12 PT 400 LA MB

SWETON®

Introducing 12 PT 400 LA MB — a 12-inch precision-engineered mid-bass transducer optimized for **line array applications**. Designed with tight tolerance components and tested using Klippel Analyzer System, this driver ensures consistent and distortion-free performance over extended hours of operation.

12 PT 400 LA MB excels in providing tight punchy mid-bass, ensuring coverage consistency and tonal accuracy, especially in vertically stacked line array configurations. With low distortion, a well-balanced frequency curve from 60 Hz to 4.5 kHz, and a strong BL factor, this unit offers a high output with clean transients.

The motor design achieves excellent linearity across high excursions (8.8 mm), while the mechanical suspension ensures symmetrical compliance and minimal power compression. Its moderate Qts (0.41) and strong motor (Bl = 17.14 N/A) make it versatile for both vented and horn-loaded enclosures.

Recommended Enclosure

Type	Volume	Port Tuning (for vented)	Notes
Vented (Bass Reflex)	45–60 litres	55–60 Hz	For low-end reinforcement in array
Sealed	30–35 litres	–	For tighter response if required
Horn-Loaded	Based on horn path	–	Recommended for extended throw

Recommended HF Driver

Parameter	Recommendation
Power Rating	80–100W AES
Sensitivity	108–112 dB SPL
Diaphragm	Titanium or Polymer Composite (Low distortion)
Exit Size	1.4" Compression Driver

Recommended Crossover Points

Filter	Frequency Range	Slope Recommendation
HPF (Low Cut)	60–70 Hz	24 dB/oct (Butterworth or LR4)
LPF (for 12 PT 400 LA)	3.2 – 3.5 kHz	24 dB/oct
HPF (for HF driver)	1.5 – 1.6 kHz	24 dB/oct (avoid overlap using steep slope)

Note: The gap between LF LPF and HF HPF is acceptable in line arrays due to natural acoustic roll-off and off-axis behaviour.

Application

- Line array systems (indoor/outdoor concerts)
- Pro audio touring systems
- Auditoriums and large venues
- Installation systems requiring clarity at distance
- Hybrid vertical arrays with subwoofers

Why Choose 12 PT 400 LA MB

- ☑ Specially tuned for line array deployment
- ☑ Excellent mid-bass clarity with fast transient response
- ☑ High BL for tight control and dynamic projection
- ☑ Low thermal compression and stable excursion handling
- ☑ Designed and tested with Klippel Analyzer System
- ☑ Flat usable frequency range ensures natural vocal tonality

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SPECIFICATIONS & PARAMETERS

Specifications

Nominal Diameter	314 mm
Nominal Impedance	8 Ω
Nominal Power Handling (AES)	400 W
Program Power	800 W
Sensitivity (1W/1m)	97 dB
Frequency Range	60-4500 Hz
Magnet Material	Ferrite
Voice Coil Diameter	76.2 mm (3 in)
Winding Material	CCAW
Former Material	GLASS FIBRE
Winding Type	In/Out

Mounting Info

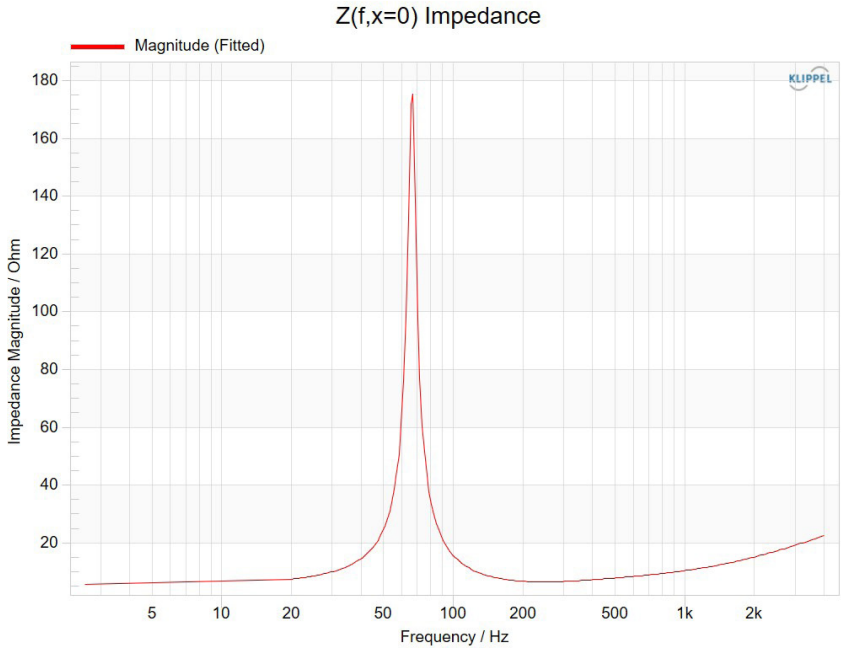
Overall Diameter	314 mm
Bolt Circle Diameter	296 mm
Baffle Cutout Diameter	282 mm
Depth	137 mm
Flange and Gasket Thickness	15 mm
Gross Weight	7.90 Kgs

Parameters

Resonant Frequency	Fs	66 Hz
DC Resistance	Re	5.5 Ω
Electrical Q	Qes	0.43
Mechanical Q	Qms	13.5
Total Q	Qts	0.41
Compliance Equivalent Volume	Vas	45.26 Ltrs
Peak Diaphragm Displacement Volume	Vd	0.17 Ltrs
Effective Surface Area of Cone	Sd	551.55 cm^2
Reference Efficiency	ηo	2.99%
Moving Mass including air load	Mms	54.3 gms
Motor Strength	Bl	17.14 T-m
Voice Coil Inductance	Le	0.44 mH
Efficiency Bandwith Product	EBP	153 Hz
Voice Coil Overhang	Xmax	±6.00 mm

Recone Kit

Recone Kit Number	REC12PT400LAMB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Magnitude (Fitted)
KLIPPEL
Impedance Magnitude / Ohm
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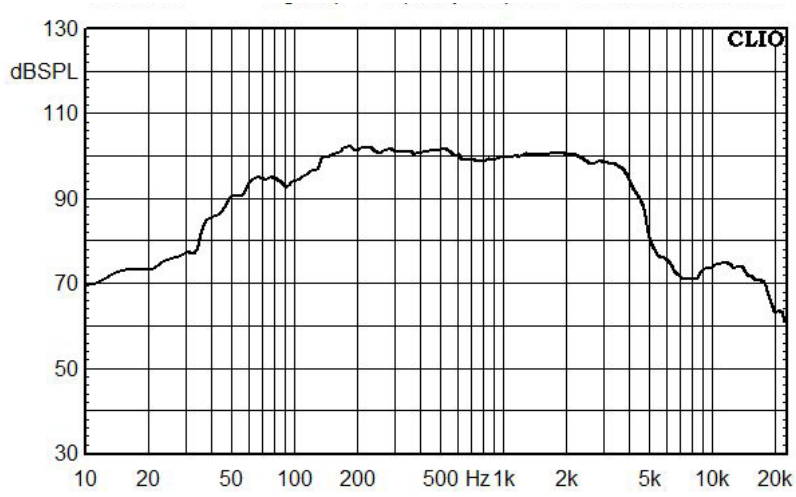
140
120
100
80
60
40
20
5
10
20
50
100
200
500
1k
2k
Frequency / Hz


CLIO
dBSPL
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110
90
70
50
30
10
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100
200
500 Hz
1k
2k
5k
10k
20k