LAB.GRUPPEN

POWER AMPLIFIER

fP 2600

KEY FEATURES:

2 × 430 watts @ 8 Ω
2 × 840 watts @ 4 Ω
2 × 1200 watts @ 2 Ω
(Measured just below clip level, with both channels driven)

- **Compact design, 2U high**
- **Low weight, 8 kg (18 lbs)**
- **MLS™ Switch: Lab.gruppen's unique power matching for different loads**

NEW FEATURES:

- **Multiple position gain switch**
- **Easily accessible dust filters**
- **Improved low-end power bandwidth**
- **Link connector with XLR-type connector**
- **Bridged mono outputs in one Speakon® connector**
- **Extruded front panel for increased stability**

The fP 2600 is a lightweight and space-saving power amplifier, ideal for use in high quality touring sound systems as well as in demanding permanent installations.

The latest semiconductor technology is utilized in the new ferrite Power (fP) amplifiers. This, together with Lab.gruppen's proprietary copper cooling system, Intercooler®, enhances the 2 ohms capability. Two easily accessible dust filters on the front ensure a clean front-to-rear airflow.

A new Bi-phase wiring scheme also increases the capacity of the switch mode power supply. This extends the power bandwidth in the low end.

Besides the traditionally superb Lab.gruppen sonic performance, there is a full line of features to make the fP family functional in all situations from installation to high performance live sound systems:

Regulated switch mode power supply
Today there are many lightweight, switch-mode amplifiers in the market. However, the unique Lab.gruppen switch-mode power supply technology offers a number of essential advantages that make it superior to other, seemingly similar power supply designs.

The most important features are the regulated power supply and the extreme power efficiency. The regulated power supply easily deals with a very high variation in the AC mains voltage: it can drop by up to 20% below its nominal level – e.g. to 180 V (90V) instead of 230 V (115 V) – without any problem. Perhaps even greater benefits result from the extreme efficiency of Lab.gruppen amplifiers: only a fraction of the energy from the AC mains is turned into heat. A regulated power supply also presents some other sonic advantages, such as better cone control and the same fast response as a conventional power supply.

Multiple positions Gain switch
To meet the demands for a flexible gain structure in the system, Lab.gruppen offers a multiple position gain DIP switch. The maximum amplifier gain can be set to all industry standards: 20, 23, 26, 29, 32, 35, 38 and 41 dB.

Sophisticated protection circuitry, combining:
– **ALS™ short circuit protection;** the Adaptive Limiting System permits very high peak currents, but keeps the amplifier within the Safe Operation Area.
– **DC protection;** protects against infrasonic signals.
– **VHF protection;** protects the loudspeakers against strong very high frequency non-musical signals above the audible range.
– **Thermal protection;** prevents the amplifier from being overheated. The protection indicators on the front panel are switched on, as a warning, before the protection process is initiated.
– **AC protection;** shuts down the power supply if the line voltage is outside the operating voltage.
– **Clip limiter;** prevents severely clipped waveforms from reaching the loudspeakers, whilst maintaining full peak power.

SPECIFICATIONS

fP 2600

Max output power [1]	EIA	EIA	FTC
EIA at 1 kHz and 1% THD			20–20 kHz at 0.1% THD
MLS-switch	–3 dB	0 dB Full	0 dB Full
16 Ω per channel	110 W	215 W	210 W
8 Ω per channel	240 W	430 W	420 W
4 Ω per channel	430 W	840 W	800 W
2 Ω per channel	870 W	1200[2], 1540[3] W	1175 W
16 Ω bridged	480 W	860 W	840 W
8 Ω bridged	870 W	1680 W	1600 W
4 Ω bridged	1740 W	2400[2], 3000[3] W	2350 W

Max output voltage		
8 ohms load, MLS @ 0 dB	45 Vrms	59 Vrms
Peak voltage, no load	65 V	85 V

Distortion etc.	
THD 20 Hz–20 kHz and 1 W to full power	0.04 %
THD @ 1 kHZ and –1 dB under clip	0.01 %
DIM 30 at –3 dB under clip	0.008 %
Hum and Noise	<–110 dB
Channel separation @10 kHz	70 dB
Output impedance	30 mΩ
Slew Rate	60 V/μs

Inputs	
Gain, selectable [dB]	20, 23, 26, 29, 32, 35, 38, 41
Impedance	20 kohm
Common mode rejection	50 dB

Front Panel		
Gain controls	(2) channel A, B	31 positions detent
Clip Indicator	(2) red LEDs	
Output headroom indicators	(10) green LEDs	Fast peak –slow release
Temp Indicator	(2) yellow LEDs	80°C at heatsink
Protect indicator	(2) yellow LEDs	>12 kHz at full power or shorted output
On Indicator	(2) green LEDs	DC rail voltage for channel A and B

Rear Panel	
Input connectors	(2) Neutrik Combo XLR type, 3 pin and 1/4″ jack
Link connector	(2) XLR type, 3 pin male
Output connectors	(2) Neutrik 4-pole Speakon® connectors

Switches:	
Clip limiter A and B	On–Off (switchable)
MLS switch	0, –3 dB
Link-switch	Ch. A–B

Power	**230 V version**	**115 V version**
Operation voltage	130 V–265 V AC	65 V–135 V AC
Minimum start voltage	175 V	85 V AC
Full output power at 4 ohms	180 V–265 V AC	90 V–130 V AC
Peak inrush current (Soft start limited)	5 A	5 A

Current Draw @ 4ohms		
Quiescent power (no load)	1 Arms	2 Arms
1/8 of full power (–9 dB)	6 Arms	12 Arms
1/3 of full power (–5 dB)	9 Arms	18 Arms
At full power (0 dB)	16 Arms	32 Arms

Net Dimensions	
mm	483 (19″) W × 88 H × 287 D
inch	19″ W × 3.5″ H × 11.3″ D

Shipping Dimensions	
mm	560 W × 180 H × 500 D
inch	22″ W × 7.1″ H × 19.7″D

Weight	
Net	8 kg (18 lbs)
Shipping	9.6 kg (21.2 lbs)

Approvals

CE:	
Emission	EN 55 103-1, E3
Immunity	EN 55 103-2, E3, with S/N below 1% at normal operation level[4]
Safety	EN 60065, class I
ETL listed:	Conforms to ANSI/UL STD 6500 and Certified to CAN/CSA E60065-00
FCC:	Complies with Class B digital device, Part 15 of the FCC Rules.

NOTES:
1) Specifications measured with 230 V AC
2) Component tolerance dependent
3) Continuous power, one channel driven or peak power both channels driven (Thermal protection may occur at high continuous power)
4) Normal operation level 1/8 of full power or –9 dB below clip level.

Lab.gruppen reserve the right to alter functions or the specification without prior notice.

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