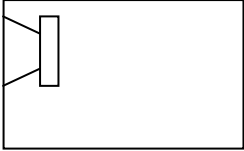
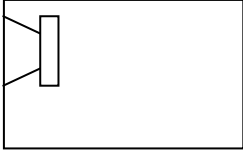
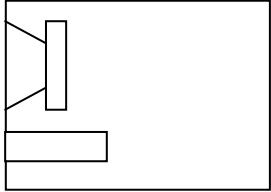
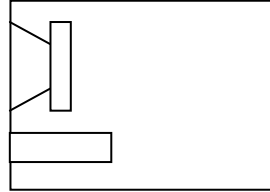
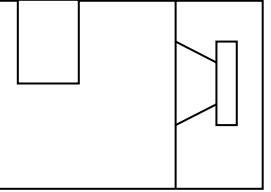
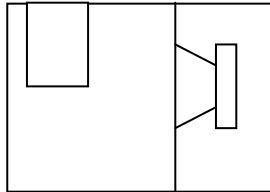


# Draft Proposal (Bauvorschläge) **AUDIO SYSTEM** Subwoofer

**V = Volume included Subwoofer and Tube (V = Innenvolumen incl. Subwoofer und Bassreflexrohr)**

BOX	HX 10 PHASE	HX 12 PHASE			
SEALED (Geschlossen)	 V = 22 l f = 70 Hz	 V = 32 l f = 55 Hz			
PORTED (Bassreflex)	 V = 29 l d = 9 cm l = 23 cm f = 45 Hz	 V = 48 l d = 10 cm l = 25 cm f = 38 Hz			
IISOBARIC 5th (Einfach-ventilierter Bandpass)	 V <sub>1</sub> = 15 l    V <sub>2</sub> = 15 l d = 9 cm l = 20 cm f = 58 Hz	 V <sub>1</sub> = 22 l    V <sub>2</sub> = 15 l d = 10 cm l = 25 cm f = 58 Hz			
IISOBARIC 7th (Doppel-ventilierter Bandpass)					
Original-Boxes	HX 10 PHASE G HX 08 BR	HX 10 SQ BR HX 10 SQ G			

## Thiele Small Parameter

### HX 10 PHASE

$R_{dc} = 2 \times 3,1 \Omega$   
 $Q_m = 5,87$   
 $Q_e = 0,41$   
 $Q_t = 0,38$   
 $f_s = 33 \text{ Hz}$   
 $V_{AS} = 27 \text{ L}$   
 $M_{ms} = 140 \text{ g}$   
 $C_{ms} = 160 \mu\text{m/N}$   
 $BL = 21 \text{ Tm}$   
 Nenn = 2x 200 Watt  
 Musik = 2x 300 Watt  
 X-max (+ -) = 12mm  
 Einbautiefe = 143mm  
 Einbau Ø = 237mm  
 Außen Ø = 261mm

### HX 12 PHASE

$R_{dc} = 2 \times 3,1 \Omega$   
 $Q_m = 5,19$   
 $Q_e = 0,42$   
 $Q_t = 0,39$   
 $f_s = 27 \text{ Hz}$   
 $V_{AS} = 60 \text{ L}$   
 $M_{ms} = 180 \text{ g}$   
 $C_{ms} = 185 \mu\text{m/N}$   
 $BL = 22 \text{ Tm}$   
 Nenn = 2x 250 Watt  
 Musik = 2x 375 Watt  
 X-max (+ -) = 14mm  
 Einbautiefe = 152mm  
 Einbau Ø = 283mm  
 Außen Ø = 313mm