

4.0" Midrange

**PURE
SOUND**

Ultra Low Distortion
Midrange

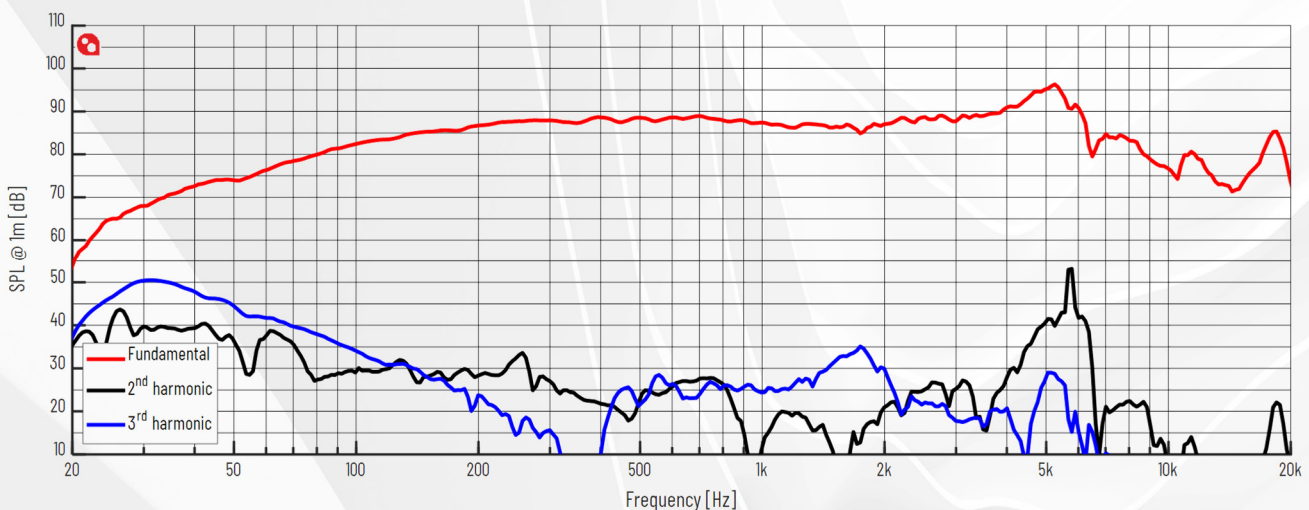


PTT4.0M04-NLC-02 DATA SHEET

KEY SPECIFICATIONS

- ⊙ Dedicated Midrange Driver with Enhanced Efficiency
- ⊙ Negligible Force Factor Modulation
- ⊙ Ultra Low Magnetic Hysteresis Distortion
- ⊙ Utilize PURIFI's Neutral Surround Technology
- ⊙ Designed and Manufactured in Denmark

Driver size	4"
DC resistance, R_{DC}	3.4 Ω
Resonance freq., f_s	50 Hz
Total Q factor, Q_{ts}	0.29
Effective piston area	57 cm ²
Equivalent volume, V_{as}	4.6 L
SPL@2.83V _{rms} /1m	87.1 dB
Linear X_{max}	+/- 2.9 mm
Mechanical X_{max}	+/- 13.7 mm
IEC Power handling	TBD
Cone material	PP Coated Proprietary Fibre Mix



1 Specifications

1.1 Electrical & Acoustical Parameter

Parameter		Typ	Unit
Z_n	Nominal impedance	4	Ω
Z_{min}	Minimum impedance above resonance	3.7	Ω
f_{min}	Frequency for minimum impedance	424	Hz
Z_o	Maximum impedance	61	Ω
R_{DC}	DC resistance	3.4	Ω
L_e	Voice Coil inductance @ 1kHz 0mm	0.26	mH
SPL	SPL@2.83V _{rms} /1m, 1000Hz-2800Hz, ref. 20 μ Pa (infinite baffle / 2pi)	87.1	dB
	SPL@1W(Z_{min})/1m, 1000Hz-2800Hz, ref. 20 μ Pa (infinite baffle / 2pi)	83.8	dB

Table 1 Electrical & Acoustical Parameters

1.2 T/S & Lumped Parameters

Parameter		Typ	Unit
f_s	Resonance frequency	50	Hz
Q_{ms}	Mechanical Q factor	5.2	-
Q_{es}	Electrical Q factor	0.31	-
Q_{ts}	Total Q factor	0.29	-
V_{as}	Equivalent volume	4.6	L
S_d	Effective piston area	56.7	cm ²
D	Effective piston diameter	8.5	cm
Bl	Force factor	5.9	N/A
R_{ms}	Mechanical resistance	0.61	kg/s
M_{ms}	Moving mass	10.1	g
C_{ms}	Suspension compliance	1.02	mm/N

Table 2 T/S & Lumped Parameters

1.3 Mechanical Properties

Parameter		Typ	Unit
Excursion Properties			
X_{max}	Linear excursion = (Voice Coil length - Airgap height) / 2	+/-2.9	mm
	Mechanical excursion	+/-13.7	mm
Physical Dimensions			
	Basket diameter	125	mm
	Cutout diameter	101	mm
	Mounting hole pattern diameter	115	mm
	Mounting hole diameter	4.2	mm
	Magnet diameter	90	mm
	Outer flange height	3.2	mm
	Build-in depth	73.5	mm
	Weight	1.25	kg
Voice Coil Properties			
	Voice Coil diameter	30	mm
	Voice Coil length	9.9	mm
	Voice Coil layers	4	-
	Airgap height	4	mm
	Winding material	CCAW	-

Table 3 Mechanical Properties

1.4 Power Handling

Parameter		Typ	Unit
	Long term maximum power (IEC268-5 18.2)	TBD	W
	Rated noise power, 100h (IEC268-5 18.4)	TBD	W

Table 4 Power Handling

1.5 Typical Performance, Graphs

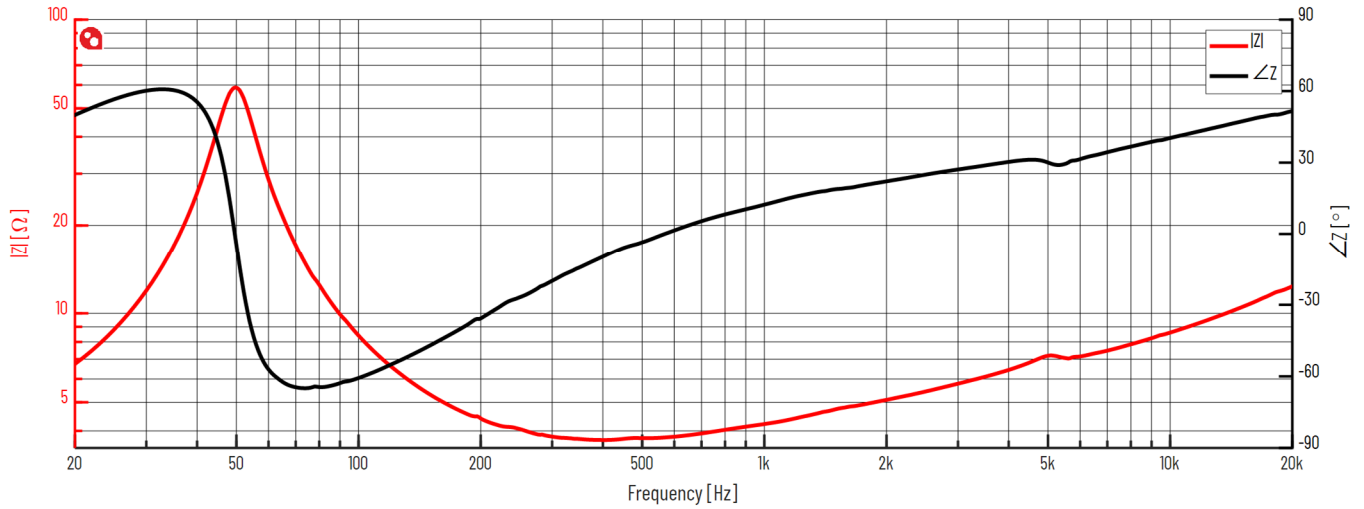


Figure 2 Impedance Response @ 2.83V

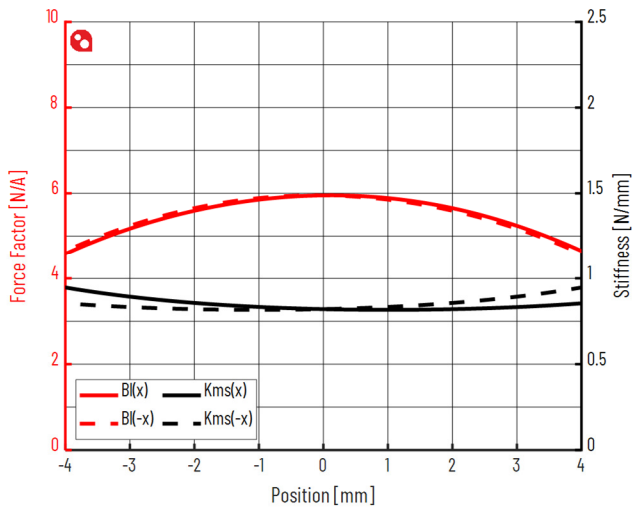


Figure 3 Force Factor and Stiffness vs Voice Coil Position

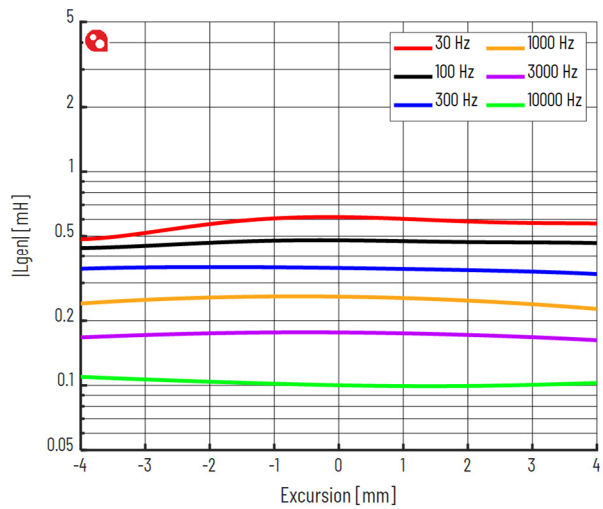


Figure 4 Inductance vs Voice Coil Position

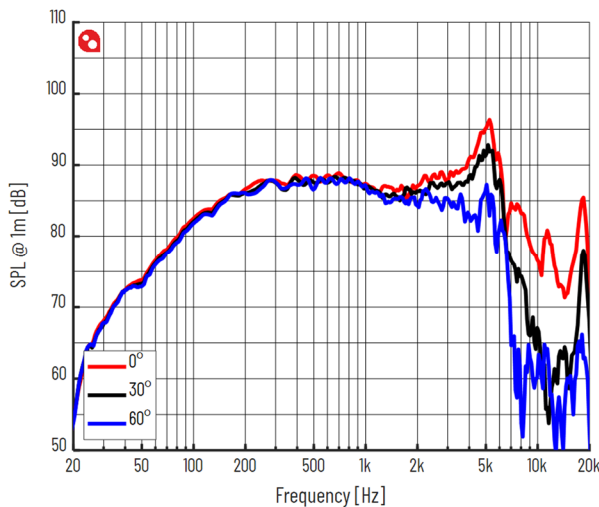


Figure 5 Axial Frequency Response @ 1m, 2.83Vrms

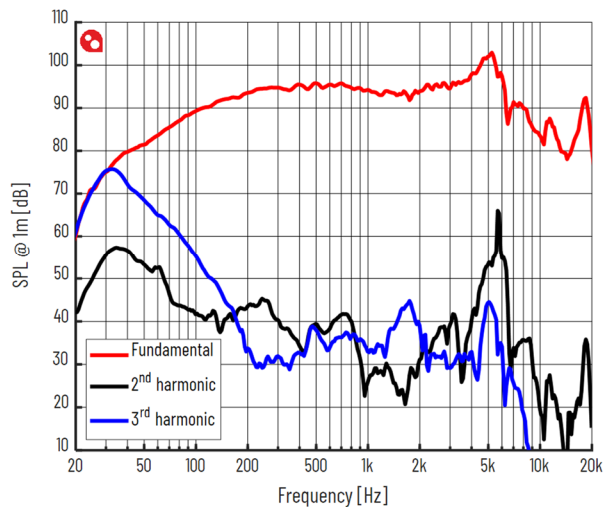


Figure 6 Frequency Response @ 1m, 94dB

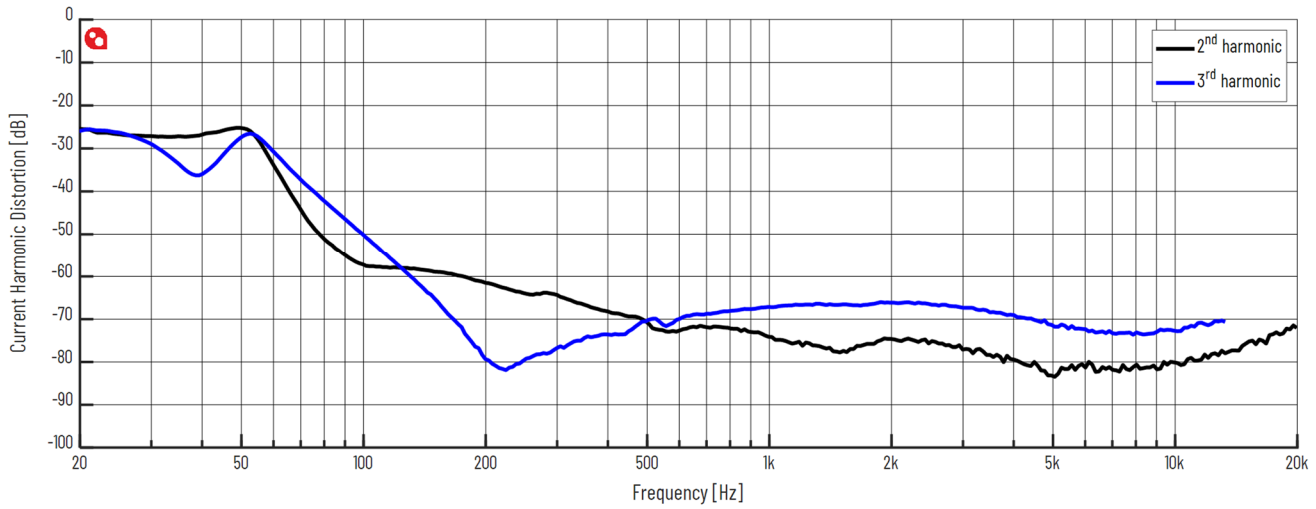


Figure 7 Current Harmonic Distortion @ 2.83Vrms

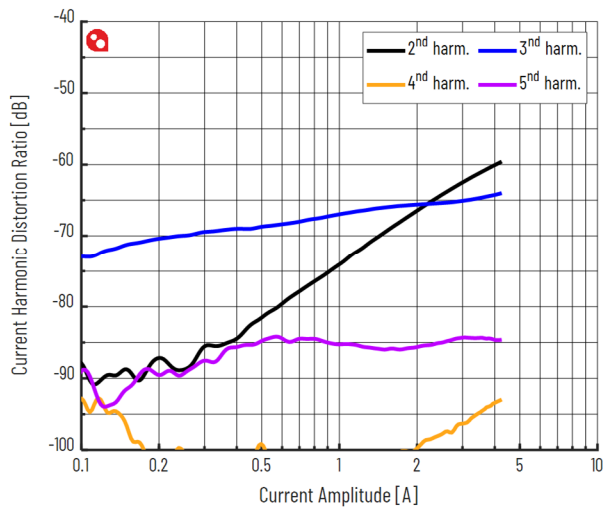


Figure 8 Current Harmonic Distortion @ 1kHz, 0-14.1Vrms

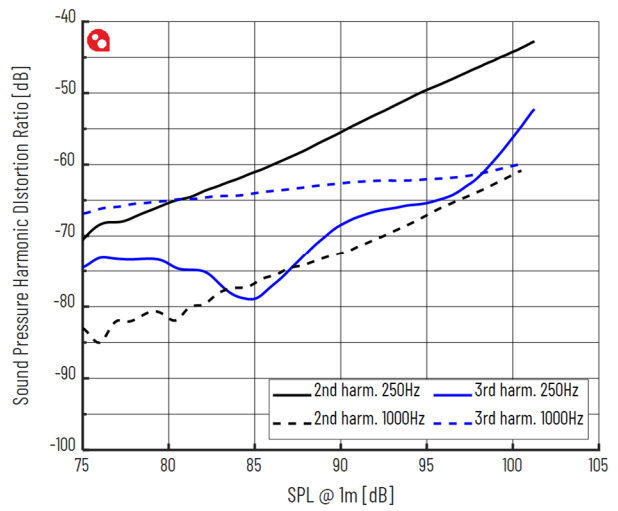


Figure 9 Sound Pressure Harmonic Distortion @ 1m, 0-14.1Vrms

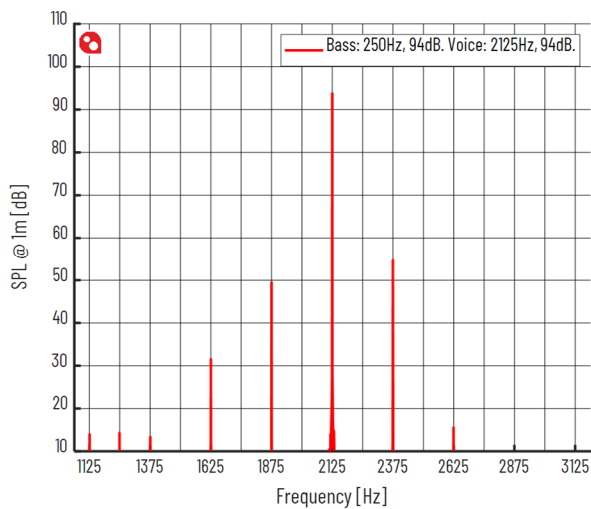


Figure 10 Intermodulation Distortion @ 250Hz 94dB, 2125Hz 94dB

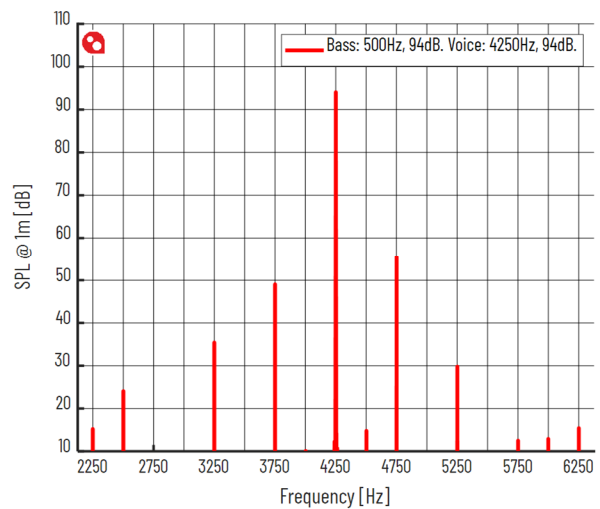
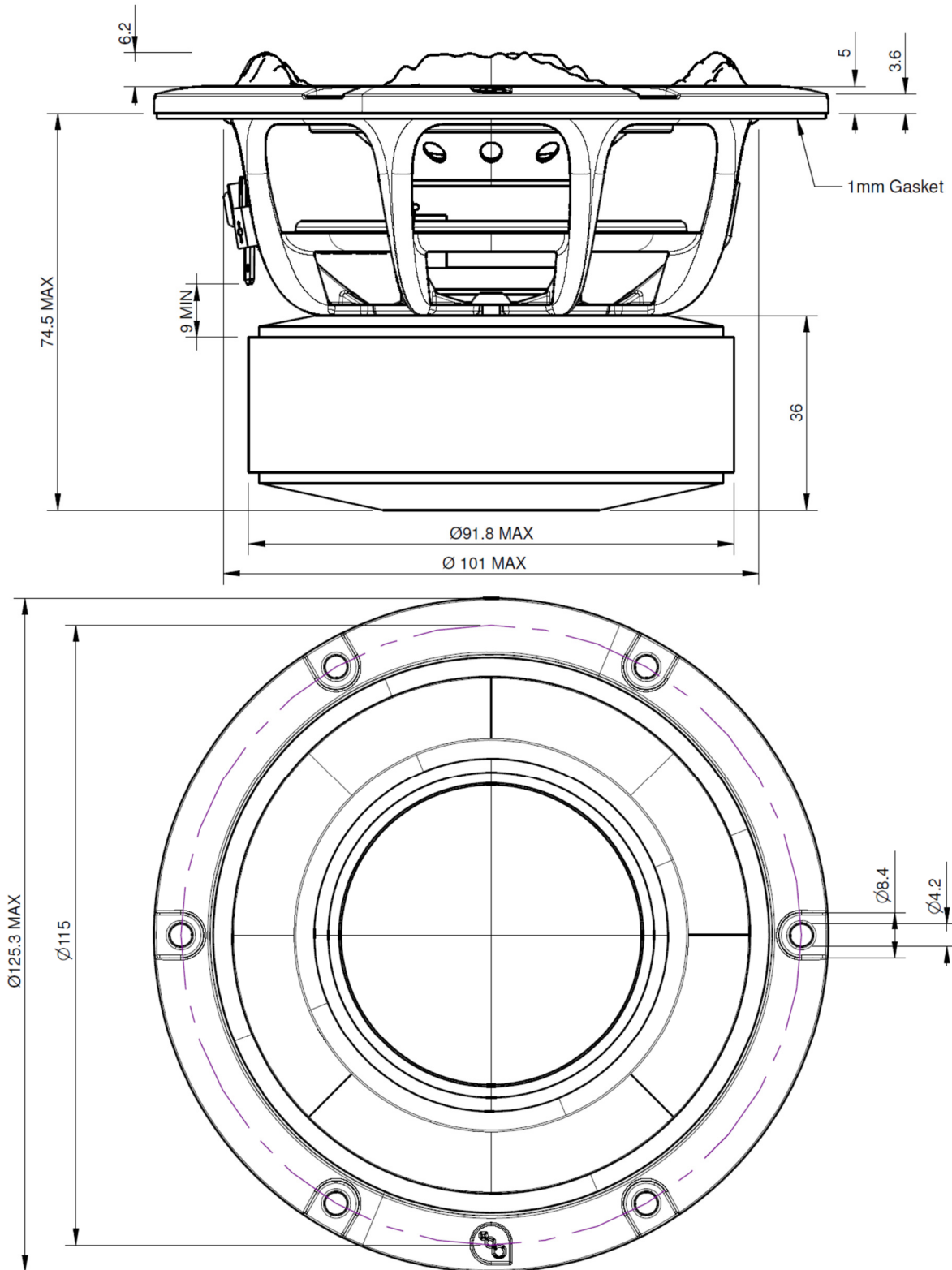


Figure 11 Intermodulation Distortion @ 500Hz 94dB, 4250Hz 94dB

2 Drawings



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