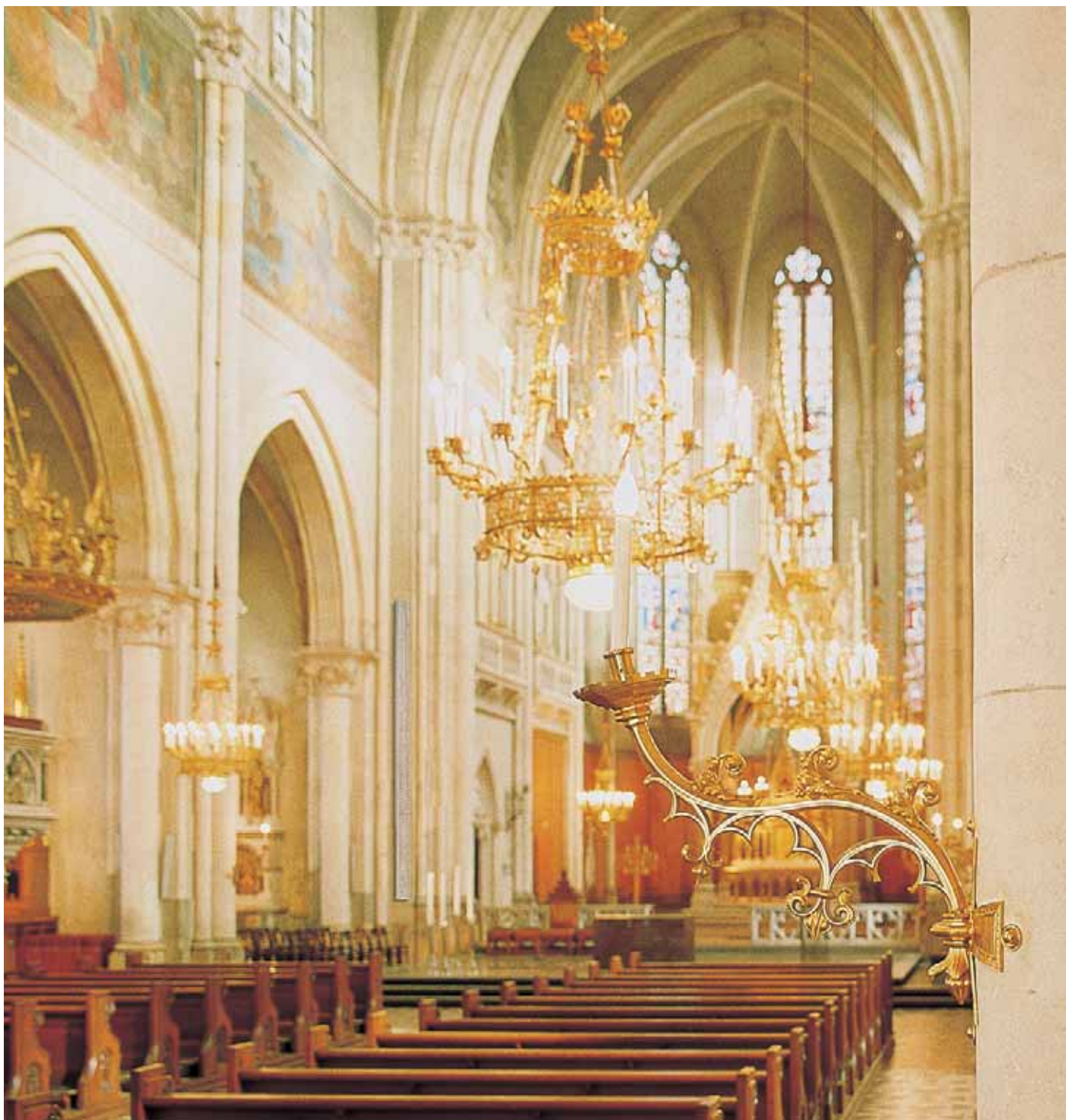




NEOFOCUS SPEAKER SYSTEMS

DIRECTED SOUND PROJECTIONS
with best speech intelligibility in reverberant spaces such
as churches, railway station, departure and exhibition halls
(speaker systems under certification according to EN 54-24)


www.itec-audio.com



Application areas

Wherever acoustic reverberation times reach or exceed values like comparatively measured in a concert hall, it is difficult or impossible to achieve satisfactory results in terms of speech intelligibility with standard speaker systems.

In our old landmarked churches, but also in many modern hangars these reverberation times are much too high and require therefore special public address systems. Room acoustic measures would be desirable, but are not feasible either due to conservation reasons or due to the architectural requirements. The solution for these sound engineering tasks is: ITEC "NEOFOCUS", the actual further development of the proven ITEC "FOCUS" series.

Further advantages, compared to standard acoustic sound solutions are:

- With only one "NEOFOCUS" speaker you are able to supply areas of 600sq.m. and more!
- This results in significantly less cabling and installation costs
- Architectural perfectly integrated, vertical mounting possible (no tilting required)
- Coloring as desired

Technology

Classic speaker systems have a frequency-dependent angle of radiation. That means, that low frequencies are emitted nearly spherical but when reaching higher frequencies the sound radiation is concentrated more and more. This kind of speakers causes in reverberant spaces a strong reverberation field. In a consequence the speech intelligibility even at short distances of a few meters to the speaker system is no longer given. The classic responses of sound system engineering were and are the implementation of speakers that are arranged in a form of an acoustic line. But these sound arrays have their physical limitations: The longer a sound array is, the better the vertical directivity at low frequencies, however, the reproduction of high frequencies deteriorates. The compromise lies in a sound line with a total length of about one meter.

The ITEC "FOCUSLINE" speaker systems are equipped with a technology that overcomes the shortcomings of classic speaker systems respectively sound arrays and ensures a frequency-independent radiation. The individual groups of speakers in the "NEOFOCUS" sound array are driven independently via one controller / amplifier output in terms of frequency, phase and time, resulting in a homogeneous, controlled and adjustable sound result. The algorithms for the adjustment of the sound line are stored within ITEC "FOCUS-CONTROL": Its intuitive configuration software ITEC "SPLITDESIGN" is easy to operate for each technician.

Advantages of the passive variant of the "NEOFOCUS" series:

On the market available are mainly „active“ controlled sound line systems. Many years ago we have decided to implement sound lines themselves in a „passive“ variant and to install signal processing components and power amplifiers at one central spot.

Major advantages of this passive variant are:

- Cost savings for installation and wiring (only one cable required)
- Significant cost savings as soon two "NEOFOCUS" sound lines are needed (parallel connection of several systems possible)
- Weather-resistant designs for exterior applications (WP-Series)
- Systems under certification according to EN 54-24 (only possible for passive versions)

Speaker enclosure - Made of wood or aluminum?

The "NEOFOCUS" series comes in two body versions: plywood enclosure, PU varnish coated for indoor applications and alternatively densely welded, powder-coated aluminum housings for outdoor use (Safety class IP33). The acoustic properties of the two versions are identical, thus the selection criterion is limited to the installation site. The drivers themselves are equipped with neodymium magnets and are absolute weatherproof. Therewith a consistent performance is guaranteed for decades.

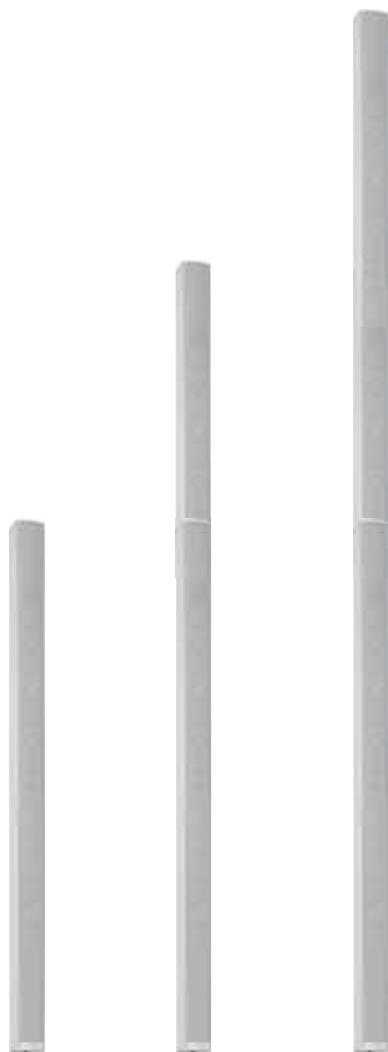
Conclusions

With the ITEC "NEOFOCUS" series of controllable sound line systems, we offer an advanced acoustic technology, which can easily solve challenging sound reinforcement applications. In combination with the ITEC "POWER BASS" speaker systems adequate musical performances, both live sessions and canned music become a sonic experience.



Properties

- Multi-channel sound line speaker
- High efficiency and avoidance of reverberation through extremely high degree of vertical focusing;
- Ranges from 20 to 50 meters
- Uniformly high sound pressure levels up to 96 dBA at distances of up to 40 meters
- Minimal wiring effort (only one multi-pin signal cable)
- Excellent speech intelligibility, entire suitable for music



Standard model variants

GENERAL:

ITEC NEOFOCUS 4

Controllable noise line, 4-channel, 16 pieces of Neodymium Full Range Driver 3", 8-pin. multi-pin connector
Color: white, including mounting bracket

ITEC NEOFOCUS 6

Controllable noise line, 6-channel, 24 pieces of Neodymium Full Range Driver 3", 12-pin. multi-pin connector,
Color: white, including mounting bracket

ITEC NEOFOCUS 8

Controllable noise line, 8-channel, 32 pieces of Neodymium Full Range Driver 3", 16-pin. multi-pin connector,
Color: white, including mounting bracket

EXECUTION LI /low impedance:

Low-impedance design, 80 watts RMS per channel / 8 ohms, plywood enclosure, front cover made of steel, galvanized, coated

EXECUTION 100V:

„100 V“ design, each channel 50 Watt/100 V, plywood enclosure, front cover made of steel, galvanized, coated

EXECUTION WP 54-24:

„100 V“ design, each channel 50 Watt/100 V, weatherproof aluminum housing, IP33, front cover made of steel, galvanized, coated

Colours

white custom colours



Accessories

Mounting brackets short (standard)

Dimensions: 9 x 6,5 cm

ITEC FOCUS-CONTROL 4/8 digital

The heart piece of the NEOFOCUS is the ITEC FOCUS-CONTROL. It provides for signal processing for all NEOFOCUS speakers and can be configured very easily using the provided configuration software SPLITDESIGN. When going live, you have to configure only two parameters:

- Speaker type
- Focal point (distance and sound projection angle)
- Angle of beam (a measure to the vertical height of projection)
- Presence (2 settings from high authenticity of sound to optimal intelligibility)

ITEC "FOCUS-CONTROL" allows you to control either 2 units of ITEC "NEOFOCUS 4" or 1 unit of ITEC "NEOFOCUS 6" respectively ITEC "NEOFOCUS 8". A 5-band parametric equalizer and a digital delay allow an optimal adaptation to the acoustic room characteristics and modifications as a function of the distance to other systems. Up to ten complete configurations can be programmed and retrieved at any time



Features

FOCUS-CONTROL	
Frequency Response	20 Hz – 20 KHz / -1 dB
Harmonic Distorsion	<0,005 %
Overall Dynamics	103 dB
Power Supply	external power supply unit, input 115-230 VAC
Inputs	4 x XLR, symmetrical, -60 dB bis +20 dB
Input Impedance	6,6 k Ohm
Phantom Power	12 Volt, switchable
Outputs	8 x XLR, symmetrical, +10 dB
Equalizer	5 parametrical filter is disposable
Delay	0,023 – 500 ms
Serial Interface	a RS-232 for programming and remote control
Ethernet Interface	optional
Dimensions	482 x 44 x 180 mm (W x H x D), 19" / 1 unit rack
Weight	2,40 kg

Power Amplifier ITEC MultiPower 4x75

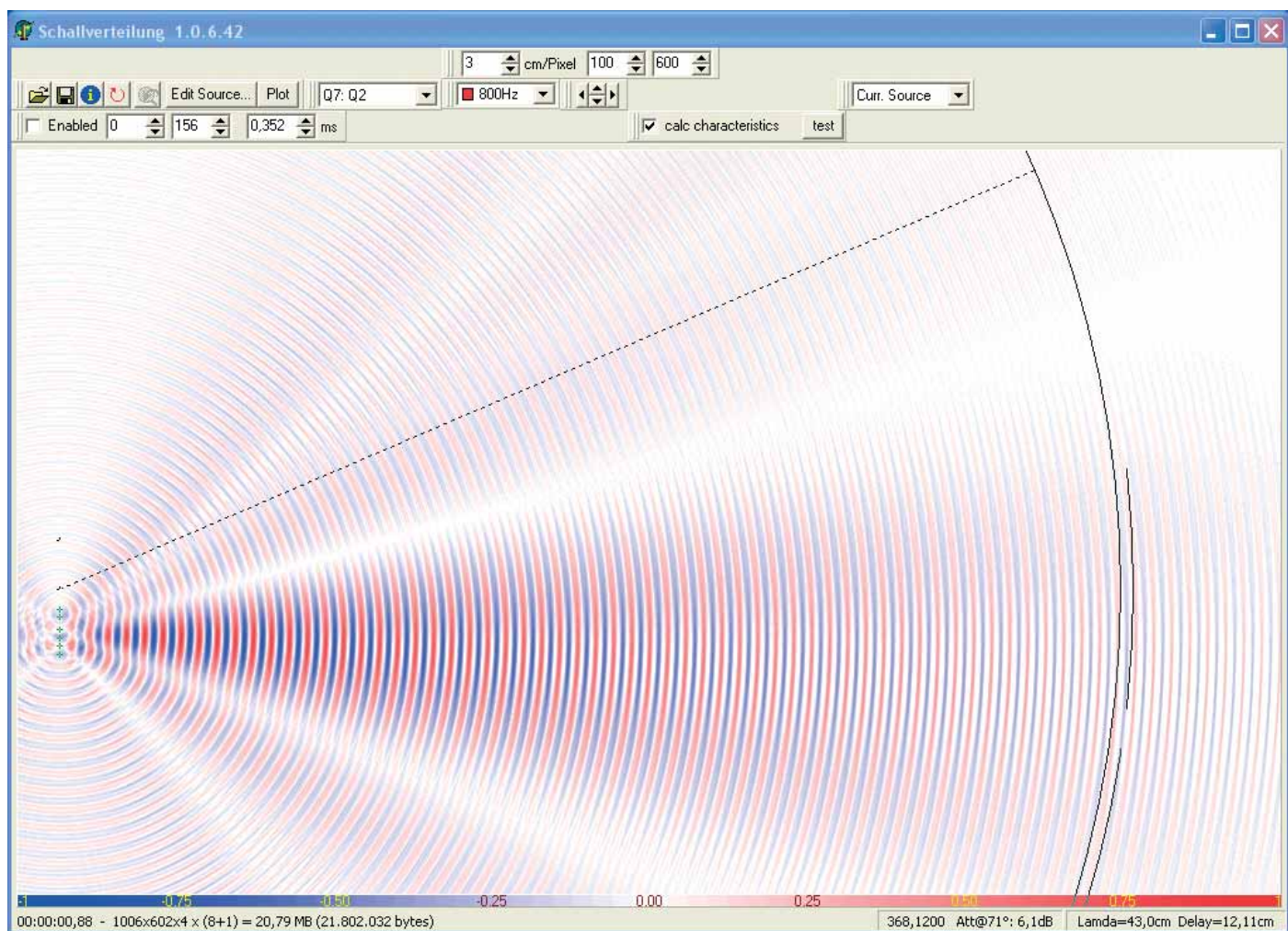
This multi-channel power amplifier was developed specifically for the ITEC NEOFOCUS series. You can power up to 2 NEOFOCUS 4 speaker systems with one output stage. With 2 ITEC MULTIPOWER 4x75T you can power up to 2 NEOFOCUS 6 or NEOFOCUS 8 speaker systems.



Features

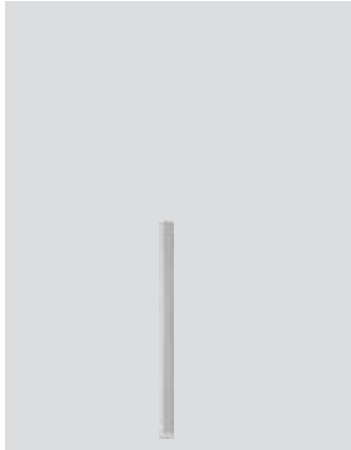

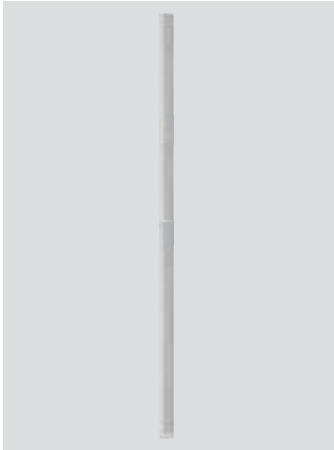
TYPE MULTIPOWER 4x75	
Pout 4 Ohm	4 x 75 Watt RMS
Pout 50/70/100 Volt	4 x 75 Watt RMS
Frequency Response 4 Ohm	20 Hz - 20 kHz
Frequency Response 100 Volt	40 Hz - 20 kHz
Audio-Input	4 x XLR, symmetrical, 0 dB
Volume Control	4 x trim-pots on the back
Input Voltage	110 – 230 VAC
Max. Power Consumption	400 VA
Output Socket	connected 230 V socket on the back
Dimensions	482 x 180 x 48 mm (W x H x D), 19" / 2 rack units
Weight	6,95 kg

NEOFOCUS / Simulation



Simulation of a NEOFOCUS 6 at 800 Hz with an operation distance of 30m at a projection angle of -2° .

NEOFOCUS - SPECIFICATIONS

			
MODELS	NEOFOCUS 4 / LI (LOW IMPEDANCE)	NEOFOCUS 6 / LI (LOW IMPEDANCE)	NEOFOCUS 8 / LI (LOW IMPEDANCE)
Load Rating	320 W / RMS	480 W / RMS	640 W / RMS
Frequency Range	100 Hz - 12 kHz (-6 dB)		
Max. Sound Pressure Level	97 dB at 25 m distance	96 dB at 40 m distance	95 dB at 50 m distance
Radiation Angle	Horizontal: 180° - 500 Hz, 90° at 5 kHz Vertical: Angles of bundling, tilting and radiation adjustable with ITEC FOCUS-CONTROL 4/8 digital		
Dimensions (W x H x D)	100 x 2025 x 100 mm	100 x 3025 x 100 mm	100 x 4025 x 100 mm
Weight	10,5 kg	15,7 kg	20,9 kg
Standard colour	white, RAL 9010		
Provided Accessories	Mounting brackets, multi-pin connectors		
MODELS	NEOFOCUS 4 / 100 V	NEOFOCUS 6 / 100 V	NEOFOCUS 8 / 100 V
Load Rating	200 W / RMS	300 W / RMS	400 W / RMS
Frequency Range	100 Hz - 12 kHz (-6 dB)		
Max. Sound Pressure Level	97 dB at 25 m distance	96 dB at 40 m distance	95 dB at 50 m distance
Radiation Angle	Horizontal: 180° - 500 Hz, 90° at 5 kHz Vertical: Angles of bundling, tilting and radiation adjustable with ITEC FOCUS-CONTROL 4/8 digital		
Dimensions (W x H x D)	100 x 2025 x 100 mm	100 x 3025 x 100 mm	100 x 4025 x 100 mm
Weight	11,9 kg	17,8 kg	23,7 kg
Standard colour	white, RAL 9010		
Provided Accessories	Mounting brackets, multi-pin connectors		
MODELS	NEOFOCUS 4 / WP/ 54-24 (100 V)	NEOFOCUS 6 / WP/ 54-24 (100 V)	NEOFOCUS 8 / WP/ 54-24 (100 V)
Load Rating	200 W / RMS	300 W / RMS	400 W / RMS
Frequency Range	100 Hz - 12 kHz (-6 dB)		
Max. Sound Pressure Level	97 dB at 25 m distance	96 dB at 40 m distance	95 dB at 50 m distance
Radiation Angle	Horizontal: 180° - 500 Hz, 90° at 5 kHz Vertical: Angles of bundling, tilting and radiation adjustable with ITEC FOCUS-CONTROL 4/8 digital		
Dimensions (W x H x D)	100 x 1916 x 100 mm	100 x 2866 x 100 mm	100 x 3816 x 100 mm
Weight	10,8 kg	16,2 kg	21,6 kg
Standard colour	white, RAL 9010		
Provided Accessories	Mounting brackets, multi-pin connectors		

All information without guarantee. Subject to technical changes.



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