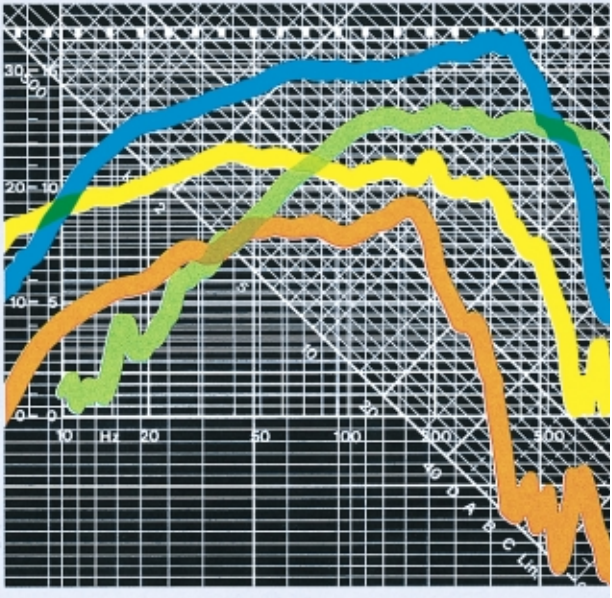
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LOUDSPEAKERS

Loudspeakers, as acoustic transducers, have several features conceived according to their specific final use.

For this reason, RCF loudspeakers are divided into two categories: LAB SERIES and PRO SERIES.

The loudspeakers in the LAB SERIE are characterized by exceptionally low distortion with an extremely linear response at low frequency.

The PRO SERIES stands out for its optimization of the relationship between the three main features: sound purity, distortion and the capacity to withstand high power over a long period.

In their turn, these two main categories respectively comprise the NEW LAB SERIES and the NEW PRO SERIES.

The power characteristics of these last two series have been determined according to a new and innovative method developed by the RCF Electroacoustic Laboratory and are furnished in the description of the loudspeakers. All the technical features of the models in the NEW LAB SERIES and in the NEW PRO SERIES are determined after the loudspeakers have been put through power handling tests.

An additional part in the abbreviations of each single model provides an immediate reference to the type of loudspeaker, for example:

– S 800 High power and high efficiency Woofer
– P 540 High power Woofer
– P 530 High efficiency Woofer
– P 520 High efficiency Mid-Bass
– P 300 High power Woofer

The L 12P540, L 15S800 and L 18S800 loudspeakers, equipped with twin spider treated with special resins, are able to withstand extremely high peak power levels with a crest factor of 10 dB instead of the usual 6 dB.

In the audio signals, the difference between the mean power level (RMS) and the peak levels normally reaches 20 dB.

This means, for example, that at RMS power of 20 W, the peak may reach 2000 W (crest factor of 20 dB).

Even with processed and compressed signals, the crest factor stays at 10 dB.

Amplifiers are therefore necessary with high dynamic features able to reproduce the acoustic signals correctly.

With a crest factor of 10 dB and a RMS power of 400 W, the peak is 4000 W.

These features represent a considerable step forward in reproducing low frequencies and are especially suited for applications requiring high power.

N.B.: The SMALL parameters have been measured after putting the loudspeakers through the power measurement test. This is to stabilize the parameters before measuring them.

NEW LAB SERIES

L 8 S 800: HIGH OUTPUT WOOFER
L 15 S 800 - L 18 S 800: HIGH POWER WOOFER

MODEL		L 8 S 800	L 15 S 800	L 18 S 800	
Code no.		111.20.007	111.60.019	111.85.013	
SPECIFICATIONS					
Nominal impedance		8	8	8	Ω
Long-term power		170	600	600	W
Program power		350	1500	1500	W
Peak power		1000	6000	6000	W
Frequency response		50 - 4000	42 - 2500	39 - 2000	Hz
Sensitivity (1W/1m)		93	99.5	99.5	dB
Maximum crossover frequency		2000	1000	250	Hz
THIELE-SMALL PARAMETERS					
Resonance frequency	Fs	60	48	39	Hz
Mechanical efficiency factor	Qms	4.1	11	8.3	
Total efficiency factor	Qts	0.41	0.30	0.41	
Moving mass	Mms	0.021	0.100	0.148	kg
Mechanical compliance	Cms	0.00031	0.00011	0.0001	m/N
Equivalent air volume	Vas	0.022	0.113	0.182	m^3
Voice coil resistance	Re	6.1	6.1	4.9	Ω
Inductance at 1 kHz	Le	0.74	1.2	1.08	mH
BL Factor		10.1	23.3	24.5	Tesla m
Reference efficiency	η_o	1.12	3.79	2.82	%
Peak linear displacement of diaphragm	Xmax	± 4.5	± 3.5	± 5.0	mm
CONSTRUCTION FEATURES AND FITTING DATA					
Voice coil diameter		38	100	100	mm
Voice coil material		Copper	Copper	Copper	
Diaphragm material		Carbon fiber	Paper	Paper	
Surround material		Cloth	Cloth	Cloth	
Overall diameter		239	387	470	mm
Overall depth		94	162	209	mm
Net weight		3.1	12	13.2	kg
Flange thickness		10	16	16	mm
Baffle cut-out diameter		183	352	416	mm
Bolt circle diameter		221	371	438	mm
No. of mounting holes		4	8	8	
Mounting hole diameter		6.4	6.5	8	mm
ACOUSTIC CABINET SPECIFICATIONS (Vented Box)					
Enclosure volume		23	80	190	litres
Tuning frequency		57	55	39	Hz
Vent diameter		100	190	190	mm
Duct depth		240	215	155	mm

NEW LAB SERIES

L 8 L 750 - L 12 L 750: HIGH EFFICIENCY MIDRANGE

MODEL		**L 8 L 750**	**L 12L 750**	
Code no.		111.24.001	111.40.037	
SPECIFICATIONS				
Nominal impedance		16	8	Ω
Long-term power		130	350	W
Program power		250	700	W
Peak power		500	1500	W
Frequency response		150 - 4000	60 - 2000	Hz
Sensitivity (1W/1m)		101.5	101	dB
Maximum crossover frequency		4000	2000	Hz
THIELE-SMALL PARAMETERS				
Resonance frequency	Fs	125	62	Hz
Mechanical efficiency factor	Qms	4	4.1	
Total efficiency factor	Qts	0.48	0,27	
Moving mass	Mms	0.0167	0.05	kg
Mechanical compliance	Cms	0.0001	0.00013	m/N
Equivalent air volume	Vas	0.007	0.051	m^3
Voice coil resistance	Re	9.3	5.2	Ω
Inductance at 1 kHz	Le	0.88	0.72	mH
BL Factor		14.8	18.9	Tesla m
Reference efficiency	η_o	2.5	4.24	%
Peak linear displacement of diaphragm	Xmax	± 1	± 1.5	mm
CONSTRUCTION FEATURES AND FITTING DATA				
Voice coil diameter		51	100	mm
Voice coil material		Copper	Aluminium	
Diaphragm material		Paper	Paper	
Surround material		Cloth	Cloth	
Overall diameter		239	320	mm
Overall depth		94	146	mm
Net weight		4.1	11.5	kg
Flange thickness		10	13	mm
Baffle cut-out diameter		184	286	mm
Bolt circle diameter		221	300	mm
No. of mounting holes		4	8	
Mounting hole diameter		6.4	7	mm
ACOUSTIC CABINET SPECIFICATIONS (Vented Box)				
Enclosure volume		3	6	litres
Tuning frequency		180	130	Hz
Vent diameter		48	100	mm
Duct depth		20.5	160	mm

NEW LAB SERIES

L 10/568H - L 12/568H: LOW DISTORTION EXTENDED RANGE WOOFER
L 10P510: MID BASS

MODEL		L 10/568H	L 12/568H	L 10P510	
Code no.		111.30.023	111.40.036	111.35.009	
SPECIFICATIONS					
Nominal impedance		8	8	8	Ω
Long-term power		200	200	200	W
Program power		400	400	400	W
Peak power		800	800	800	W
Frequency response		70 - 3000	58 - 5000	70 - 3500	Hz
Sensitivity (1W/1m)		97.5	99.5	101	dB
Maximum crossover frequency		2000	1700	2500	Hz
THIELE-SMALL PARAMETERS					
Resonance frequency	Fs	70	58	70	Hz
Mechanical efficiency factor	Qms	6	5.8	5.6	
Total efficiency factor	Qts	0.38	0.40	0.25	
Moving mass	Mms	0.030	0.040	0.26	kg
Mechanical compliance	Cms	0.00017	0.00018	0.00019	m/N
Equivalent air volume	Vas	0.0288	0.072	0.032	m^3
Voice coil resistance	Re	5.1	6.2	5	Ω
Inductance at 1 kHz	Le	0.48	1.49	0.46	mH
BL Factor		12.6	14.4	15	Tesla m
Reference efficiency	η_o	2.4	3.13	4.08	%
Peak linear displacement of diaphragm	Xmax	± 3.0	± 4.0	± 1.5	mm
CONSTRUCTION FEATURES AND FITTING DATA					
Voice coil diameter		51	51	76	mm
Voice coil material		Copper	Copper	Aluminium	
Diaphragm material		Paper	Paper	Paper	
Surround material		Cloth	Cloth	Cloth	
Overall diameter		260	320	260	mm
Overall depth		115	134	124	mm
Net weight		4.4	5.1	7.7	kg
Flange thickness		9.5	13	9.5	mm
Baffle cut-out diameter		230	285	230	mm
Bolt circle diameter		244.5	300	244.5	mm
No. of mounting holes		8	8	8	
Mounting hole diameter		5.5	7	5.5	mm
ACOUSTIC CABINET SPECIFICATIONS (Vented Box)					
Enclosure volume		23	72	8	litres
Tuning frequency		75	56	100	Hz
Vent diameter		130	190	100	mm
Duct depth		200	231	220	mm

NEW PRO SERIES

L 12 P 520 - L 15 P 520: MID BASS - HIGH OUTPUT

MODEL		L 12 P 520	L 15 P 520	
Code no.		111.45.022	111.65.016	
SPECIFICATIONS				
Nominal impedance		8	8	Ω
Long-term power		250	250	W
Program power		500	500	W
Peak power		1000	1000	W
Frequency response		60 - 2500	50 - 2000	Hz
Sensitivity (1W/1m)		101	102	dB
Maximum crossover frequency		2000	1500	Hz
THIELE-SMALL PARAMETERS				
Resonance frequency	Fs	65	56	Hz
Mechanical efficiency factor	Qms	8.6	9.9	
Total efficiency factor	Qts	0.35	0.47	
Moving mass	Mms	0.048	0.07	kg
Mechanical compliance	Cms	0.00012	0.00011	m/N
Equivalent air volume	Vas	0.047	0.0115	m^3
Voice coil resistance	Re	5.0	5.0	Ω
Inductance at 1 kHz	Le	0.60	0.60	mH
BL Factor		16.2	16.0	Tesla m
Reference efficiency	η_o	3.57	4.80	%
Peak linear displacement of diaphragm	Xmax	± 4.0	± 4.0	mm
CONSTRUCTION FEATURES AND FITTING DATA				
Voice coil diameter		76	76	mm
Voice coil material		Aluminium	Aluminium	
Diaphragm material		Kevlar Paper pulp	Kevlar Paper pulp	
Surround material		Cloth	Cloth	
Overall diameter		320	387	mm
Overall depth		155	163	mm
Net weight		8.5	9.5	kg
Flange thickness		13	16	mm
Baffle cut-out diameter		286	352	mm
Bolt circle diameter		300	371	mm
No. of mounting holes		8	8	
Mounting hole diameter		7	6.5	mm
ACOUSTIC CABINET SPECIFICATIONS (Vented Box)				
Enclosure volume		50	100	litres
Tuning frequency		65	52	Hz
Vent diameter		150	160	mm
Duct depth		142	107	mm

NEW PRO SERIES

L 12 P 530 - L 15 P 530: HIGH OUTPUT WOOFER

MODEL		L 12 P 530	L 15 P 530	
Code no.		111.45.024	111.65.017	
SPECIFICATIONS				
Nominal impedance		8	8	Ω
Long-term power		300	300	W
Program power		600	600	W
Peak power		1200	1200	W
Frequency response		50 - 2000	40 - 2000	Hz
Sensitivity (1W/1m)		98.5	100	dB
Maximum crossover frequency		1500	1000	Hz
THIELE-SMALL PARAMETERS				
Resonance frequency	Fs	52	45	Hz
Mechanical efficiency factor	Qms	5.8	7.5	
Total efficiency factor	Qts	0.34	0.48	
Moving mass	Mms	0.056	0.083	kg
Mechanical compliance	Cms	0.00017	0.00013	m/N
Equivalent air volume	Vas	0.066	0.136	m^3
Voice coil resistance	Re	5.1	5.1	Ω
Inductance at 1 kHz	Le	0.86	0.86	mH
BL Factor		16.1	16.0	Tesla m
Reference efficiency	η_o	2.51	2.80	%
Peak linear displacement of diaphragm	Xmax	± 4.5	± 4.5	mm
CONSTRUCTION FEATURES AND FITTING DATA				
Voice coil diameter		76	76	mm
Voice coil material		Aluminium	Aluminium	
Diaphragm material		Kevlar Paper pulp	Kevlar Paper pulp	
Surround material		Cloth	Cloth	
Overall diameter		320	387	mm
Overall depth		155	163	mm
Net weight		8.5	9.5	kg
Flange thickness		13	16	mm
Baffle cut-out diameter		286	352	mm
Bolt circle diameter		300	371	mm
No. of mounting holes		8	8	
Mounting hole diameter		7	6.5	mm
ACOUSTIC CABINET SPECIFICATIONS (Vented Box)				
Enclosure volume		50	150	litres
Tuning frequency		60	40	Hz
Vent diameter		150	160	mm
Duct depth		179	135	mm

NEW PRO SERIES

L 12 P 540 - L 15 P 540 - L 18 P 540: HIGH POWER WOOFER

MODEL		L 12 P 540	L 15 P 540	L 18 P 540	
Code no.		111.45.017	111.65.015	111.85.014	
SPECIFICATIONS					
Nominal impedance		8	8	8	Ω
Long-term power		400	400	350	W
Program power		800	800	700	W
Peak power		4000	4000	1500	W
Frequency response		50 - 2000	50 - 2000	30 - 2000	Hz
Sensitivity (1W/1m)		97	98	99.5	dB
Maximum crossover frequency		1500	1000	250	Hz
THIELE-SMALL PARAMETERS					
Resonance frequency	Fs	59	50	34	Hz
Mechanical efficiency factor	Qms	11.0	9.7	8	
Total efficiency factor	Qts	0.35	0,39	0.34	
Moving mass	Mms	0.066	0.106	0.140	kg
Mechanical compliance	Cms	0.00013	0.00009	0.00013	m/N
Equivalent air volume	Vas	0.050	0.095	0.228	m^3
Voice coil resistance	Re	5.6	5.6	5.5	Ω
Inductance at 1 kHz	Le	1.3	1.3	1.23	mH
BL Factor		19.0	21	22.7	Tesla m
Reference efficiency	η_o	2.10	2.93	3.34	%
Peak linear displacement of diaphragm	Xmax	± 4.5	± 4.5	± 4.5	mm
CONSTRUCTION FEATURES AND FITTING DATA					
Voice coil diameter		76	76	76	mm
Voice coil material		Copper	Copper	Copper	
Diaphragm material		Paper	Paper	Kevlar Paper pulp	
Surround material		Cloth	Cloth	Cloth	
Overall diameter		320	387	470	mm
Overall depth		155	163	193	mm
Net weight		8.5	9.5	10.8	kg
Flange thickness		13	16	16	mm
Baffle cut-out diameter		286	352	416	mm
Bolt circle diameter		300	371	438	mm
No. of mounting holes		8	8	8	
Mounting hole diameter		7	6.5	8	mm
ACOUSTIC CABINET SPECIFICATIONS (Vented Box)					
Enclosure volume		50	90	150	litres
Tuning frequency		60	50	40	Hz
Vent diameter		150	150	160	mm
Duct depth		186	127	130	mm

NEW PRO SERIES

L 12 P 300: EXTENDED LOW FREQUENCY WOOFER
L 18 P 300: HIGH POWER WOOFER

MODEL		L 12 P 300	L 18 P 300	
Code no.		111.45.023	111.85.016	
SPECIFICATIONS				
Nominal impedance		8	8	Ω
Long-term power		300	650	W
Program power		600	1600	W
Peak power		1200	6000	W
Frequency response		35 - 1500	30 - 1000	Hz
Sensitivity (1W/1m)		96	97	dB
Maximum crossover frequency		1000	150	Hz
THIELE-SMALL PARAMETERS				
Resonance frequency	Fs	40	33	Hz
Mechanical efficiency factor	Qms	7.3	8.3	
Total efficiency factor	Qts	0.24	0.35	
Moving mass	Mms	0.076	0.180	kg
Mechanical compliance	Cms	0.00019	0.00013	m/N
Equivalent air volume	Vas	0.076	0.0226	m^3
Voice coil resistance	Re	5.9	5.2	Ω
Inductance at 1 kHz	Le	1.3	1.90	mH
BL Factor		21	23.3	Tesla m
Reference efficiency	η_o	2.15	2.23	%
Peak linear displacement of diaphragm	Xmax	± 5	± 12	mm
CONSTRUCTION FEATURES AND FITTING DATA				
Voice coil diameter		76	100	mm
Voice coil material		Copper	Copper	
Diaphragm material		Kevlar Paper pulp	Paper pulp	
Surround material		Rubber	Cloth	
Overall diameter		320	470	mm
Overall depth		155	204	mm
Net weight		8.5	14	kg
Flange thickness		13	16	mm
Baffle cut-out diameter		286	416	mm
Bolt circle diameter		300	438	mm
No. of mounting holes		8	8	
Mounting hole diameter		7	8	mm
ACOUSTIC CABINET SPECIFICATIONS (Vented Box)				
Enclosure volume		50	200	litres
Tuning frequency		50	33	Hz
Vent diameter		125	200	mm
Duct depth		204	280	mm

NEW LAB SERIES

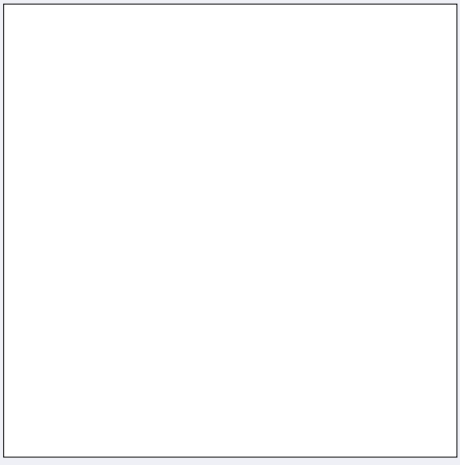
L 15S830: HIGH OUTPUT POWER

MODEL		**L 15S830**	
Code no.		111.61.034	
SPECIFICATIONS			
Nominal impedance		8	Ω
Long-term power		400	W
Program power		800	W
Peak power		1600	W
Frequency response		50 - 2500	Hz
Sensitivity (1W/1m)		98.5	dB
Maximum recommended frequency		800	Hz
THIELE-SMALL PARAMETERS			
Resonance frequency	Fs	52	Hz
Mechanical efficiency factor	Qms	4	
Electrical efficiency factor	Qes	0.3	
Total efficiency factor	Qts	0.28	
Moving mass	Mms	0.082	kg
Mechanical compliance	Cms	0.0001	m/N
Effective diaphragm diameter	D	0.330	m
Effective diaphragm area	Sd	0.085	m^2
Equivalent air volume	Vas	0.115	m^3
Voice coil resistance	Re	5.6	Ω
Inductance at 1 kHz	Le	1.1	mH
BL Factor		22.2	Tesla m
Reference efficiency	η_o	5.1	%
Peak linear displacement of diaphragm	Xmax	± 4	mm
CONSTRUCTION FEATURES AND FITTING DATA			
Voice coil diameter		100	mm
Voice coil Flat wire aluminium on fibre glass former			
Diaphragm material Paper on Clot surround			
Flux density		1.8	Tesla
Overall diameter		387	mm
Overall depth		152	mm
Net weight		12	kg
Baffle cut-out diameter		352	mm
Bolt circle diameter		371	mm
ACOUSTIC CABINET SPECIFICATIONS (Vented Box)			
Enclosure volume		65	litres
Tuning frequency		55	Hz
Vent diameter		12.5	mm
Duct depth		7.5	mm

NEW LAB SERIES

L 8CX200: FULL RANGE
L 12CX200: FULL RANGE

MODEL		L 8CX200	L 12CX200	
Code no.		111.21.007	111.41.017	
SPECIFICATIONS				
WOOFER CHARACTERISTICS				
Resonance frequency	Fs	85	50	Hz
Mechanical Q-factor	Qms	2.97	4.32	
Total Q-factor	Qts	0.41	0.34	
Mobile mass	Mms	14.05	31.4	g
Equivalent air volume	Vas	15	140	l
Actual diaphragm diameter	D	170	260	mm
Voice coil resistance	Re	4.6	4.7	Ω
BL factor		8.8	10.8	
Continuous power		150	150	W
Voice coil diameter		51	51	mm
Voice coil Aluminium flat wire on fibre glass				
Cone material		Paper	Paper	
Hinge material		Cloth	Cloth	
TWEETER CHARACTERISTICS				
Continuous power		15	15	W
Voice coil diameter		25	25	mm
Voice coil Aluminium on Nomex		Aluminium	Aluminium	
Diaphragm material		Mylar	Mylar	
SYSTEM CHARACTERISTICS				
Frequency response		80 - 18,000	60 - 18,000	Hz
Continuous power		170	170	W
Musical program power		350	350	W
Peak power		700	700	W
Sensitivity (1W/1m)		95	97	dB
Nominal impedance		8	8	Ω
Crossover frequency		3,500	3,500	Hz
Overall depth		149	182	mm
Net weight		5.1	6.4	kg
Overall diameter		239	320	mm
Flange attachment hole diameter		184	285	mm
Distance between attachment holes		221	300	mm
Number of attachment holes		4	8	
Attachment hole diameter		6,4	7	mm



MEASUREMENT METHODS

CONE SPEAKERS

The musical programme power is determined by applying noise filtered according to the IEC 2684 weighting curve.

The test involves continuous operation of at least 100 hours.

The power value expressed according to the AES standard is determined by applying pink noise at 12 dB/oct for at least two hours with band width of one decade.

The minimum operating frequency is that specified by the manufacturer.

The ratio between the peak and the average noise values should not exceed 6 dB.

Sensitivity is measured at 1 metre on axis in an anechoic chamber by applying pink noise at 1 W nominal power, with the speaker in a standard cabinet (53 litres for a 10" speaker, 80 litres for a 12" speaker, 125 litres for a 15" speaker, and 180 litres for an 18" speaker).

The frequency response curve is measured in an anechoic chamber by applying a 2.38 V sine wave signal (equivalent to 1 W on 8 ohms), with the speaker in a standard cabinet.

DRIVERS

The sames methods as those used for cone speakers are applied for measuring the power handling and musical programme power ratings of the drivers.

Sensitivity and frequency response in 1/3 octave are measured at 1 metre on axis in an anechoic chamber, with 1 W input of pink noise applied.

HORN SPEAKERS

The polar response are measured at 1 metre in an anechoic chamber.

TWEETERS

The same methods as those used for cone speakers are applied for measuring the continuous pwer handling and musical programme power ratings of the tweeters.

Sensitivity and frequency response in 1/3 octaves are measured at 1 metre on axis in an anechoic chamber, with 1 W input of pink noise applied.

LAB SERIES

L 6 L 380: MID FREQUENCY
L 10/750YK: MID BASS

MODEL			L 6 L 380	L 10/750YK
Code no.			111.55.001 (8Ω)	111.30.015
SPECIFICATIONS				
Nominal diameter		mm	165	250
Nominal impedance		Ω	8	8
Frequency response		Hz	200-8000	70-5000
Power handling 100 hour IEC noise		W	120	300
Power handling AES standard		W	150	400
Sensitivity (1W/1m)		dB	97	100
ADDITIONAL DESCRIPTIVE DATA				
Voice coil diameter		mm	38	75
Voice coil material			Copper flat wire	Copper
Voice coil former			Kapton	Kapton
Flux density		Tesla	1.75	1.45
Basket			Cast AL	Cast AL
PHYSICAL CONSTANTS				
Effective diaphragm diameter	D	m	0.127	0.21
Moving mass	Mms	kg	0.01	0.036
Mechanical compliance	Cms	m/N	0.15-10^{3}	
BL Factor		Tesla m	10.5	17.3
SMALL PARAMETERS				
Resonance frequency	Fs	Hz	130	68
Total efficiency factor	Qts		0.37	0.24
Mechanical efficiency factor	Qms		3	4.2
Electrical efficiency factor	Qes		0.41	0.26
Equivalent air volume	Vas	m^3	0.0033	0.025
Reference efficiency	η_0	%	1.71	3
Voice coil resistance	Re	Ω	5.5	5.1
Effective diaphragm area	Sd	m2	0.0127	0.034
Peak linear displacement of diaphragm	Xmax	mm	± 1	± 1
DIMENSIONS AND WEIGHT				
Net weight		kg	3	7.7
Overall diameter		mm	190	260
Overall depth		mm	85	120
Baffle cut-out diameter		mm	155	230
No. of mounting holes			4	8
Mounting hole diameter		mm	5	5.5
Bolt circle diameter		mm	172	244.5

LAB SERIES

L 12 P 11WK - L 12 P 110K: MID BASS

MODEL			L 12 P 11WK	L 12 P 110K
Code no.			111.45.021	111.46.001
SPECIFICATIONS				
Nominal diameter		mm	300	300
Nominal impedance		Ω	8	8
Frequency response		Hz	50-3000	45-3000
Power handling 100 hour IEC noise		W	350	400
Power handling AES standard		W	450	500
Sensitivity (1W/1m)		dB	101	101
ADDITIONAL DESCRIPTIVE DATA				
Voice coil diameter		mm	100	100
Voice coil material			Copper	Copper
Voice coil former			Kapton	Kapton
Flux density		Tesla	1.35	1.35
Basket			Cast AL	Cast AL
PHYSICAL CONSTANTS				
Effective diaphragm diameter	D	m	0.26	0.253
Moving mass	Mms	kg	0.049	0.055
Mechanical compliance	Cms	m/N	0.00021	0.00024
BL Factor		Tesla m	22.4	25.6
SMALL PARAMETERS				
Resonance frequency	Fs	Hz	50	45
Total efficiency factor	Qts		0.22	0.13
Mechanical efficiency factor	Qms		8.3	4
Electrical efficiency factor	Qes		0.22	0.14
Equivalent air volume	Vas	m^3	0.08	0.097
Reference efficiency	η_0	%	4.43	5.6
Voice coil resistance	Re	Ω	7.2	5.7
Effective diaphragm area	Sd	m2	0.053	0.53
Peak linear displacement of diaphragm	Xmax	mm	± 0.5	± 1.5
DIMENSIONS AND WEIGHT				
Net weight		kg	11	11.2
Overall diameter		mm	312	312
Overall depth		mm	110	115
Baffle cut-out diameter		mm	285	285
No. of mounting holes			8	8
Mounting hole diameter		mm	7	7
Bolt circle diameter		mm	295	295

LAB SERIES

L 15 P 200AK: EXTENDED LOW FREQUENCY WOOFER
L 15 L 601: LOW FREQUENCY WOOFER
L 15/554K: LOW FREQUENCY - HIGH OUTPUT WOOFER

MODEL			L 15 P 200AK	L 15 L 601	L 15/554K
Code no.			111.65.014 (8Ω) 111.87.014 (4Ω)	111.60.020 (8Ω)	111.60.011 (8Ω)
SPECIFICATIONS					
Nominal diameter		mm	380	380	380
Nominal impedance		Ω	8	4	8
Frequency response		Hz	35-2000	29-3000	35-2500
Power handling 100 hour IEC noise		W	700	600	500
Power handling AES standard		W	800	700	600
Sensitivity (1W/1m)		dB	95	97.5	99
ADDITIONAL DESCRIPTIVE DATA					
Voice coil diameter		mm	100	100	100
Voice coil material			Copper	Copper	Copper
Voice coil former			Kapton	Kapton	Kapton
Flux density		Tesla	0.97	1.1	1.1
Basket			Cast AL	Cast AL	Cast AL
PHYSICAL CONSTANTS					
Effective diaphragm diameter	D	m	0.325	0.32	0.33
Moving mass	Mms	kg	0.121	0.092	0.091
Mechanical compliance	Cms	m/N	0.00024	0.0002	0.00022
BL Factor		Tesla m	21.3	21.7	23
SMALL PARAMETERS					
Resonance frequency	Fs	Hz	38	38	35
Total efficiency factor	Qts		0.35	0.31	0.24
Mechanical efficiency factor	Qms		6.8	6.6	8.6
Electrical efficiency factor	Qes		0.37	0.32	0.24
Equivalent air volume	Vas	m^3	0.139	0.190	0.227
Reference efficiency	η_0	%	1.97	3.2	3.9
Voice coil resistance	Re	Ω	5.9	6.8	6.6
Effective diaphragm area	Sd	m2	0.082	0.0804	0.085
Peak linear displacement of diaphragm	Xmax	mm	± 8.5	± 5	± 4
DIMENSIONS AND WEIGHT					
Net weight		kg	11.7	11.6	11.3
Overall diameter		mm	387	387	387
Overall depth		mm	137	137	138
Baffle cut-out diameter		mm	356	356	356
No. of mounting holes			8	8	8
Mounting hole diameter		mm	7	7	7
Bolt circle diameter		mm	371	371	371

LAB SERIES

L 18/851KN: LOW FREQUENCY - HIGH POWER WOOFER
L 18 P 200N: EXTENDED LOW FREQUENCY WOOFER

MODEL			L 18/851KN	L 18 P 200N
Code no.			111.85.011 (8Ω) 111.87.009 (4Ω)	111.85.012 (8Ω) 111.87.010 (4Ω)
SPECIFICATIONS				
Nominal diameter		mm	450	460
Nominal impedance		Ω	8	8
Frequency response		Hz	39-3000	27-1500
Power handling 100 hour IEC noise		W	1000	700
Power handling AES standard		W	1000	800
Sensitivity (1W/1m)		dB	99	95
ADDITIONAL DESCRIPTIVE DATA				
Voice coil diameter		mm	100	100
Voice coil material			Copper	Copper
Voice coil former			Kapton	Kapton
Flux density		Tesla	1.15	1.2
Basket			Cast AL	Cast AL
PHYSICAL CONSTANTS				
Effective diaphragm diameter	D	m	0.364	0.376
Moving mass	Mms	kg	0.128	0.155
Mechanical compliance	Cms	m/N	0.00013	0.00020
BL Factor		Tesla m	21.7	23
SMALL PARAMETERS				
Resonance frequency	Fs	Hz	39	2.8
Total efficiency factor	Qts		0.36	0.31
Mechanical efficiency factor	Qms		6	7.15
Electrical efficiency factor	Qes		0.38	0.32
Equivalent air volume	Vas	m^3	0.2	0.363
Reference efficiency	η_o	%	3.03	2.47
Voice coil resistance	Re	Ω	5.7	6.3
Effective diaphragm area	Sd	m2	0.1047	0.11
Peak linear displacement of diaphragm	Xmax	mm	± 4.5	± 8
DIMENSIONS AND WEIGHT				
Net weight		kg	13	13.1
Overall diameter		mm	470	470
Overall depth		mm	183	180
Baffle cut-out diameter		mm	422	422
No. of mounting holes			8	8
Mounting hole diameter		mm	8	8
Bolt circle diameter		mm	438	438

PRO SERIES

L 10/561K: FULL RANGE
L 10/581K: MID

MODEL			L 10/561K	L 10/581K
Code no.			111.30.010 (8Ω) 111.32.010 (4Ω)	111.30.016 (8Ω) 111.32.018 (4Ω)
SPECIFICATIONS				
Nominal diameter		mm	250	250
Nominal impedance		Ω	8	8
Frequency response		Hz	67-4000	67-7000
Power handling 100 hour IEC noise		W	200	160
Power handling AES standard		W	250	200
Sensitivity (1W/1m)		dB	98	101
ADDITIONAL DESCRIPTIVE DATA				
Voice coil diameter		mm	51	51
Voice coil material			Copper	Copper
Voice coil former			Kapton	Kapton
Flux density		Tesla	1.02	1.2
Basket			Cast AL	Cast AL
PHYSICAL CONSTANTS				
Effective diaphragm diameter	D	m	0.21	0.21
Moving mass	Mms	kg	0.027	0.023
Mechanical compliance	Cms	m/N	0.0002	0.00024
BL Factor		Tesla m	13.2	12.4
SMALL PARAMETERS				
Resonance frequency	Fs	Hz	67	66
Total efficiency factor	Qts		0.38	0.30
Mechanical efficiency factor	Qms		5	3.4
Electrical efficiency factor	Qes		0.41	0.32
Equivalent air volume	Vas	m^3	0.033	0.039
Reference efficiency	η_o	%	2.32	3.43
Voice coil resistance	Re	Ω	6.3	5.1
Effective diaphragm area	Sd	m2	0.034	0.034
Peak linear displacement of diaphragm	Xmax	mm	± 4	± 1
DIMENSIONS AND WEIGHT				
Net weight		kg	3.650	4.4
Overall diameter		mm	260	260
Overall depth		mm	116	117
Baffle cut-out diameter		mm	230	230
No. of mounting holes			8	8
Mounting hole diameter		mm	5.5	5.5
Bolt circle diameter		mm	244.5	244.5

PRO SERIES

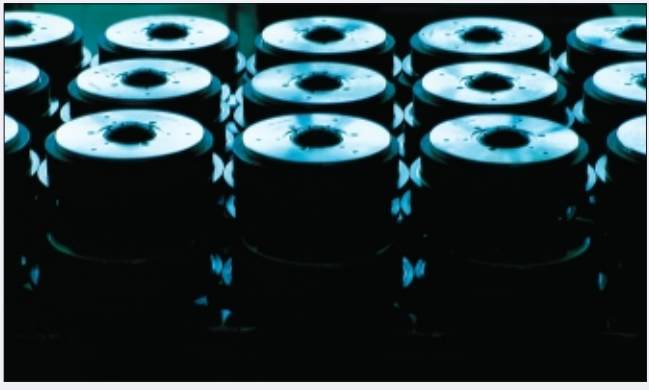
L 12/565K - L12/854K: FULL RANGE

MODEL			L 12/565K	L 12/854K
Code no.			111.40.026 (8Ω)	111.40.030 (8Ω)
SPECIFICATIONS				
Nominal diameter		mm	300	300
Nominal impedance		Ω	8	8
Frequency response		Hz	55-5000	66-4000
Power handling 100 hour IEC noise		W	200	250
Power handling AES standard		W	250	350
Sensitivity (1W/1m)		dB	98	100
ADDITIONAL DESCRIPTIVE DATA				
Voice coil diameter		mm	51	64
Voice coil material			Copper	Copper
Voice coil former			Kapton	Kapton
Flux density		Tesla	1.4	1.2
Basket			Cast AL	Cast AL
PHYSICAL CONSTANTS				
Effective diaphragm diameter	D	m	0.26	0.26
Moving mass	Mms	kg	0.43	0.038
Mechanical compliance	Cms	m/N	0.00014	0.00014
BL Factor		Tesla m	13	13.7
SMALL PARAMETERS				
Resonance frequency	Fs	Hz	63	67
Total efficiency factor	Qts		0.56	0.38
Mechanical efficiency factor	Qms		16.6	3.4
Electrical efficiency factor	Qes		0.58	0.43
Equivalent air volume	Vas	m^3	0.057	0.053
Reference efficiency	η_o	%	2.43	3.63
Voice coil resistance	Re	Ω	5.8	5
Effective diaphragm area	Sd	m2	0.053	0.051
Peak linear displacement of diaphragm	Xmax	mm	± 4	± 1
DIMENSIONS AND WEIGHT				
Net weight		kg	4.1	5.4
Overall diameter		mm	320	320
Overall depth		mm	134	137
Baffle cut-out diameter		mm	285	285
No. of mounting holes			8	8
Mounting hole diameter		mm	7	7
Bolt circle diameter		mm	300	300

PRO SERIES

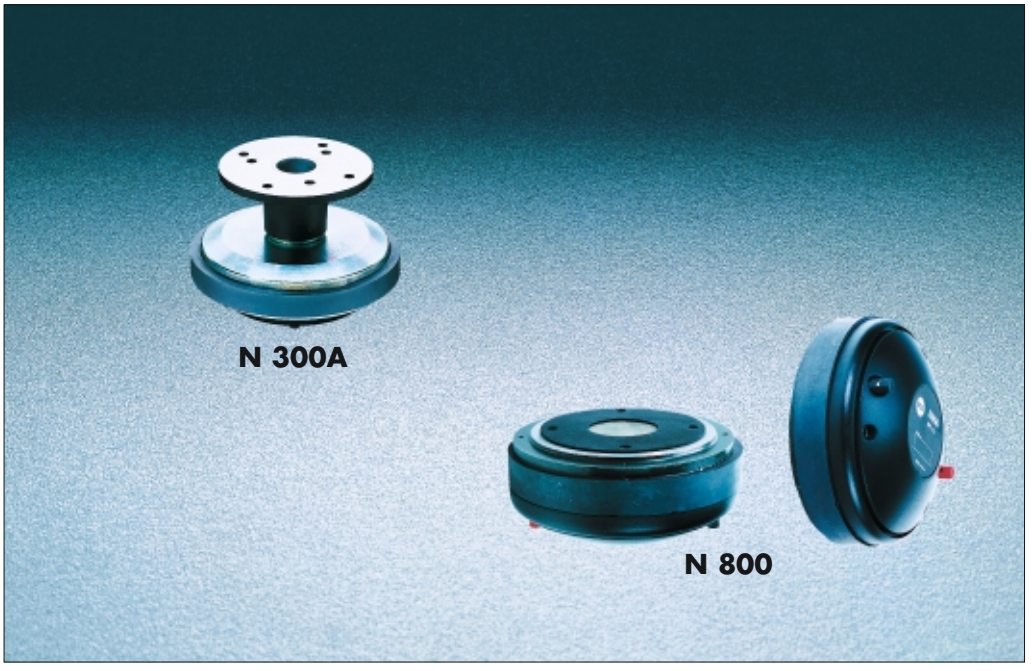
L 15/542K - L 15/854K: BASS - MID BASS
L 15P801: LOW FREQUENCY - HIGH OUTPUT POWER

MODEL			L 15/542K	L 15/854K	L 15P801
Code no.			111.60.012 (8Ω)	111.60.013 (8Ω) 111.62.013 (4Ω)	111.60.017 (8Ω)
SPECIFICATIONS					
Nominal diameter		mm	380	380	380
Nominal impedance		Ω	8	8	8
Frequency response		Hz	45-2500	45-3500	40-4000
Power handling 100 hour IEC noise		W	400	250	350
Power handling AES standard		W	500	350	450
Sensitivity (1W/1m)		dB	98	100	102
ADDITIONAL DESCRIPTIVE DATA					
Voice coil diameter		mm	75	64	75
Voice coil material			Copper	Copper	Copper
Voice coil former			Kapton	Kapton	Kapton
Flux density		Tesla	1.3	1.2	1.45
Basket			Cast AL	Cast AL	Cast AL
PHYSICAL CONSTANTS					
Effective diaphragm diameter	D	m	0.33	0.33	0.33
Moving mass	Mms	kg	0.084	0.066	0.076
Mechanical compliance	Cms	m/N	0.00014	0.00017	0.00016
BL Factor		Tesla m	21.5	14	21
SMALL PARAMETERS					
Resonance frequency	Fs	Hz	45	47	45
Total efficiency factor	Qts		0.36	0.52	0.23
Mechanical efficiency factor	Qms		9	13	4.5
Electrical efficiency factor	Qes		0.37	0.54	0.25
Equivalent air volume	Vas	m^3	0.146	0.177	0.163
Reference efficiency	η_o	%	3.65	3.34	5.85
Voice coil resistance	Re	Ω	7.2	5.4	5.1
Effective diaphragm area	Sd	m2	0.085	0.085	0.085
Peak linear displacement of diaphragm	Xmax	mm	± 4.5	± 1	± 2.5
DIMENSIONS AND WEIGHT					
Net weight		kg	9	5.500	9.1
Overall diameter		mm	387	387	387
Overall depth		mm	162	153	155
Baffle cut-out diameter		mm	356	356	355
No. of mounting holes			8	8	8
Mounting hole diameter		mm	6.5	6.5	6.5
Bolt circle diameter		mm	371	371	371



N 350 - N 450 - N 850: MID-HIGH

MODEL		N 350	N 450	N 850
Code no.		151.20.056	151.20.057	151.20.058
SPECIFICATIONS				
Horn throat exit diameter	mm	25.4 (1")	25.4 (1")	50.8 (2")
Mounting type		Bolt-on	Bolt-on	Bolt-on
Nominal impedance	Ohm	8	8	8
Frequency response	Hz	1.000-20.000	1.000-20.000	500-20.000
Minimum cut-off frequency	Hz	1.500	1.500	800
Long therm power 100 hours IEC noise	W	30	35	75
Program power	W	60	75	150
Peak power	W	120	150	300
Sensitivity (1W/1m on axis) with H 100 horn	dB	106	107	109
Sensitivity (1W/1m on axis) with H 6040 horn	dB	–	–	109
ADDITIONAL DESCRIPTIVE DATA				
Diaphragm		Titanium	Titanium	Titanium
Voice coil diameter	mm	44.4	44.4	74.4
Voice coil material		Aluminium flat wire	Aluminium flat wire	Aluminium flat wire
Voice coil former		Kapton	Kapton	Kapton
Flux density	Tesla	1.4	1.6	1.6
DIMENSIONS AND WEIGHT				
Mounting flange diameter	mm	97	130	172
Hole pattern		2	2 - 3	4
2 holes equally spaced on dia.	mm	76	76 - 58	101.5
Overall diameter	mm	102	134	180
Overall depth	mm	60	70	95
Net weight	kg	1.4	2.8	4.7



N 300A - N 800: MID-HIGH

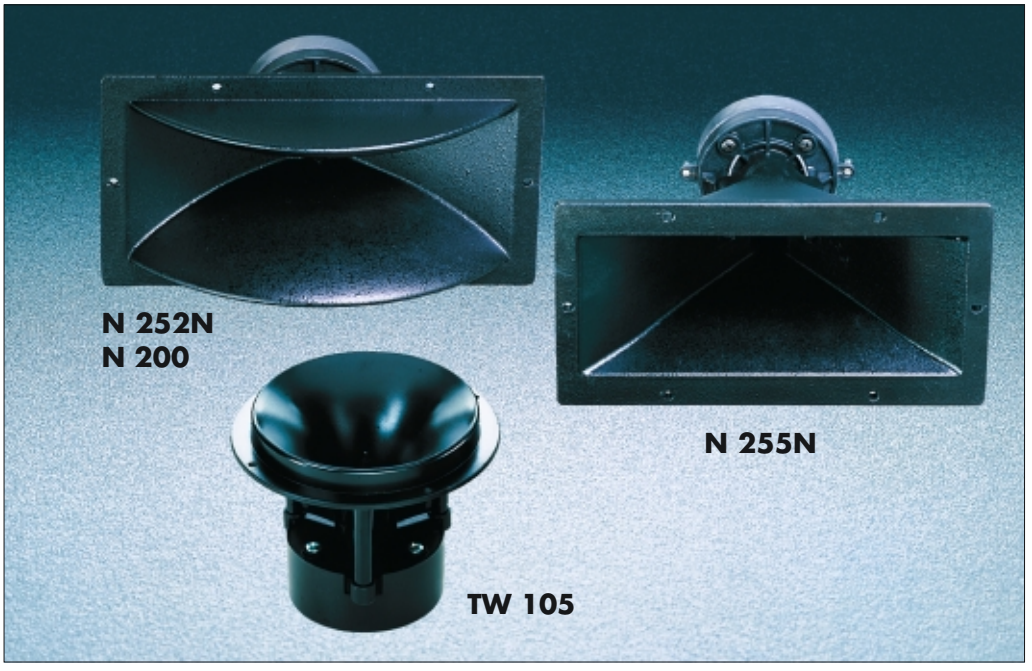
MODEL		N 800	N 300A
Code no.		151.20.055	151.20.052
SPECIFICATIONS			
Horn throat exit diameter	mm	50 (2")	
Horn connection diameter	mm		25.4
Type of fixing			Flange
Mounting type		Bolt-on	
Nominal impedance	Ohm	8	
Rated impedance	Ohm		8*
Frequency response	Hz	500 - 20000	1000-20000
Minimum cut-off frequency	Hz	1,000	1,800
Long-term power (100 hours)	W		30
Program power	W		75
Power handling 100 hours IEC noise	W	75	
Power continuous program	W	150	
Peak power	W	300	150
Sensitivity (1W/1m on axis)			
With horn H 2006 (60°x30°)	dB		–
With horn H 100 (90°x75°)	dB		108
With horn H 3709 (90°x75°)	dB		104
With horn H 2009 (120°x50°)	dB		105
With horn H 9041 (90°x40°)	dB		105
With horn H 6040 (90°x60°)	dB	111	110***
With horn H 9040 (90°x75°)	dB	109	108***
ADDITIONAL DESCRIPTIVE DATA			
Diaphragm		Carbon fiber	Carbon fier
Voice coil diameter	mm	71	38
Voice coil material		Aluminium flat wire	
Winding material			Flat aluminium
Coil support material			Nomex
Voice coil former		Fiber Glass	
Flux density	Tesla	1.6	1.75
DIMENSIONS AND WEIGHT			
Fixing flange diameter	mm		99
Fixing hole diameter	mm		6.5
Mounting flange diameter	mm	120	
Number hole centre distance			3 - 4
Fixing hole centre distance	mm		58 - 76
Hole pattern			
4 holes equally spaced on dia.	mm	101.5	
Overall diameter	mm	170	132
Overall depth	mm	78	95
Net weight	kg	5.560	2.65

* Minimum impedance 5,5 Ohm – *** With N. 1 A1324 + N. 2 N 300A

N 481K - N 482 - N 681 - N 980: MID-HIGH
N 580: FULL-RANGE

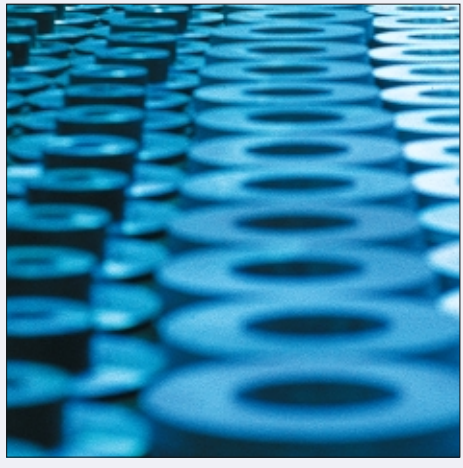
MODEL		N 482	N 481K	N 580	N 681	N 980
Code no.		151.20.043	151.20.042	151.20.025	151.20.037	151.20.039
SPECIFICATIONS						
Horn throat exit diameter	mm	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	50 (2")
Mounting type		Bolt-on	Bolt-on	Bolt-on	Bolt-on	Bolt-on
Nominal impedance	Ω	8	8	8	8	8
Frequency response	Hz	500-20000	500-20000	450-20000	500-20000	500-20000
Minimum cut-off frequency	Hz	1000	1000	800	1000	500
Power handling 100 hour IEC noise	W	30	55	60	35	100
Power handling continuous prog.	W	90	120	120	100	250
Sensitivity (1W/&m)						
With H 2006 horn	dB	–	104.5	–	108	–
With H 2009 horn	dB	103	104	–	106	–
With H 3709 horn	dB	106	106	100.5	108	–
With H 4823 horn	dB	–	108	103	–	–
With H 6040 horn**	dB	109	110	–	110	111
With H 9040 horn**	dB	107	108	–	109	109
With H 9041 horn	dB	106	106	100.5	108	–
ADDITIONAL DESCRIPTIVE DATA						
Diaphragm		Titanium	Phenolic diaph.	Phenolic diaph.	Titanium	Carbon fiber
Voice coil diameter	mm	44.4	44.4	52	44.4	71
Voice coil material		AL flat wire	Copper	Copper	AL flat wire	Copper
Voice coil former		Kapton	Kapton	Kapton	Kapton	Kapton
Flux density	Tesla	1.95	1.95	1.74	1.98	1.6
DIMENSIONS AND WEIGHT						
Horn mounting		–	–	–	–	–
Screw type		–	–	–	–	–
Mounting flange diameter	mm	140	–	99	100	120
Hole pattern						
3 holes equally spaced on dia.	mm	58	58	58	58	–
4 holes equally spaced on dia.	mm	–	76	76	76	101,5
4 holes equally spaced on dia.	mm	–	–	85	–	–
Overall diameter	mm	146	146	145	160	190
Overall depth	mm	68	68	115	95	130
Net weight	kg	3.1	3.100	3.800	6	11
Replacement diaphragm		M59	M50	M35	M59	M60

** 2 units with A 1324 ref. 1W/1m



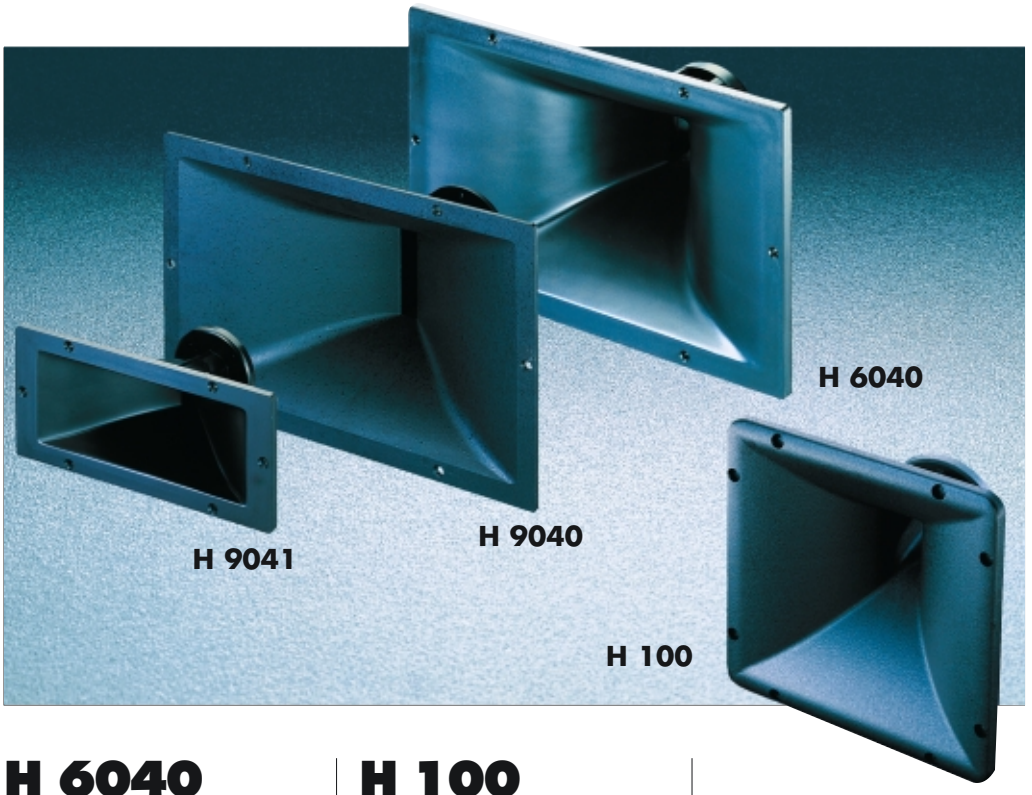
TW 105 - N 255N: HIGH FREQUENCY TWEETER
N 200 - N 252N: HIGH FREQUENCY - WIDE COVERAGE TWEETER

MODEL		TW 105	N 200	N 252N	N 255N
Code no.		151.20.018	151.20.053	151.20.050	151.20.049
SPECIFICATIONS					
Power handling 100 hour IEC noise	W	30	15	20	20
Power continuous program	W	150	45	150	150
Peak power	W		90		
Nominal impedance	Ω	8	8	8	8
Sensitivity (1W/1m)	dB	102.5	103.5	102.8	103.7
Frequency response	Hz	2400-20000	2000-20000	1500-20000	1500-20000
Minimum cut-off frequency	Hz	5000	4000	4000	4000
Flux density	Tesla	1.35	1.55	1.95	1.95
Total flux	Weber10^{-3}	0.318	0.320	0.387	0.387
Coverage angle (horiz.xvert.) -10 dB		120°	150°x100°	150°x100°	120°x100°
Coverage angle (horiz.xvert.) -6 dB		80°	100°x60°	100°x60°	90°x40°
ADDITIONAL DESCRIPTIVE DATA					
Mouth dimensions LxH	mm	97	230x125	230x125	230x125
Voice coil diameter	mm	25	25	25	25
Voice coil material		Copper	Aluminium flat wire	Aluminium	Aluminium
Voice coil former			Nomex		
Diaphragm		Plastic film	Mylar (Pet)	Plastic film	Plastic film
Horn material		ABS resin	Aluminium	Aluminium	Semi-expanded Polystyrene
Replacement diaphragm		M 16	M 77	M 38	M 38
Total depth	mm	126	66	148	170
Net weight	kg	0.85	1.1	1.1	0.9
MOUNTING DETAILS					
Baffle cut-out for front mounting	mm	98	□ 202x90	□ 202x90	□ 202x95
Number of mounting holes		4	6	6	6
Diameter of holes-pattern	mm	120	□ 216x111	□ 216x111	□ 216x111



H 3709: FLUSH FRONT
A 1319 - A 1323 - A 1324: ADAPTORS

MODEL		**N 3709**
Code no.		131.25.007
SPECIFICATIONS		
Horn type		Expo
Material		Cast AL
Nominal coverage angle (HxV) -10 dB		120°x110°
Nominal coverage angle (HxV) -6 dB		90°x80°
Cut-off frequency	Hz	550
Throat diameter	mm	25.4
Mouth dimensions LxH	mm	374x90
Driver mounting		
Standard screw type		–
Mounting flange diameter	mm	99
Mounting hole diameter	mm	6.5
No. of mounting holes		3 - 4
Bolt circle diameter	mm	58 - 76
Total length	mm	215
Overall dimensions LxH	mm	426x140
Baffle cut-out mounting	mm	382x100
Net weight	kg	1.550



H 6040
H 9040
H 9041

HORNS WITH CONSTANT DIRECTIVITY

H 100

HORNS WITH MODIFIED CONSTANT DIRECTIVITY

The H 100 horn is distinguished by its uniform profile and coverage angle of 90°x75° (horiz.xvert.).

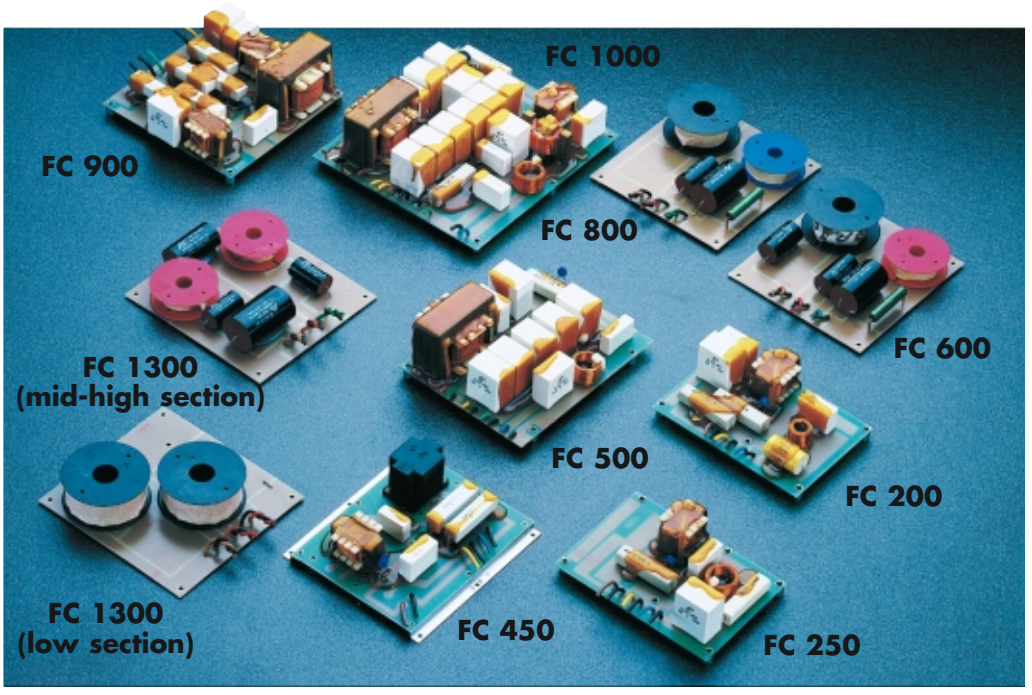
The horn furnished a uniform diffusion on and off the axis, on both the horizontal and vertical planes, from 800 Hz toover 16 kHz. More precisely, the modification of directivity allows obtaining the same equalization at the medium-high frequencies ≤ 5 kHz) off the axis in the field nearby and on the axis in far-off fields: in this way there is a more uniform distribution of the sound in space.

The dimensions of the horn mouth have been defined to ensure a wide angle of coverage and a linear frequency response in every direction.

The profile of the horn has been calculated and optimized with the aid of a computer simulation based on the theory of the uniform development of the section. This theory is based on the mathematical law of the "Polynomial of the 6th degree" and enables designing curves with constant parameters for their entire course.

MODEL		H 100	H 6040	H 9040	H 9041
Code no.		131.20.015	131.25.012	131.25.011	131.25.013
SPECIFICATIONS					
Material		Struct.polyurethane	Struct. polyurethane	Cast AL	Struct. polyurethane
Nominal cover. angle (HxV) -10 dB		–	–	–	–
Nomin. coverage angle (HxV) -6 dB		90°x75°	60°x40°	90°x40°	90°x40°
Cut-off frequency	Hz	800	400	400	800
Throat diameter	mm	25.4 (1")	50 (2")	50 (2")	25.4 (1")
Mouth dimensions LxH	mm	180x180	424x248	420x245	264x102
Driver mounting					
Standard screw type		–	–	–	–
Mounting flange diameter	mm	99	120	120	99
Mounting hole diameter	mm	6.5	6.5	6.5	6.5
No. of mounting holes		3 - 4	4	4	3 - 4
Bolt circle diameter	mm	58 - 76	101.5	101.5	58 - 76
Total length	mm	133	244	245	156
Overall dimensions LxH	mm	220x220	470x291	470x294	314x142
Baffle cut-out mounting	mm	182x182	430x253	430x253	260x108
Net weight	kg	0.5	2.8	3	0.490

CROSSOVER FILTERS



MODEL		FC200	FC250	FC450
Code no.		163.10.020	163.10.021	163.10.022
Type		Two-way passive cross.	Two-way passive cross.	Two-way passive cross.
Nominal impedance	Ohm	8	8	8
Crossover frequency	Hz	4000	4000	4000
Slope	dB/oct	6/18	6/18	12
Continuous power	Watt	150	150	250
Maximum power	Watt	300	300	450
Protection		PTC protection on highs	PTC protection on highs	PTC protection on highs
Dimensions	mm	148x104	148x103	149x121
Notes		*	**	

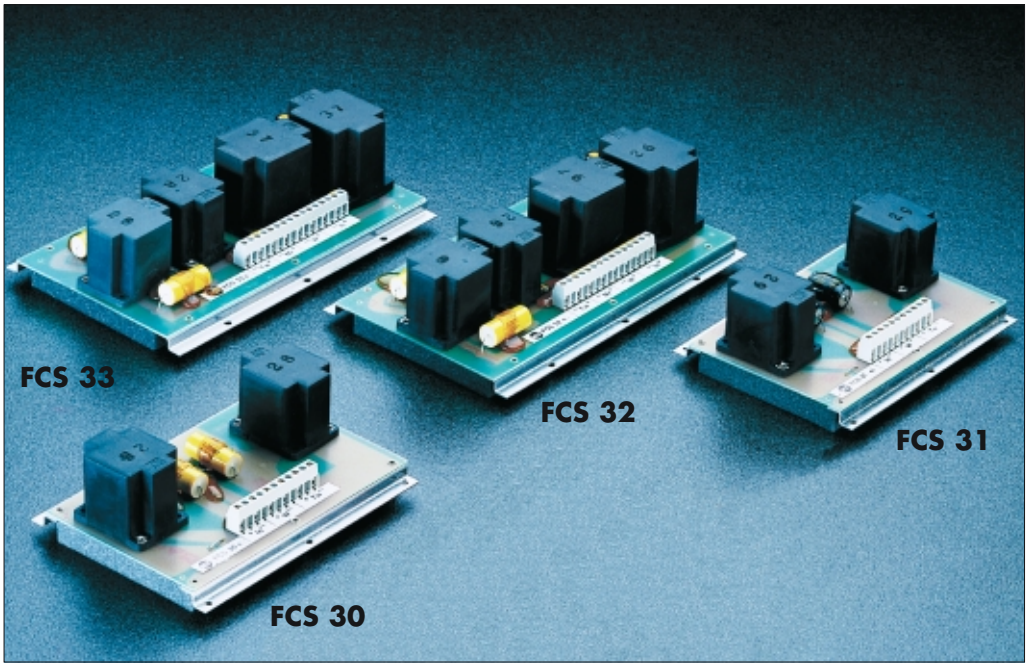
* Low-pass network with speaker inductance compensation cell. – ** High-pass network with compensation resistance.

MODEL		FC500	FC600	FC800
Code no.		163.10.023	163.10.026	163.10.027
Type		Three-way passive cross.	Two-way passive cross.	Two-way passive cross.
Nominal impedance	Ohm	8	8	8
Crossover frequency	Hz	500/5000	1200	1200
Slope	dB/oct	12/6/18	12/18	6/18
Continuous power	Watt	250	300	400
Maximum power	Watt	500	600	800
Protection		PTC protection on highs		
Dimensions	mm	167x132	150x148	150x148

MODEL		FC900	FC1000	FC1300
Code no.		163.10.028	163.10.024	163.10.029
Type		Three-way passive cross.	Three-way passive cross.	Three-way passive cross.
Nominal impedance	Ohm	8		
Nominal impedance low section	Ohm		4	4
Nominal impedance mid-high section	Ohm		8	8
Crossover frequency	Hz	400/4000	500/3000	250/1500
Slope	dB/oct	6/6/18	12	6/6/18
Continuous power	Watt	450	500	650
Maximum power	Watt	900	1000	1300
Protection		–	PTC protection on highs	–
Dimensions	mm	150x148	200x182	150x148 (low section high-section)
Notes		*	**	***

* Crossover with resistive deviders for optimal alignment of the response of the individual transducers. – ** Separate inputs for low and medium-high frequencies (can be used in bi-amplification). – *** Crossover composed of 2 separate boards for the low and medium-high frequencies sections. Can be used in bi-amplification thank to separate inputs for low and medium-high frequencies. High-pass network with response compensation cell.

CROSSOVER FILTERS



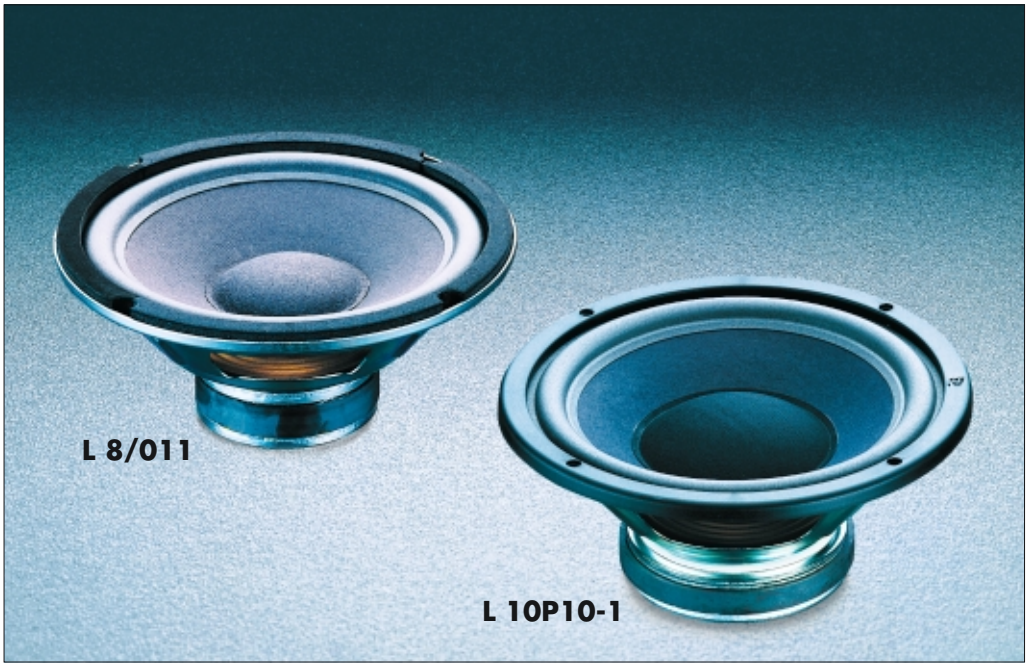
MODEL		FCS30	FCS31	FCS32
Code no.		163.13.006	163.13.007	163.13.008
Power rating	Watt	100	100	100
Max. power	Watt	300	300	300
Input impedance	Ohm	8**	8	8**
Crossover frequencies	Hz	5000	2000	500/5000
Slope	dB/oct	12	12	12

** The above mentioned loudspeakers can be supplied on request with nominal impedance of 4 Ohm.

MODEL		FCS33
Code no.		163.13.009
Power rating	Watt	100
Max. power	Watt	300
Input impedance	Ohm	8
Crossover frequencies	Hz	1000/5000
Slope	dB/oct	12

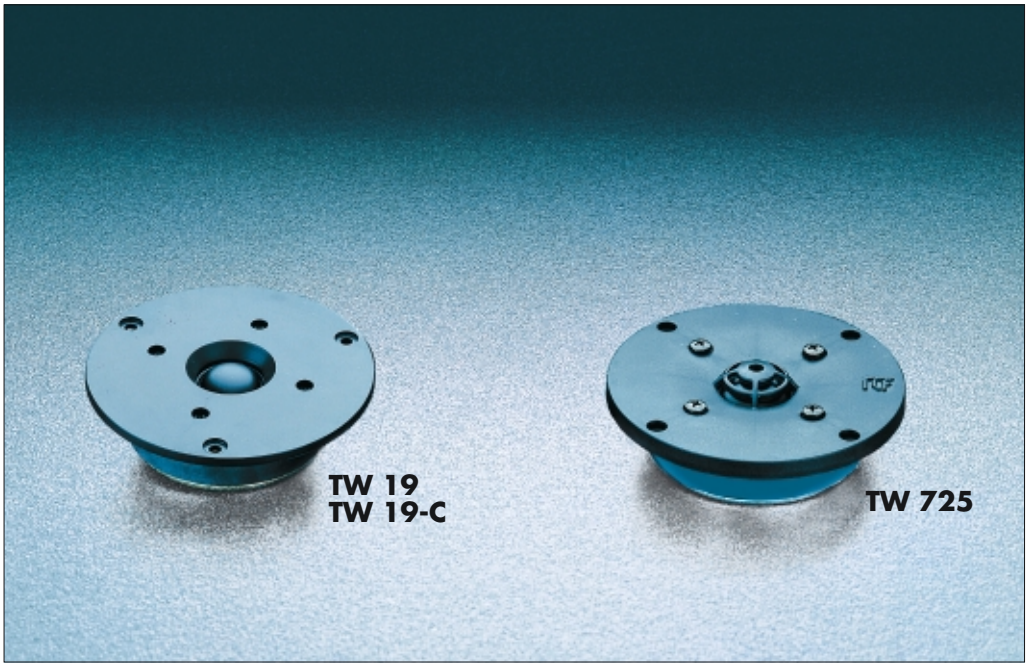
KITS

KITS			
KIT 1300	1300/650 W	3 WAYS	2xL 15/554K - L12P110K - N980 - H 9040 - FC1300
KIT 1000	1000/500 W	3 WAYS	2xL 15/542K - L10/750YK - N481K - H2009 - FC1000
KIT 900	900/450 W	3 WAYS	L 18P751 - L 10/581K - N481K - H3709 - FC900
KIT 800	800/400 W	2 WAYS	L15P200AK - N580 - H3709 - FC800
KIT 600	600/300 W	2 WAYS	L 15/554K - N580 - H 3709 - FC600
KIT 500	500/250 W	3 WAYS	L 15/542K - L 10/561K - N 255N - FC500
KIT 450	450/275 W	2 WAYS	L 15/554K - TW116 - FC450
KIT 250/250S	250/150 W	2 WAYS	L 12/565K - N 255N - FC250
KIT 200	200/100 W	2 WAYS	L 12CX2K - FC200
KIT 1200	1200/600 W	ONE WAY	2xL 15P200AK



L 8/011 - L 10P10-1: LOW FREQUENCY WOOFER

MODEL			L 8/011	L 10P10-1
Code no.			111.20.002 (8Ω) 111.22.002 (4Ω)	111.35.008 (8Ω) 111.37.008 (4Ω)
SPECIFICATIONS				
Nominal diameter		mm	200	250
Nominal impedance		Ω	8	8
Frequency response		Hz	33-3000	20-3000
Power handling 100 hour IEC noise		W	80	75
Power handling AES standard		W	90	100
Sensitivity (1W/1m)		dB	90	90
ADDITIONAL DESCRIPTIVE DATA				
Voice coil diameter		mm	25	38.7
Voice coil material			Copper	Copper
Flux density		Tesla	0.85	0.91
Basket			Steel	Steel
PHYSICAL CONSTANTS				
Effective diaphragm diameter	D	m	0.15	0.19
Moving mass	Mms	kg	0.013	0.028
Mechanical compliance	Cms	m/N	$1.7 \cdot 10^{-4}$	$2.2 \cdot 10^{-3}$
BL Factor		Tesla m	5.9	7.1
SMALL PARAMETERS				
Resonance frequency	Fs	Hz	33	20
Total efficiency factor	Qts		0.37	0.34
Mechanical efficiency factor	Qms		4	12
Electrical efficiency factor	Qes		0.4	0.35
Equivalent air volume	Vas	m^3	0.1	0.25
Reference efficiency	η_o	%	0.85	0.55
Voice coil resistance	Re	Ω	5.1	5
Effective diaphragm area	Sd	m2	0.0177	0.0284
Peak linear displacement of diaphragm	Xmax	mm	± 4	± 6
DIMENSIONS AND WEIGHT				
Net weight		kg	1.25	3
Overall diameter		mm	210	256
Overall depth		mm	82	100
Baffle cut-out diameter		mm	183	231
No. of mounting holes			4	4
Bolt circle diameter		mm	197	245



TW 725 - TW 19 - TW19-C: HI-FI TWEETERS

MODEL		TW 725	TW 19 TW 19C
Code no.		151.20.024 (8Ω)	151.29.007 (8Ω) 151.29.015 (4Ω)
SPECIFICATIONS			
Power handling 100 hour IEC noise	W	20	20
Power continuous program IEC	W	100	35
Nominal impedance	Ω	8	4
Sensitivity (1W/1m)	dB	91	88
Frequency response	Hz	850-20000	2000-20000
Minimum cut-off frequency	Hz	2000	2500
Flux density	Tesla	1.95	1.24
Total flux	Weber 10^{-3}	0.387	0.16
Coverage angle (horiz.xvert.) -10 dB		180°	180°
Coverage angle (horiz.xvert.) -6 dB		150°	150°
ADDITIONAL DESCRIPTIVE DATA			
Overall diameter	mm	110	100
Voice coil diameter	mm	25	19
Diaphragm		Plastic film	Plastic film
Total depth	mm	30	26.7
Net weight	kg	0.628	0.4
MOUNTING DETAILS			
Baffle cut-out diameter	mm	86	76
No. of mounting holes		4	3
Bolt circle diameter	mm	98	88

Product index