

E-Serie - Power Plant *a switch-mode integrated amplifier*

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The core of the E-series is the POWER PLANT, an integrated amplifier which simply exudes power and offers wonderful sound.

In the tradition of our legendary transistor and valve output stages we developed the pre-amplifier for optimum sound quality, neutrality and ultra-wide dynamics. Naturally the unit features a two-stage volume control with ALPS precision potentiometer for a wide overload margin and good signal-to-noise ratios, plus gold-contact relays for the input select switches to guarantee freedom from distortion and noise, and an oversized mains power supply section with a torroidal transformer for low interference and separate buffering of each stage; this ensures that the amplifier has huge energy reserves - just as you would expect from T+A High-End equipment. A Flat switch is provided, so that the sophisticated tone controls and loudness function can be removed completely from the signal path when desired.

The power output stages are new, and represent a further development of the outstanding output stages employed in our TCI High-End active loudspeakers. These are switch-mode power amplifiers ("digital output stages") whose output signal is generated by a large number of very short positive and negative pulses. These new switch-mode output stages were developed entirely in-house, in contrast to the "off-the-peg" integrated ready-made IC amplifiers used by other producers, and are of discrete construction, equipped with the latest ultra-fast MOSFET transistors and high-energy intelligent driver modules.

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External connection



The amplifier features five high-quality inputs which are selected using gold-contact relays, and one of them can be fitted with the internal R-series PHE MM or PHE MC module to provide a phono input (earth terminal fitted as standard). REC OUT and PRE OUT are also present. The solid metal loudspeaker terminals are gold-plated and devoid of ferro-

magnetic metals. An RS 232 socket makes it possible to install updates, and a control interface is also present. A new high-performance “E-Link” bus system was developed for the E-series, and this passes all commands from the F 100 remote control handset between the devices connected to the system. If the POWER PLANT is operated without the CD PLAYER or MUSIC PLAYER, a separate FBS 100 remote control handset is required in order to control it remotely. In this case the E 2000 IR receiver is connected to the RC IN socket.

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Technical highlights

The basic principle upon which our new amplifier is based is known as the PWM output stage (PWM = Pulse Width Modulation), with a modulator of analogue construction. The output stages feature an analogue feedback circuit, which eliminates any problems caused by voltage fluctuations in the mains power supply,



and thereby excludes the possibility of signal distortion induced by the power supply voltage; this is a problem which is otherwise unavoidable with amplifiers exploiting pure “forward concepts”. However, the level of feedback is relatively low, and is also frequency-dependent (stronger in the bass, where large currents flow, and diminishing in the mid-range area). The net result is a very controlled, fluent sonic image which never tends towards edginess, combined with an accurately contoured and well-defined bass. The liveliness and musicality of this concept is quite extraordinary. If designed correctly, digital output stages can sound simply wonderful, and at the same time they can also generate enormous power combined with significantly improved efficiency and therefore little waste heat. Such amplifiers are capable of driving even power-hungry loudspeakers effortlessly, since the POWER PLANT supplies peak currents of up to fifty Amps.

-  Solid metal case: pressure-cast aluminium side panels, extruded aluminium profile front panel and cover, steel chassis cradle.
-  High-performance switch-mode output stage with generous reservoir capacity (>4000 µF), of discrete construction with analogue modulator (PWM).
-  Input circuit board featuring high-quality gold-plated sockets. Inputs are selected using gas-tight gold-contact relays and DC-regulated buffer amplifiers. Optional internal phono module.
-  High-power toroidal transformer, extremely stable under load. De-coupled floating mount.
-  State-of-the-Art pre-amplifier with High-End Audio OP-amps, double potentiometers in the front profile (located on the potentiometer behind the front panel).

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Specifications:

Audio	4 Ohms	8 Ohms
Output power (RMS) per channel	2 x 240 Watt	2 x 140 W

Output power (Peak) per Channel 2 x 380 Watt 2 x 210 Watt
Frequency response 1 Hz - 60 kHz (+/- 3 dB)
Total harmonic distortion < 0,005 %
Intermodulation < 0.005 %
Channel separation > 80 dB
Inputs 5 x Highlevel 250 mV / 20 kOhm
optional MM or MC Phonomodul
Outputs Preamp, Headphone > 50 Ohm, Tape 250 mV

Dimensions (H x H x D) 12 x 44 x 39 cm
Weight 12 kg
Remote control via Music-Player or optional accessory
Interface E-Link and RS232
Finishes black case with silver side-panels
silver case with black side-panels

We reserve the right to alter technical specifications

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