2 x 4 LED preset indicators 1 x 2-pin Phoenix type MC	een, 1 x red 1 x yellow pot per channel; mains switch t panel  R female MD with 2 rotary address switch rrough bank of 4 presets) 1.5/2-ST-3.81	98	246 A for overviether retire			
	Indicators Controls Maintenance  Audio signal input connectors Loudspeaker output connectors Network data port RS485 DSP preset selection Aux voltage AC mains	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NL4 1 x RJ45 with civity LED 2 x Pushbutton (stepping ti 2 x 4 LED preset indicators 1 x 2-pin Phoenix type MC IEC C13 16 A connector; A	een, 1 x red 1 x yellow pot per channel; mains switch it panel  R female MD with 2 rotary address switch rrough bank of 4 presets) 5 1.5/2-ST-3.81 C mains cord with 3-pin plug	98	o 16 A for every other nation			
Rear Panel	System Delay  Indicators  Controls  Maintenance  Audio signal input connectors  Loudspeaker output connectors  Network data port RS485  DSP preset selection  Aux voltage  AC mains  Controls	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind from 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NLI 1 x RJ45 with activity LED 2 x Pushbutton (stepping that 2 x 4 LED preset indicators 1 x 2-pin Phoenix type MC	een, 1 x red 1 x yellow pot per channel; mains switch it panel  R female MD with 2 rotary address switch rrough bank of 4 presets) 5 1.5/2-ST-3.81 C mains cord with 3-pin plug	98	o 16 A for every other nation			
Rear Panel	Indicators  Controls  Maintenance  Audio signal input connectors Loudspeaker output connectors Network data port RS485 DSP preset selection  Aux voltage AC mains Controls	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind fron 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NL4 1 x RJ45 with activity LED 2 x Pushbutton (stepping tl 2 x 4 LED preset indicators 1 x 2-pin Phoenix type MC IEC C13 16 A connector; A 2 x link switch, linking anal	een, 1 x red 1 x yellow pot per channel; mains switch it panel  R female MD with 2 rotary address switch irrough bank of 4 presets) 3 1.5/2-ST-3.81 C mains cord with 3-pin plug og inputs 1 & 2 and 3 & 4	98	o 16 A for every other nation			
Rear Panel	Indicators  Controls  Maintenance  Audio signal input connectors  Loudspeaker output connectors  Network data port RS485  DSP preset selection  Aux voltage  AC mains  Controls  n  Dimensions	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind fron 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NL4 1 x RJ45 with activity LED 2 x Pushbutton (stepping to 2 x 4 LED preset indicators 1 x 2-pin Phoenix type MC IEC C13 16 A connector; A 2 x link switch, linking anal W 483 mm / 19", H 44.5 mr	een, 1 x red 1 x yellow pot per channel; mains switch it panel  R female MD with 2 rotary address switch irrough bank of 4 presets) 1.5/2-ST-3.81 C mains cord with 3-pin plug og inputs 1 & 2 and 3 & 4 in / 1 RU, D 358 mm / 14.1"	es 15 A for US, IEC Schuke	·			
Front Panel Rear Panel Construction	Indicators  Controls  Maintenance  Audio signal input connectors Loudspeaker output connectors Network data port RS485 DSP preset selection  Aux voltage AC mains Controls	4 LEDs per channel: 3 x gr 2 status LEDs: 1 x green, 1 stepped level attenuator Dust filter foam behind fron 4 x balanced Neutrik ® XLI 4 x Neutrik® Speakon NL4 1 x RJ45 with activity LED 2 x Pushbutton (stepping to 2 x 4 LED preset indicators 1 x 2-pin Phoenix type MC IEC C13 16 A connector; A 2 x link switch, linking anal W 483 mm / 19", H 44.5 mr	een, 1 x red 1 x yellow pot per channel; mains switch it panel  R female MD with 2 rotary address switch rrough bank of 4 presets) is 1.5/2-ST-3.81 C mains cord with 3-pin plug og inputs 1 & 2 and 3 & 4 in / 1 RU, D 358 mm / 14.1" and steel removable dust co	es 15 A for US, IEC Schuke	o 16 A for every other nation ront panel, screw hole protec			

External high-pass filter and output voltage limiter required.
 External high-pass filter required.

