## PROFESSIONAL AUDIO ENGINEERING

AMPLIFIERS SOFTWARE MIXERS







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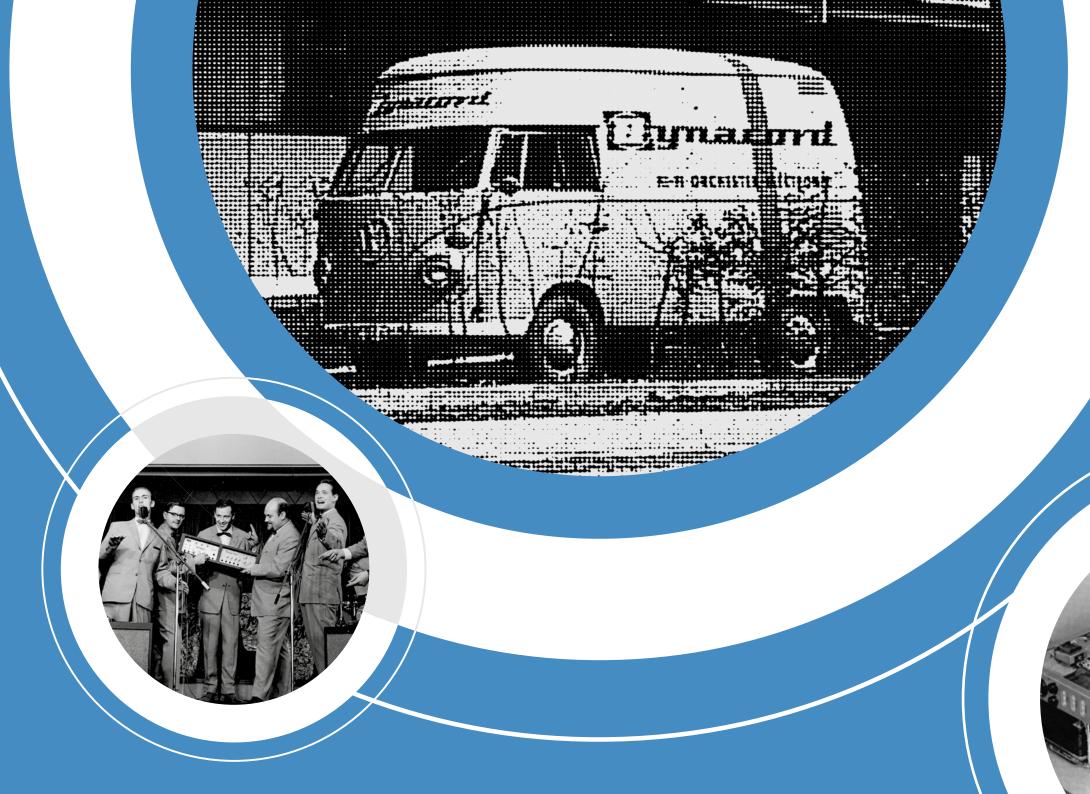
SONICUE / IRIS-Net / MARC

#### **Mixers**

#### Introduction

PowerMate

CMS - Compact Mixing System





## sound quality without compromise is in our dna

FOR MORE THAN 70 YEARS, DYNACORD HAS DESIGNED AND ENGINEERED PROFESSIONAL AUDIO ELECTRONICS — PRODUCTS THAT OFFER UNPARALLELED PERFORMANCE AND PREMIUM QUALITY, THE PERFECT BALANCE OF POWER AND PRECISION.

We have a passion for providing world-class amplification and processing that we share with our users. Our engineering competence is second to none in the industry – sound quality without compromise is in our DNA and in every circuit we make. With each innovation we transfer generations of knowledge and experience, always pushing technology forward, always reinforcing our customers' trust.

We seek to surpass the highest standards of today's audio professionals, audiences and performers. Our industrial design combines finely tuned form with feature-rich functionality across every detail—clean lines and clean sound—and our dedication to durability is demonstrated in the industry's most rigorous product testing program. In applications where failure is not an option, you can rely on Dynacord to be heard loud and clear.



#### core technologies



## cycle by cycle current limiter

Continue to make sound

Maximizes reliability under all load conditions

Able to drive low impedance

## variable load drive (vld)

Patented technology allowing optimal allocation of output power in multichannel amplifiers

Thanks to direct drive technology, combine Low-Z or High-Z 70V/100V loudspeakers using the same amplifier without the need of transformers

In low-z mode drive each channel with output power from 100W to the maximum amp output across the complete impedance range

#### **FIR drive**

Finite Impulse Response Filter (FIR), drive optimizes loudspeakers transducer linearity for precise, balanced sonic output

Advanced limiter algorithms offer independent peak and thermal transducer protection, even in most demanding applications

FIR filters available for a large range of Electro-Voice portable and install loudspeakers







Maximizes output power and reduces idle power

Complete digital monitoring and control

Wide range input for maximum flexibility

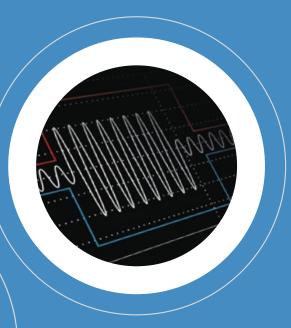
Highest reliability thanks to Dynacord's protection algorithms

#### junction temperature modelling

Overheat component protection by constant temperature modelling

Ensures maximum output power

Provides highest operational reliability



## eco rail technology

Reduces standby losses to a minimum

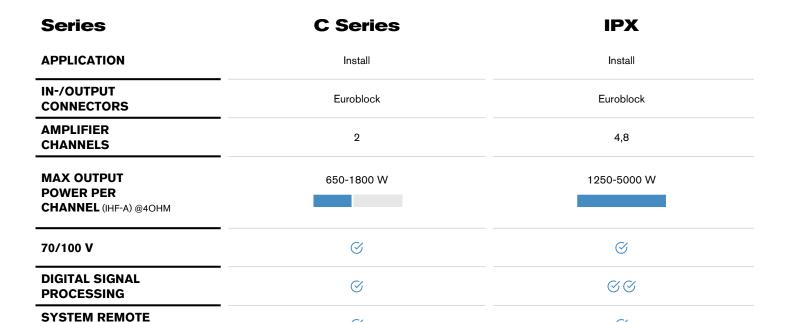
All monitoring functions are maintained

No transient currents or distortions during switching

Fully automatized – no user interaction needed

# Fixed Install Amplifiers Built to thrive in the most demanding conditions, Dynacord amplifiers for permanent installation are trusted worldwide to deliver faultless results, round-the-clock, year after year. With intelligent system integration plus remote control and supervision software, Dynacord amps are driven by experience.





 $\otimes$ 

 $\otimes$ 

3 years

200000 ET - ET -

 $\otimes$ 

 $\otimes$ 

 $\otimes$ 

5 years

WARRANTY

OMNEO (DANTE & OCA)

**CONTROL PORT** (GPIO)

CONTROL

<sup>\*</sup> optional with accessories

## **IPX Series**

THE MULTI-CHANNEL IPX 5:4, 10:4, 10:8 AND 20:4 POWER AMPLIFIERS MARK AN UNPRECEDENTED STANDARD FOR SOUND SYSTEM AMPLIFICATION IN MID TO LARGE-SIZED PERMANENT INSTALLATIONS.

The high-performance amplifiers offer seemingly unlimited power and pristine audio quality. IPX series multi-channel power amplifiers are featuring OMNEO IP networking architecture and groundbreaking audio performance. They embody several proprietary amplifier technologies developed by Dynacord engineers and Dynacord's reknown Variable Load Drive (VLD).

#### **Software**

IPX amplifiers have integrated OMNEO networking (Dante audio and OCA/AES70 control) and can be configured, controlled and operated from both IRIS-Net as well as SONICUE sound system software suite



#### **Main Features**

Three 4-channel models and one 8-channel model, offering a power density of 5 kW, 10 kW and even 20 kW from a single amplifier with all channels driven

Advanced 96 kHz high-resolution digital signal processing for the highest performance, internal analog-to-digital conversion with ultra-low latency, and a superior signal-to-noise ratio

Eco Rail technology developed by Dynacord helps to reduce overall power consumption up to  $50\,\%$ 

VLD technology as well as the newly developed parallel and parallel-bridged operation modes. VLD technology allows the available output power of e.g. 1,250 watts per channel to be used at either 4 or 8 Ohms, or via 70 V or 100 V lines in direct drive





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	IPX5:4	IPX10:4	IPX10:8	IPX20:4		
CHANNELS	4	4	8	4		
MAX OUTPUT POWER PER CHANNEL (IHF-A) @40HM*	1250 W	2500 W	1250 W	5000 W		
BRIDGING / PARALLEL	⊗/⊗	⊗/⊗	⊗/⊗	-/⊗		
70/100/140**/200** V OUTPUT POWER	1250 / 1250 / 2500 / 2500 W	2500 / 2500 / 5000 / 5000 W	1250 / 1250 / 2500 / 2500 W	3550 / 5000 / 5000 W / -		
SIGNAL TO NOISE RATIO (A-WEIGHTED)	115 dB	115 dB	115 dB	118 dB		
AUDIO INPUT		analog (eurol	block), Dante			
SAMPLING RATE		96 kł	Hz ***			
DIGITAL SIGNAL PROCESSING	User-EQ: 12 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Lo-ShelvQ, Hi-ShelvQ, Hi-Pass, Lo-Pass and Notch; 2 filters of them withadditional asymmetric filter type User Delay: 0 to 2000 ms per channel (units: µs, ms, s, cm, m, inches, feet)  Array EQ: 5 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Lo-ShelvQ, Hi-Pass, Lo-Pass, and All-Pass Array Delay: 0 to 500 ms per channel (units: µs, ms, s, cm, m, inches, feet)  Speaker EQ: 10 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Hi-Pass, Lo-Pass, and All-Pass  Speaker X-Over: Hi-Pass and Lo-Pass per channel, 6/12/18/24/30/36/42/48 dB Bessel/Butterworth, 12/24/48 dB Linkwitz-Riley; Alignment Delay, 0 to 20 ms per channel  Speaker FIR: up to 1025 taps, Linear Phase Filter, Linear Phase Brickwall X-Over  Speaker Limiters: Peak Anticipation Limiter and RMS/TEMP Limiter per channel  Other: Source Selection and Mix, Level, Mute, Polarity, Sine and Noise Generator, Level Meters, Impedance Measurement, and Load Monitoring					
PROTECTION	Audio Limiters, High Temperature, DC, HF, Short Circuit, Back-EMF, Peak Current Limiters, Inrush Current Limiters, Turn-on Delay, Mains Circuit Breaker Protection, Mains Over-/Undervoltage Protection					
CONTROL PORTS (GPIO) IN / OUT	3					
SYSTEM REMOTE CONTROL	SONICUE, IRIS-Net (Dante, OCA/AES70)					
WEIGHT [LBS]	31,5	33	37,1	40,3		
DIMENSIONS (WXHXD)	19.02" x 3.46" x 20.2"					
ARTICLE CODE	IPX 5:4	IPX 10:4	IPX 10:8	IPX 20:4		
ACCESSORIES	PCO32A30-US Powercord, powerCon 32 to NEMA L6-30 mains connector, 2m / DC-RMK15 (rear rack mount kit)					

<sup>\*</sup> all channels driven \*\* bridge mode

<sup>\*\*\*</sup> switchable to 48kHZ

## **C** Series

## EQUIPPED WITH AN EXTREMELY ROBUST POWER SUPPLY AND A POWERFUL, LINEAR AMP DESIGN, FLAWLESS OPERATION IS GUARANTEED.

A sophisticated protection circuitry ensures safe, reliable operation under all conditions. All 4 models are also suitable for direct drive applications with 70V/100V speaker lines, providing high flexibility for a variety of install scenarios. In addition, the amplifiers feature Euro block connectors for convenient wiring, remote power-on delay, and GPIOs to interface with third-party controls. The onboard DSP allows multi-band PEQ, crossovers, limiting and delay per channel as well as channel grouping.

#### **Software**

Dynacord's Multi Amplifier Remote Control (MARC) software allows full configuration, control, and supervision of sound systems with multiple amplifiers. It offers multi-device control via PC-based GUI for configuration and system tuning of up to 16 amplifier channels, flexible control options and FIR presets. The software is provided free of charge and can be downloaded on Dynacord's website



#### **Main Features**

On-board DSP includes multi-band PEQs, crossovers, limiters and delay per channel; True channel grouping control with extra DSP capabilities including GEQ

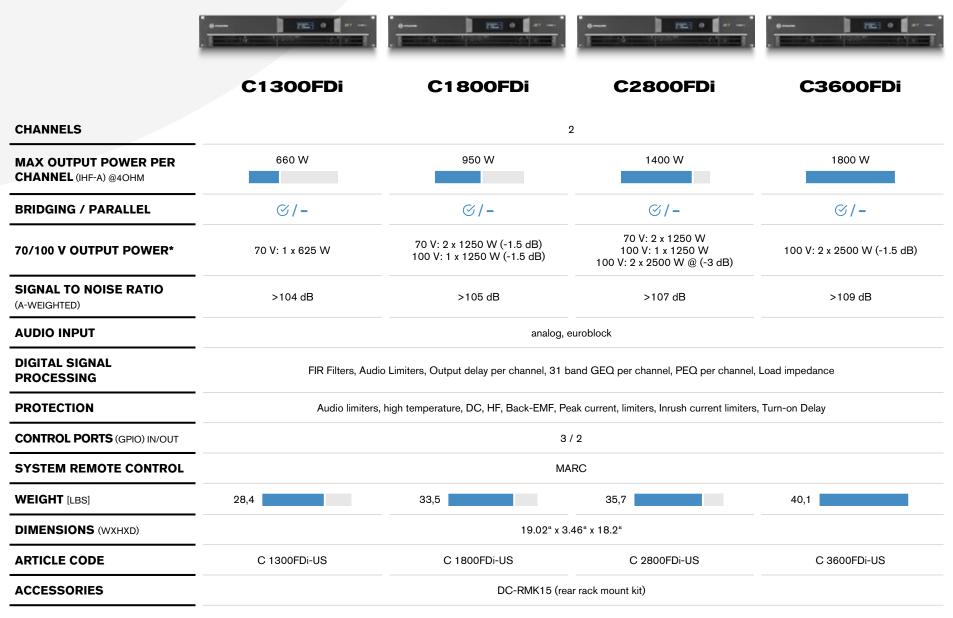
FIR-Drive combines technologies to create a sophisticated loudspeaker correction and protection system yielding a level of unparalleled performance

Intuitive, powerful control software makes configuration and real time control easy – up to 16 amp channels can be controlled and monitored simultaneously

Efficient standby power mode reduces running costs and power consumption by up to 90%, leading to a very low total cost of ownership







<sup>\*</sup> direct drive load capabillity







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Series	L Series	TGX Series
APPLICATION	Live	Live
IN-/OUTPUT CONNECTORS	NL4, XLR	NL4, XLR
AMPLIFIER CHANNELS	2	4
MAX OUTPUT POWER PER CHANNEL (IHF-A) @40HM	650-1800 W	2500-5000 W
DIGITAL SIGNAL PROCESSING		<b>⊗</b> ⊗
SYSTEM REMOTE CONTROL	$\otimes$	$\otimes$
OMNEO (DANTE & OCA)	_	⊗
CONTROL PORT (GPIO)	_	⊗
WARRANTY	3 years	5 years

## **TGX Series**

TGX 4-CHANNEL LIVE SOUND AMPLIFIERS FROM DYNACORD ARE ONE OF THE MOST POWERFUL ON THE MARKET AND REPRESENT THE PINNACLE OF PRO AUDIO ELECTRONICS ENGINEERING.

Along with unprecedented power density, they offer Dynacord's signature audio quality, advanced reliability and power efficiency. Engineered and manufactured in Germany, TGX amplifiers are built as the ultimate amplification solution for large-scale live performance sound applications. They embody several proprietary amplifier technologies developed by Dynacord engineering, one of the most experienced R&D teams in the audio industry.

A preconfigured System rack is available, including three TGX20 DSP amplifiers, power distribution, input and output interfaces and network redundancy.



#### **Main Features**

Market leading power density with 20kW in 2RU

Tour-grade 96 kHz DSP includes multi-band PEQs, crossovers, limiters and delay per channel

FIR-Drive and speaker preset library on board yield a level of unparalleled audio quality

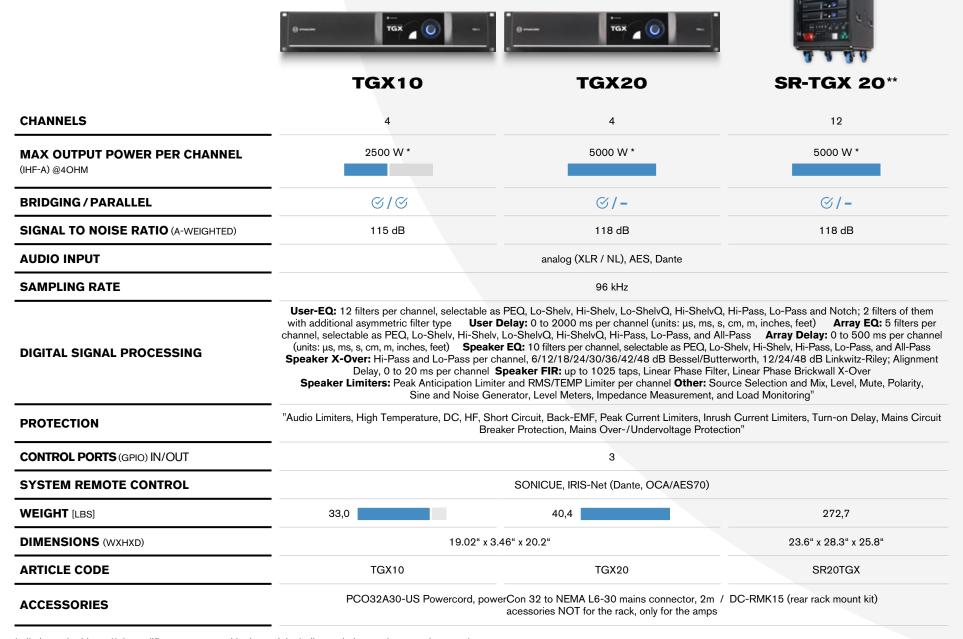
Integrated networking with proven Dante Audio and OCA / AES 70 remote control

Reliable voltage handling

Uncompromising stability down to 2 ohms







<sup>\*</sup> all channels driven \*\* 3 amplifiers are mounted in the rack including switches and connection panel

## **L Series**

L SERIES POWER AMPLIFIERS PROVIDE A BEST-IN-CLASS, TOUR-GRADE FEATURE SET THAT BRINGS REAL PROFESSIONAL PERFORMANCE TO A NEW, MORE ACCESSIBLE PRICE POINT.

Like all Dynacord amplifiers, the L Series offers high-quality components and truly professional processing power and performance characteristics. Its engineering and applied technologies enable exceptional sound quality with plenty of headroom. Equipped with an extremely robust power supply and a powerful linear amp design, flawless operation is guaranteed – even in the most demanding environments. A sophisticated protection circuit ensures safe, reliable operation under all conditions.

#### **Software**

Dynacord's Multi Amplifier Remote Control (MARC) software allows full configuration, control, and supervision of sound systems with up to eight amplifiers in one project

PC-based GUI for configuration and system tuning of up to 16 amplifier channels, flexible control options and FIR-Drive speaker settings

The software is provided free of charge and can be downloaded from Dynacord's website



#### **Main Features**

On-board DSP includes multi-band PEQs, crossovers, limiters and delay per channel; True channel grouping control with extra DSP capabilities including GEQ

FIR-Drive combines technologies to create a sophisticated loudspeaker correction and protection system yielding a level of unparalleled performance

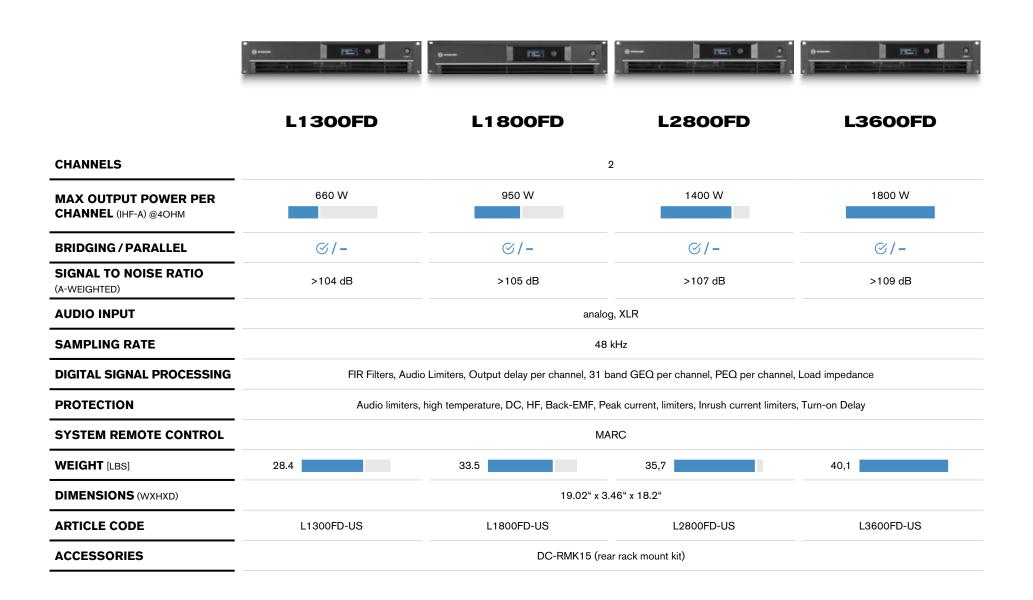
Intuitive, powerful control software makes configuration and real time control easy – up to 16 amp channels can be controlled and monitored simultaneously

High-performance bulletproof voltage handling

Engineered for constant stability at 2 ohms











## SONICUE

#### SOUND SYSTEM SOFTWARE

New, smooth way of working with OCA (AES70) controlled sound systems (TGX-, IPX- and RCM28 equipped amplifiers).

Intuitive guided workflow to design, control and supervise small to large sound systems

Work from the "speaker view" of the system

Integrated system visibility and direct access – see parameters system wide and edit if required

Dedicated interaction design with time saving fly-out interaction

Designed for third party plug-ins and interfaces with surrounding software

SONICUE is a new, smooth way of working with OCA(AES70) controlled sound systems.

### **IRIS-Net**

INTEGRATED SOFTWARE PLAT-FORM FOR REMOTE CONTROLL-ABLE DEVICES & SYSTEMS

Full system integration

Complete system monitoring and supervision

Custom user interfaces

Interface control and user access permissions

The configuration of the amplifiers includes the loading of factory speaker settings, including FIR-Drive settings with TEMP limiters.

IRIS-Net supports Ethernet, CobraNet, CAN bus and USB as well as OMNEO, Dante and AES70 (OCA), and is open for future standards.

## **MARC**

## MULTI AMPLIFIER REMOTE CONTROL SOFTWARE

Intuitive system control to design, operate and supervise up to eight L series and/or C series amplifiers

Configurable control groups with GEQ, PEQ and Delay for real time system editing

System scene manager for easy store and recall of user presets

Complete offline system editing for offsite configuration

The configuration of the amplifiers includes the loading of factory speaker settings, including FIR-Drive settings with TEMP limiters.









**CMS** 

**PowerMate** 

MODEL	600-3 / 1000-3 / 1600-3 / 2200-3	600-3 / 1000-3 / 1600-3 / 2200-3	
POWERED / NON-POWERED	non-powered	Powered	
MAX OUTPUT POWER (IHF-A) @ 4 OHM	_	1250 W	
AMPLIFIER CHANNELS	-	2	
CHANNELS (MONO + STEREO)	up to 18 + 4	up to 18 + 4	
MIC INPUTS	up to 22	up to 22	
AUXILIARIES (MON, FX, AUX)	up to 6	up to 6	
DIGITAL AUDIO INTERFACE	$\otimes$	$\odot$	
STEREO 24/48BIT MULTI EFFECTS PROCESSOR	2	2	
WARRANTY	3 years		

## **PowerMate**

WITH ITS POWERMATE MIXERS, DYNACORD HAS SEIZED POLE POSITION IN THIS SEGMENT OF THE MARKET BY VIRTUE OF THE QUALITY OF ITS SOUND, COMPONENTS AND FEATURES.

Designed for a wide variety of applications there's a choice between the very compact PowerMate 600 and the larger PowerMate 1000, 1600 and 2200. All PowerMates feature the same powerful, but lightweight 2 x 1250 W Class-D amplifier fulfilling the highest audiophile demands.



#### **Main Features**

Class-D high-performance power amplifier delivering 2 x 1250 watts per channel (IHF-A) into  $4\Omega$ 

2 editable digital effects devices with 100 presets each and 20 user memories each

Professional 4xIN / 4xOUT digital interface (USB) for the connection of a PC or Mac

Stereo equalizer in the master section

LPN Processing for small to medium-sized loudspeakers for greater punch and improved transparency in the bass and midrange of smaller loudspeakers

Made in Germany











#### POWERMATE 600-3

POWERMATE 1000-3

POWERMATE 1600-3

**POWERMATE** 2200-3

MAX OUTPUT POWER (IHF-A) @40HM	2 x 1250 W				
CHANNELS (Mono + Stereo)	4 + 4	6 + 4	12 + 4	18 + 4	
MIC CHANNELS	6	10	16	22	
AUX SEND / MONITOR / FX SENDS	1/1/1		2/2/2		
DIGITAL AUDIO INTERFACE	4 x 4 USB 2.0, 96 kHz				
MASTER EQ	9-band	11-band			
EFFECTS					
EFFECTS PRESETS / REMOTE CONTROL	100 factory + 20 user / Footswitch + MIDI				
ECHO / REVERB / HALLS, PLATE / ECHO / DELAY / FANGER / CHORUS / DOUBLING	8	⊗	©	$\otimes$	
SPEAKER PROTECTION ADJUSTABLE RMS LIMITER (against speaker thermal overload)	8	<b>⊗</b>	<b>⊗</b>	8	
WEIGHT [LBS]	12,8	20,9	26,5	32,0	
DIMENSIONS (WXHXD)	16.4" x 4.3" x 13.7"	20.1" x 6.1" x 19.6"	26.1" x 6.1" x 19.6"	32.2" x 6.1" x 19.6"	
ACCESSORIES					
GOOSENECK LAMP 4-POL	LitteLite	LitteLite	LitteLite	LitteLite	
FS 11 FOOT SWITCH	FS 11	FS 11	FS 11	FS 11	

# **CMS - Compact Mixing System**



DERIVED FROM THE ICONIC POWERMATE, DYNACORD'S COMPACT MIXING SYSTEM CONSOLES PRESENT THE PEAK IN THEIR SEGMENT BY VIRTUE OF AUDIO QUALITY, COMPONENTS AND FEATURES.

By integrating a high-quality analog mixer with finest digital 24/48-bit studio-grade effect processors, the CMS series represent the preferred solution for a large number of demanding profesisonal audio applications. Offering all the level of quality, the larger CMS 1000, 1600 and 2200 offer the full feature set, while the CMS 600 has been optimized for size.

#### **Main Features**

High-Quality FX processors, editable with 100 factory and 20 user presets

Professional 4x4 24-bit/96kHz USB interface, recording software and MIDI interface for FX control

Stereo EQ for the main mix

First-class components (e.g. ALPS faders and potentiometers)

Large, contrast rich OLED display

Lightweight and compact package

Made in Germany











	CMS 600-3	CMS 1000-3	CMS 1600-3	CMS 2200-3
CHANNELS (MONO + STEREO)	4 + 4	6 + 4	12 + 4	18 + 4
MIC CHANNELS	6	10	16	22
AUXILLARYS AUX SEND / MONITOR / FX SENDS	1/1/1		2/2/2	
DIGITAL AUDIO INTERFACE	4 x 4 USB 2.0, 96 kHz			
MASTER EQ	9-band	11-band		
EFFECTS				
EFFECTS PRESETS / REMOTE CONTROL	100 factory + 20 user / Footswitch + MIDI			
ECHO / REVERB / HALLS, PLATE / ECHO / DELAY / FANGER / CHORUS / DOUBLING	8	$\otimes$	<b>⊗</b>	<b>⊗</b>
WEIGHT [LBS]	12,8	20,9	26,5	32,0
DIMENSIONS (WXHXD)	16.4" x 4.3" x 13.7"	20.1" x 6.1" x 19.6"	26.1" x 6.1" x 19.6"	32.2" x 6.1" x 19.6"
ACCESSORIES				
LID	-	<b>⊘</b> LID-1000	<b>⊘</b> LID-1600	-
CARRYING BAG		_	_	_
DUST COVER	_	_	_	
RACK MOUNT KI <b>T</b>	✓ RMK-CMS600-3	✓ RMK1000 CMS-III	_	_
GOOSENECK LAMP 4-POL				
FS 11 FOOT SWITCH			─────────────────────────────────────	

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