

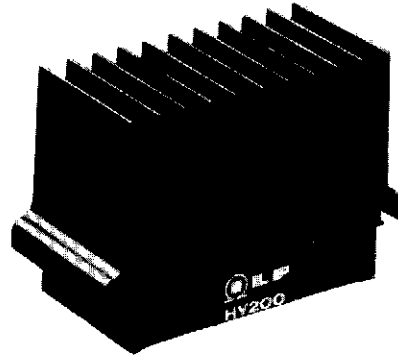
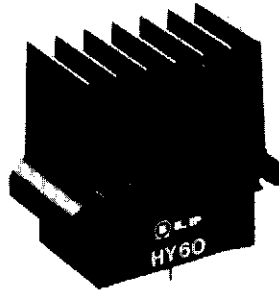


ILP

ELECTRONICS LTD

HYBRID POWER AMPLIFIERS

MODULES HY30, HY60, HY120, HY200, HY400



These modular hybrid amplifiers have been designed to provide the utmost in high fidelity performance. Encapsulation to an integral heatsink, together with internal safeguards to ensure full protection, make them both mechanically and electrically extremely rugged and therefore suitable for all audio applications. Connections are made simply and quickly by only five soldered terminations: input, output, positive supply, negative supply and earth.

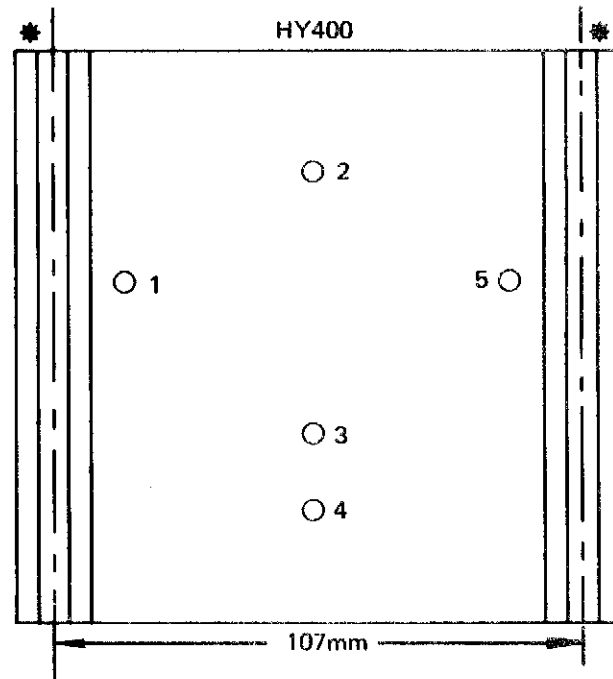
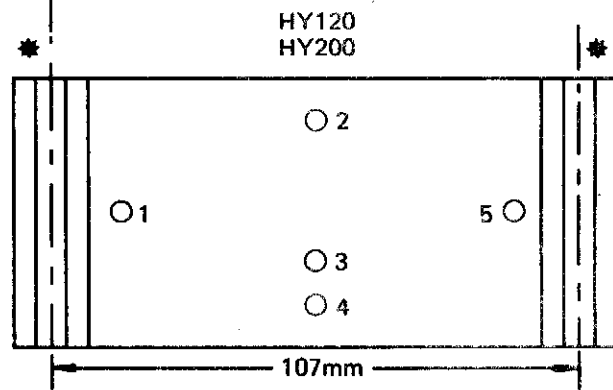
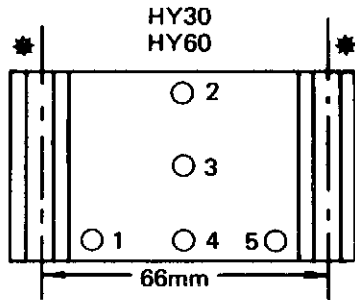
TECHNICAL SPECIFICATIONS

MODULE	HY30	HY60	HY120	HY200	HY400
Output Power	15W rms into 8Ω	30W rms into 8Ω	60W rms into 8Ω	120W rms into 8Ω	240W rms into 4Ω
Frequency Response (-3dB)	15Hz-50KHz	15Hz-50KHz	15Hz-50KHz	15Hz-50KHz	15Hz-50KHz
Total Harmonic Distortion (Typical) @ 1KHz	0.015%	0.015%	0.01%	0.01%	0.01%
Intermodulation Distortion (See note 6)	<0.006%	<0.006%	<0.006%	<0.006%	<0.006%
Signal to Noise Ratio (DIN AUDIO)	100dB	100dB	100dB	100dB	100dB
Slew Rate	15V/μs	15V/μs	15V/μs	15V/μs	15V/μs
Rise Time	5μs	5μs	5μs	5μs	5μs
Input Sensitivity	500mV	500mV	500mV	500mV	500mV
Input Impedance	100KΩ	100KΩ	100KΩ	100KΩ	100KΩ
Load Impedance	4Ω-∞	4Ω-∞	4Ω-∞	4Ω-∞	4Ω-∞
Damping Factor (8Ω @ 100Hz)	>400	>400	>400	>400	>400
Supply Voltage	+18v (±20vmax)	+25v (±30vmax)	+35v (±40vmax)	+45v (±50vmax)	+45v (±50vmax)
Size in mm	76 x 68 x 40 high	76 x 68 x 40 high	120 x 78 x 40 high	120 x 78 x 50 high	120 x 78 x 100 high
Weight in gms	240	240	410	515	1025
Fuse Rating (See note 4)	1.0 amps quickblow	1.5 amps quickblow	2.0 amps quickblow	2.5 amps quickblow	3.0 amps quickblow

Notes:

- For normal usage conditions these amplifiers need no supplementary heatsink; they must however, be mounted to allow a vertical flow of air through the fins.
- The amplifiers must be powered from a true split line (symmetrical) supply and under no circumstance should an attempt be made to use a single line.
- No input capacitor is required owing to an internal capacitor of 100v working.
- The protection circuits built into the amplifiers are designed to protect the amplifier against abnormal output conditions. For loudspeaker protection it is recommended that a quickblow fuse, of the rating given in the technical specification table, be mounted between the output terminal and the speaker. The rating of these fuses have been determined empirically to ensure fast rupture in the event of DC being presented to the loudspeaker and it is advisable not to use higher rated fuses without prior consent of the loudspeaker manufacturer, as ILP cannot accept responsibility for any loss or damage.
- 'Star earthing' techniques should be observed to avoid hum-loops i.e. all 0 volt connections, including speaker return leads, should be made at the power supply.
- Intermodulation Distortion was below the measureable limit of the equipment used. (B & K Spectrum Analyser type 2031).

PIN CONFIGURATION AND MOUNTING DETAILS



PIN CONNECTIONS (viewed from base)

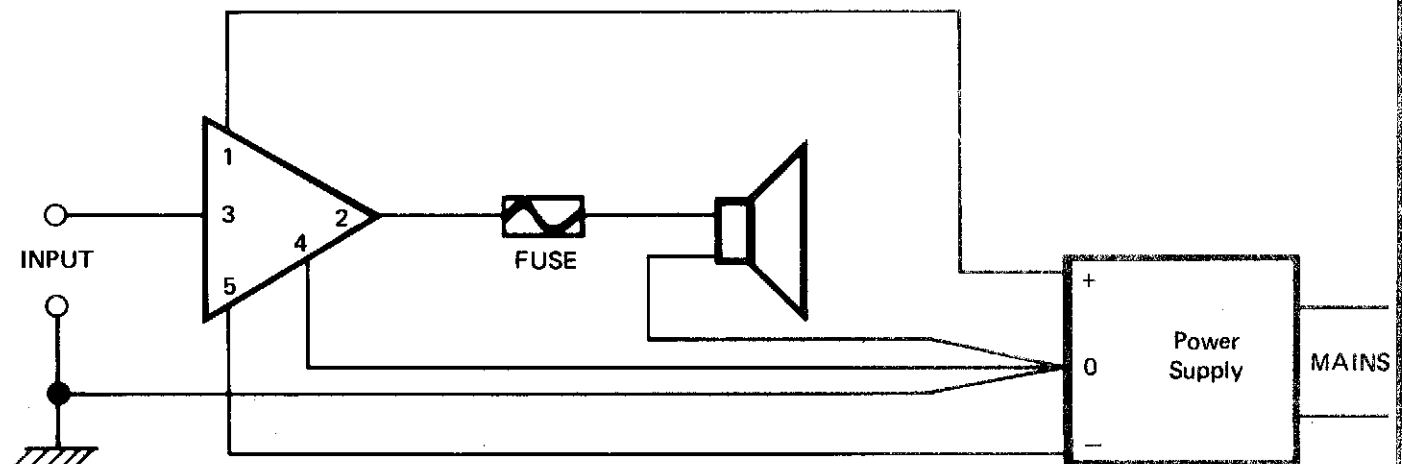
- PIN 1 – Positive Voltage
- PIN 2 – Output
- PIN 3 – Input
- PIN 4 – 0 Voltage
- PIN 5 – Negative Voltage

* Denotes 'T-slot' in heatsink extrusion for easy mounting nuts and bolts supplied:

Size M3 on HY30 and HY60
Size M4 on HY120, HY200 and HY400

I.L.P. Power Supplies: Suitable for use with Power Amplifiers

- PSU36 – for 1 or 2 HY30's
- PSU50 – with toroidal transformer for 1 or 2 HY60's
- PSU60 – with toroidal transformer for 1 HY120
- PSU70 – with toroidal transformer for 1 or 2 HY120's
- PSU90 – with toroidal transformer for 1 HY200
- PSU180 – with toroidal transformer for 1 HY400 or 2 HY200's



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