

# 10 IT 400 MID

**SWETON®**



**10 IT 400 MID** is a high-performance 10-inch midrange driver meticulously engineered for precise vocal reproduction and clarity in high-output environments. With a power rating of 400W AES, it is designed for demanding professional sound reinforcement applications.

Leveraging Klippel-verified parameters and tested with CLIO 12.5, the 10 IT 400 MID delivers a flat and controlled response from 90 Hz to 5 kHz, making it ideal for vocal-range reproduction.

Built with a powerful motor system ( $Bl = 17.95$  N/A) and low inductance ( $Le = 0.33$  mH), it ensures tight control and minimal distortion across its operating range. The robust suspension and lightweight diaphragm make it perfect for fast transient response, clarity, and low intermodulation distortion, especially in multi-way enclosures.

## Recommended Enclosure Design

Enclosure Type	Volume	Port Size	Tuning Frequency
Vented Midrange Cabinet	18–22 litres	Port dia: 75 mm, Length: 110 mm	~85 Hz
Sealed Enclosure (for tighter vocals)	15–18 litres	N/A	N/A

## Crossover Recommendation

Filter Type	Frequency	Slope
HPF (for 10IT400)	90 Hz	24 dB/Oct
LPF (for 10IT400)	4.5–5 kHz	12–18 dB/Oct
HPF (for HF driver)	4.5–5 kHz	12–18 dB/Oct

## Recommended HF Driver Pairing

Parameter	Recommendation
Power Rating	80–100W AES
Sensitivity	105–110 dB SPL
Diaphragm Type	Titanium preferred
Exit Size	1" or 1.4" compression driver

## Applications

- Three-way PA systems
- Touring mid-high enclosures
- Procession/DJ speakers for outdoor events
- Auditorium installations
- Vocal wedges and side-fills

## Why Choose SWETON 10IT400MID?

- Flat midrange response from 90 Hz to 5 kHz — perfect for vocals
- High power handling (400W AES) with excellent thermal stability
- Low distortion and smooth transients for natural sound
- Compatible with standard compression drivers and enclosures
- Engineered with Klippel and tested using CLIO 12.5 for precision performance

## SPECIFICATIONS & PARAMETERS

### Specifications

Nominal Diameter	261 mm
Nominal Impedance	8 $\Omega$
Nominal Power Handling (AES)	400 W
Program Power	800 W
Sensitivity (1W/1m)	97 dB
Frequency Range	89-7000 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	261 mm
Bolt Circle Diameter	248 mm
Baffle Cutout Diameter	234 mm
Depth	110 mm
Flange and Gasket Thickness	14 mm
Gross Weight	7.76 Kgs

### Parameters

Resonant Frequency	Fs	89 Hz
DC Resistance	Re	7 $\Omega$
Electrical Q	Qes	0.41
Mechanical Q	Qms	14.4
Total Q	Qts	0.4
Compliance Equivalent Volume	Vas	19 Ltrs
Peak Diaphragm Displacement Volume	Vd	0.05 Ltrs
Effective Surface Area of Cone	Sd	363.1 cm <sup>2</sup>
Reference Efficiency	$\eta_0$	2.97%
Moving Mass including air load	Mms	34 gms
Motor Strength	Bl	17.95 T-m
Voice Coil Inductance	Le	0.33 mH
Efficiency Bandwidth Product	EBP	217 Hz
Voice Coil Overhang	Xmax	$\pm 1.50$ mm

### Recone Kit

Recone Kit Number	REC10IT400MID
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$Z(f, x=0)$  Impedance

