

Nothing in audio will ever be the same

Resolution Series 118



The most amazing power amplifier ever

FM ACOUSTICS' status as the uncontested leader in precision amplification has been established through relentless research, thorough development and meticulous craftsmanship.

In celebration of FM ACOUSTICS fortieth anniversary proudly to be presented:
the culmination of all this experience, the FM 118.

The *Resolution Series*® 118 opens up a splendid new world in music appreciation, a world that until now has not been discovered.

This jewel of audio art has been crafted for the few aficionados who own equipment that allows the FM 118 to optimally reveal its phenomenal performance. Only forty pairs of the 118 will be crafted, each pair celebrating one year of FM ACOUSTICS' mission to create musical masterpieces.

Of course, the technical data read impressive, however, they can in no way represent the actual performance of this marvel. The 118 elicits a reproduction accuracy that just cannot be imagined.

That the *Resolution Series* 118 delivers tremendous dynamics with complete ease and unparalleled control of the diaphragms is conceivable. What is utterly astounding, however, is the unique realism, an incredibly lifelike presence and "be there" experience for which no technical terms nor words exist.

The value of the FM 118 is reflected in its research and development efforts (amortized to these forty pairs) and its unique status as the *most amazing power amplifier ever* crafted.
Subscription is by invitation.

FM 118, the milestone achievement that is becoming one of the most collectible items ever.

SPECIFICATIONS *Resolution Series*[®] 118

Specifications are often misunderstood, misused or utilized only to "sell" a product instead of indicating its actual performance capabilities. "Typical" specifications will not tell much about the true value of a certain component. Only *guaranteed minimum* data as specified for all FM ACOUSTICS products, together with carefully controlled listening tests will provide accurate and useful information. Please observe these distinctions if you make comparisons with data sheets of other products.

All specifications are guaranteed minimum figures for every FM 118.

The measurements and specifications below apply to a normal living room environment with a stable mains supply of at least 12.5A at 230V or 25A at 120V AC - for each amplifier.

Specifications, therefore, describe realistically achievable results in a well designed environment with separate dedicated mains supplies for each FM 118.

These conditions are realistically achievable, not just theoretical results obtained in a specialized laboratory.

Keep above in mind when comparing the specifications below with those of other products - which are "typical".

Minimum Power Output:

Precision non-bridged mono amplifier.

As a general indication of capability: the numbers below are measured into resistive load while operating with continuous music or continuously repetitive toneburst. These ratings, however, cannot fully represent the actual performance when driving precision transducers.

1000 W ^{peak}	into 8 Ohm
2000 W ^{peak}	into 4 Ohm
3500 W ^{peak}	into 2 Ohm
6000 W ^{peak}	into 1 Ohm
500 W ^{RMS}	into 8 Ohm
1000 W ^{RMS}	into 4 Ohm
1800 W ^{RMS}	into 2 Ohm
3000 W ^{RMS}	into 1 Ohm

Bandwidth including Anti-RFI circuit:

5 Hz to 60 kHz.

Internally adjustable to other frequencies

Hum and Noise: (22Hz-22kHz).

Below full power typically: -115 dB

Min. unweighted: better than -100 dB

Input:

Proprietary electronically balanced discrete enhanced class A circuitry, floating ground, non-inverting or inverting mode.

Input Sensitivity: 1,6 V^{RMS} for full output

Input Impedance:

At all level settings from balanced and unbalanced sources: 40 KOhm
Unbalanced sources are balanced right at the input of the FM 118.

Max. Audio Output Voltage:

180 V^{pp}.

Max. Audio Output Current:

Absolutely unlimited Peak current (600A peaks have been measured!) allows the FM 118 to drive any known load at peak performance level without any strain, harshness or any other negative influence on the audio signal.

There are no fuses or limiters in the amplifier or power supply circuitry; absolutely no form of current limiting, voltage limiting or any other kind of limiting is employed which is one reason for the breathtaking dynamic rendering.

Distortion:

0,003% THD

Gain:

30.5dB

Chassis Resonance Damping:

High-strength, dual anti-resonance chassis design effectively isolates sensitive electronic components from potential negative influence such as induced resonance. In addition, mechanical resonance damping on all panels is employed. The whole chassis including covers, plates, transformer mounting, transformer leaves, side panels, capacitor mountings etc. use FM ACOUSTICS' proprietary resonance suppression techniques.

Average Life Expectancy:

At 25°C ambient temperature, medium power, 10 h/day, 365 days per year: 40 years

AC Voltage:

fixed at either 100-115 or 200 - 230V, 50-60 Hz

Maximum Mains Over-voltage:

Short-term, not on switch-on: 170% V^{nominal}

Long-term, incl. switch-on: 110% V^{nominal}

Input Stage Common Mode Rejection:

>100dB at 50/60 Hz, even better at other frequencies.

Maximum Input Level: +20 dBm (7,75 V^{RMS})

Load Impedance:

No minimum impedance. Designed for less than 1 Ohm to 10'000 Ohm systems. Can drive any speaker impedance - dynamic, electrostatic, ribbon, planar etc. - without any limiting, compression or other negative effects on the audio signal.

The amplifier is fully protected against short circuits and other adverse conditions via a unique on board system that continuously surveys all important parameters. This system assures the amplifier is always working optimally.

Protection:

Unique protection systems proprietary to FM ACOUSTICS safeguard against adverse conditions such as short circuit, HF oscillation, RF interference, +DC and -DC offset, over-temperature, reduced air flow, blocked or dirty fan filters, damage to the protection system itself, etc. Open circuit stability protection assures that the amplifier remains absolutely stable even when no load is connected.

Power Consumption:

At idle: less than 200 W^{RMS}
 At 30% power: 1800 W^{RMS}
 At nominal power: 3030 W^{RMS}
 With dynamic signals: >10000 W^{peak}

Mains Supply Requirement:

No mains voltage drop when supplying:
 12.5 A cont., 60A^{peak} at 220V-240V
 25 A cont., 125A^{peak} at 110V-120V
 to each FM 118 amplifier.

Operating Temperature:

0°C to +40°C

Operating Humidity:

Short-term: 0 to 95%
 Long-term: 0 to 85%
 Amplifier works fine in high humidity areas but continuous high humidity may shorten lifetime of certain components somewhat.

Burn-in Time at Factory:

Minimum 200 hours (1000 thermal cycles)

Vibration Test at Factory:

Minimum 60 minutes (50'000 vibration cycles)

Input Connector:

Female XLR 3-pin balanced:

Non-inverting:	Inverting:
Pin 1: ground	Pin 1: ground
Pin 2: return (cold)	Pin 2: signal (hot)
Pin 3: signal (hot)	Pin 3: return (cold)

Output Connectors:

Paralleled FORCEPLUG 200, proprietary ultra low loss high-performance connector receptables.

Continuous current handling = 200A, 1200A^{peak}

Spare Parts Availability:

Guaranteed available for a minimum of 10 years. Guaranteed ex stock availability of 99% of all individual parts.

Weight:

46 kg net
 52 kg packed

Dimensions:

430 mm wide
 260 mm high
 550 mm deep

IEC, DIN and MIL (Military)**Standards of components used:**

IEC 68 = 55/155/56	DIN 384-4	MIL-R-STD 202 method 101, 103, 106, 204, 213, 301
IEC 68 = 55/085/21	DIN 40040	MIL-R-11804/2B/G
IEC 144/IP 65	DIN 40046	MIL-R-22097
IEC 40/100/56	DIN 40050 P 54	MIL-R-10509
IEC 115-1	DIN 41332 TYPE IIA	MIL-R-55182
IEC 384-9	DIN 44061	MIL-R-22684
IEC 384-8 IB	DIN 44112	MIL-R-45204 TYPE 2
IEC 68: 2-6	DIN 44356	MIL-R-23285
IEC 68: 55/085/056	DIN 45910 PART 1201	MIL-C-19978 B
IEC 68: 55/200/56	DIN 45921-107	MIL-VG-95-295
		MIL-S-23190 R.I.N.A. Nr. 5/206/85

Note: A pair of FM 118' requires two separate mains supplies that **each** can provide at least 12.5A at 200-240V (or 25A at 100-120V) without any mains voltage drop.

"You've never heard it so good!"

**FM ACOUSTICS LTD.**

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