

CL

Power Amplifiers



CL800 · CL1200 · CL1600 · CL2000

PHILOSOPHY

For decades, **DYNACORD** has been one of the leading manufacturers in the pro audio sector and has established a commanding position in the amplifier market thanks to the excellent audio performance, absolute reliability and high stability of the **Linear Precision series**.

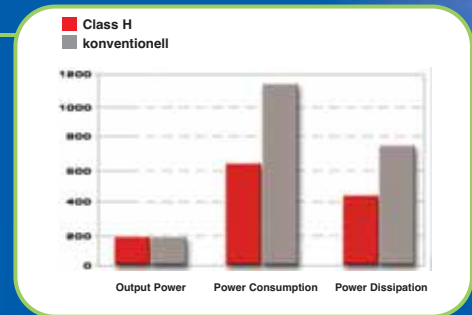
TECHNOLOGY

Through the use of optimized power supplies with toroidal transformers (on account of their low stray fields) and the intelligent application of **class H technology** (CL 800: class AB), headroom way above the declared nominal power has been achieved as well as a notable reduction in weight and waste heat. CL power amplifiers satisfy the extreme demands of life on the road and deliver between a nominal **2x 400 watts** and **2x 1000 watts into 4 ohms**. Even complex loads as low as 2 ohms can be driven with absolute reliability. Ranging in weight from only **13 kg** to **18 kg**, two or more CL power amplifiers can be combined in racks that remain easy to transport.



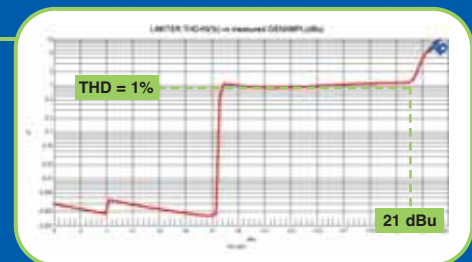
CLASS - H TECHNOLOGY

With this technology, two different power supply rails are permanently available internally to the power amplifier blocks. For most of the program material, the lower operating voltage is able to reproduce the audio signal flawlessly; however, as soon as there are dynamic peaks, the amplifier switches internally and at high speed to the higher supply voltage. Since for long periods the power amplifier blocks are operating with the lower supply voltage, there is considerably less power dissipation than with conventional class AB power amplifiers, which also means considerably less waste heat.



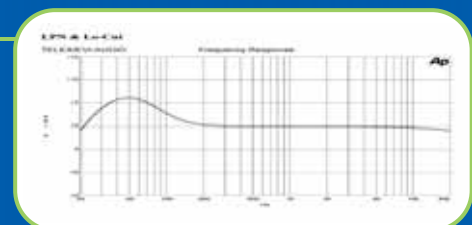
DYNAMIC LIMITERS

Dynamic limiters are general components in all DYNACORD power amplifiers. High-speed audio processors are continuously comparing the input signal to the output signal, and in the event of any non-linearity, the processors send control signals to the limiters, which operate dynamically upon the input level. As a result, the THD all the way up to 21 dBu is limited to an inaudible 1% at the output.



LPN + LO-CUT

The retrofitable NRS 90268 kit, which is available as an option for all CL power amplifiers, combines the patented LPN (low-pass notch) filter with a low-cut filter. These eliminate transient non-linearities in the low frequency range in small to medium-sized full-range speakers and thereby considerably extend the reproducible range at the bottom end. The acoustic result is bass reproduction with more punch and greater substance.



FRONT

The dB-calibrated level controls are implemented as ultra-precise detent potentiometers that are recessed in the front panel to protect them from accidental contact. Power, Protect, Signal and Limit LEDs provide a quick overview of the operating status.



REAR

The electronically balanced XLR IN / OUT sockets are provided for direct operation with professional mixing consoles and signal processors. All the models in the CL series are designed for a Constant Gain of 32 dB. The power outputs for Channels A and B are on Speakon connectors. A Ground Lift switch is also provided to separate the chassis ground from the signal ground in order to eliminate ground loop hum.



CL SERIES



CL800 Rated at 2 x 600 watts into 2 ohms and 2 x 400 watts into 4 ohms, the smallest power amplifier in the CL series, which uses class AB technology, weighs in at a mere 13 kg and is therefore the ideal amp for fairly small full-range cabinets.



CL1200 Delivering a reliable 2 x 900 watts into 2 ohms and 2 x 600 watts into 4 ohms, this is the ideal amplifier for a wide variety of full-range cabinets and MF/HF components in multi-way systems.



CL1600 Rated at 2 x 1100 watts into 2 ohms and 2 x 800 watts into 4 ohms, this amplifier is ideal for use with professional full-range cabinets and also passive TOP/SUB combinations.



CL2000 The flagship of the CL series delivers a hefty 2 x 1400 watts into 2 ohms and 2 x 1000 watts into 4 ohms, whilst weighing a mere 18 kg. Ideal for driving large subwoofer arrays as well as full-range and MID-HIGH components with high power handling.

SAFETY PACKAGE

The complete CL series is equipped with protections against overheating, overloading, short-circuits, DC and HF as well as a Back-EMF protection. With the Soft Start system, the power outputs are switched on via a relay when a safe operational state has been reached and a power-up delay prevents the mains fuses being activated.

TECHNICAL SPECIFICATIONS

	CL800			CL1200			CL1600			CL2000		
Load Impedance	2 ohms	4 ohms	8 ohms	2 ohms	4 ohms	8 ohms	2 ohms	4 ohms	8 ohms	2 ohms	4 ohms	8 ohms
Max. Midband Output Power THD = 1%, 1kHz	600 W	400 W	240 W	900 W	600 W	350 W	1100 W	800 W	500 W	1400 W	1000 W	600 W
Rated Output Power THD < 0.1%, 20Hz ... 20kHz	----	300 W	150 W	----	500 W	250 W	----	700 W	350 W	----	900 W	450 W
Max. Single Channel Output Power Dynamic Headroom, IHF-A	1100 W	580 W	300 W	1450 W	850 W	450 W	2200 W	1200 W	625 W	2700 W	1450 W	750 W
Max. Single Channel Output Power Continuous, 1kHz	800 W	480 W	270 W	1200 W	720 W	410 W	1500 W	950 W	550 W	1900 W	1150 W	650 W
Max. Bridged Output Power THD = 1%, 1kHz	----	1200 W	800 W	----	1800 W	1200 W	----	2200 W	1600 W	----	2800 W	2000 W
Maximum RMS Voltage Swing THD = 1%, 1kHz	50 V			62 V			72 V			80 V		
Power Bandwidth , ref. 1kHz THD = 1%, half power @ 4 ohms	10Hz ... 60kHz											
Voltage Gain , ref. 1kHz	32.0 dB											
Input Sensitivity rated power @ 8 ohms, 1kHz	+1.15 dBu (0.88 V rms)			+3.2 dBu (1.12 V rms)			+4.7 dBu (1.33 V rms)			+5.8 dBu (1.51 V rms)		
THD at rated output power MBW = 80kHz, 1kHz	< 0.05%											
IMD-SMPTE , 60Hz, 7kHz	< 0.02%											
DIM 30 , 3,15kHz, 15kHz	< 0.01%											
Maximum Input Level	+22 dBu (9.76 V rms)											
Crosstalk ref. 1kHz, at rated output power	< -80 dB											
Frequency Response , ref 1kHz	15Hz ... 40kHz (-1dB)			15Hz ... 40kHz (-1dB)			15Hz ... 40kHz (-1dB)			15Hz ... 40kHz (-1dB)		
Input Impedance , active balanced	20 kohms											
Damping Factor , 1kHz	> 300											
Slew Rate	25 V/μs			30 V/μs			35 V/μs			35 V/μs		
Signal to Noise Ratio , A-weighted	103,5 dB			105,5 dB			107 dB			107 dB		
Output Noise , A-weighted	< -70 dB											
Output Stage Topology	Class AB						Class H					
Power Requirements	100V, 120V, 220V, 230V, 240 V; 50Hz ... 60Hz (factory configured)											
Power Consumption 1/8 max. output power @ 4 ohms	440 W			445 W			570 W			720 W		
Protection	Audio Limiters, High Temperature, DC, HF, Back-EMF, Peak current Limiters Inrush Current Limiters, Turn-On delay											
Cooling	Front-to rear, 3-stage fans											
Ambient Temperature Limits	+5° ... +40° (40°F ... 105°F)											
Safety Class	I											
Dimensions (W x H x D) mm	483 x 88.1 x 386.8											
Weight	13.5 kg (30.8 lbs)			15 kg (33 lbs)			16 kg (35.2 lbs)			18.2 kg (40.1 lbs)		
Optional Accessory:												
Rear Rackmount 15.5"	D112 930 (NRS90262)											
Rear Rackmount 18.0"	D112 933 (NRS90264)											
LPN + Lo-Cut Filter	D112963 (NRS 90268)											

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