







Firenze Series



## ***KH7***

Digital steerable, top-of-the-line performance powered slim line array element



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Ultra-thin PA System and line-array element



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KH8 touring system package



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**KH7**

Digital steerable, top-of-the-line performance  
powered slim line array element

The KH7 is a unique, compact self-powered line array  
element complying with the highest standards,  
both in quality and SPL



**FIRENZE**

S.A.T.



SlimArrayTechnology





Features four 12" coaxial Neodymium magnet woofers,  
providing multiple setups, including both vertical  
and horizontal use



# KH7

Digital steerable touring system with slim array technology

The K-array KH7 speaker is a compact, self-powered, weather resistant, mid-high line array element, complying with the highest standards, both in sound quality and SPL.

The KH7 features four 12” coaxial neodymium magnet woofers, providing multiple setups, included **BOTH VERTICAL AND HORIZONTAL USE**, with an exceptional peak output of 141 dB SPL.

An integrated class D amplifier deliver 4 x 2000 W at 4 Ω with a max THD of 1 % (EIAJ test at 1 kHz, single channel driven). The 4 discrete amplifier channels are controlled via integrated DSP providing an hyper detailed **BEAM STEERING** ability to meet any demanding setup requirement and control sound spillover.

All DSP functions are fully remote controlled via software over Ethernet.

## S.A.T. BENEFITS

- Keeping the stage free of sound pollution thanks to a dispersion in a **HYPER-CARDIOID** figure which maintains the desired directivity with low back emission and minimal side dispersion.
- Better **IMPULSE RESPONSE** and maximum **CLARITY** and **DEFINITION** thanks to the compact design that allows sound to exit instantaneously without resonance, generating a significant amount of sound pressure in the low and low-mid range. Audio technicians who experience it are impressed with how precise any small changes made are immediately heard while mixing and equalizing a band, even when the console is 100 m away from the stage.
- Combined with the KH7’s Digital Steering technology, S.A.T.© allows the system to be flown completely **STRAIGHT** without the need of a banana curvature to provide continuous, even coverage. Results are maximized with the ability to precisely and independently control each element of the array eliminating noise pollution.
- Undeniable **COMPACTNESS** allows easy transportation, quick setup, minimum clusters’ volume and maximum freedom on where they are hoisted, optimizing logistics, space, labor cost and time.

## ACCESSORIES

KH7-SIGIN, KH7FLYV, KH7FLYH, KH7-BASE, KH7-LINK8



SPECS	
ACOUSTICS	
Power handling	1800 + 800 W
Max Power	4000 W <sup>(1)</sup>
Frequency range (-10 db)	60 Hz – 18 KHz <sup>(2)</sup>
SPL 1W/1mt	101 dB (low) - 118 dB (high) <sup>(3)</sup>
Maximum SPL	141 dB <sup>(4)</sup>
COVERAGE	
Horizontal	100° / 30 ° + digital adjustment
Vertical	30° / 100 ° + digital adjustment
CROSSOVER	
Type	DSP controlled + passive filter
Frequency	1200 HZ
TRANSDUCERS	
4 X 12” coaxial neodymium magnet woofer	
AUDIO IN/OUT	
Analog connectors	1 Male + 1 Female XLR IN/OUT
Digital connectors	1 Female XLR AES/EBU IN
REMOTE CONTROL INPUT	
Connectors	2 x RJ45 ethernet
AMPLIFIER	
Type	1 module class D with PFC - DSP controlled
Nominal Power Output	4 X 2000 W @ 4 Ω 1% THD + NOISE <sup>(5)</sup>
Protections	Over Temp.(Power Limiting – Thermal Shutdown), Short Circuit/Overload Output Protection, Power Limiting, Clip Limiter/Permanent Signal Limiter, High Frequency Protection
Frequency response	20 Hz – 20 kHz (+0 -1 dB) for 1 W @ 8 Ω
Damping factor @ 100 Hz	>10000
THD+N 1kHz,1 W	0.2%
Thermal dissipation	1/4 of max output power @ 4 Ω • @230V = 1123 BTU/h (283 KCal/h) • @115V = 1150 BTU/h (290 KCal/h)
AC POWER	
Nominal power requirements	100 - 240 Vac ± 10% 50/60 Hz
Operating Range	90 – 264 Vac
CONSUMPTION	
Power factor (cos φ)	>0.90 @ 4Ω full power
1/3 rated power (pink noise)@ 4Ω	600 W
CERTIFICATION	
IP	T.B.A.
PHYSICAL	
Dimensions	117 cm x 35 cm x20 cm (46.06” x 13.78” x 7.87”)
Weight	52 Kg (114.64 lb)

Notes for data  
1. Maximum RMS applicable power for a musical signal. The reference signal is the one proposed by EIAJ standard  
2. With dedicated preset;  
3. Measured @4 mt then scaled @1 mt.  
4. Measured with musical signal  
5. EIAJ Test Standard, 10Hz, 1%THD  
New materials and design are introduced into existing products without previous notice. Present systems may differ in some respects from those presented in this catalogue.



# **KH8**

Digital steerable touring system  
with slim array technology

The next generation of touring line array speakers



**FIRENZE**

S.A.T.



SlimArrayTechnology





Groupies guaranteed


Thin and lightweight, Slim Array Technology is our trademark.  
Exceptionally quick to set up.  
Digitally optimized coverage for a smoother, powerful sound



# KH8

Ultra-thin PA System and line-array element

## DIGITAL STEERING

The KH8 is one of the most compact touring line array speakers with  **SlimArrayTechnology** (S.A.T ©), fully controlled by 8 onboard DSPs for maximum operational flexibility. The KH8 features some of the most sophisticated and hyper detailed **DIGITAL STEERING** capabilities that allow the user to direct the sound in a targeted area or to get the maximum uniformity with better coverage and higher SPL.

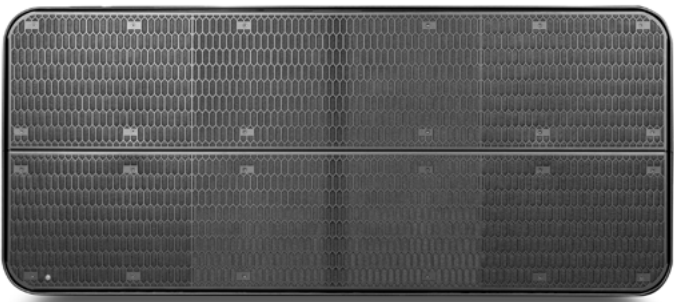
## S.A.T. BENEFITS

- Keeping the stage free of sound pollution thanks to a dispersion in a **HYPER-CARDIOID** figure which maintains the desired directivity with low back emission and minimal side dispersion.
- Better **IMPULSE RESPONSE** and maximum **CLARITY** and **DEFINITION** thanks to the compact design that allows sound to exit instantaneously without resonance, generating a significant amount of sound pressure in the low and low-mid range. Audio technicians who experience it are impressed with how precise any small changes made are immediately heard while mixing and equalizing a band, even when the console is 100 m away from the stage.
- Combined with the KH8’s Digital Steering technology, S.A.T.© allows the system to be flown completely **STRAIGHT** without the need of a banana curvature to provide continuous, even coverage. Results are maximized with the ability to precisely and independently control each element of the array eliminating noise pollution.
- Undeniable **COMPACTNESS** allows easy transportation, quick setup, minimum clusters’ volume and maximum freedom on where they are hoisted, optimizing logistics, space, labor cost and time.



## ACCESSORIES

K8-BOX K8-CASE1, K8-COVER, K8-PWCABLE5, P8-PWCABLE0-6, K8-PWCABLE1-5, K8-PW10, K8PW25, K8-SIG2, K-8SIG10, K8SIG25, K8-SIGIN, K8-SIGOUT, K8-FLY24, KH8-FRAME3, KH8DOLLY3, KH8-DOLLY



## EASY AND QUICK SETUP

The KH8 self-powered speakers are provided in **PRE-CABLE STACKS** of 3 units and you can fly a 24-unit cluster in less than 10 minutes. You need just 2 multi-cables to drive a 6 units cluster: one multi-cable for sending analog, digital and data signals and another one to power the speakers. The state of the art power distro allows you to switch on and off each unit independently. Clusters are always **FLOWN STRAIGHT**, while every single KH8 unit can independently be tilted on its axis in any given moment. Then a dedicated software allows you to design your configuration off site and just sync the system when it’s up and on. Water proof and **WEATHER RESISTENT** frames require no addition maintenance. Just set up and go.

## SPECS

ACOUSTICS	
Speaker power handling	2000 + 800 + 280 W <sup>(4E3)</sup>
Max Power	6160 W <sup>(4E3)</sup>
Frequency range	60 Hz – 18 kHz - 3dB <sup>(1)</sup>
SPL 1W/1mt	102.4 dB (Low) - 99.5 dB (Mid) - 119 dB (High) <sup>(2)</sup>
Maximum SPL	145 dB <sup>(3)</sup>
COVERAGE	
Horizontal	120°
Vertical	Digitally adjustable
CROSSOVER	
Type	DSP controlled
Frequency	300 Hz (Low-Mid) ; 1300 Hz (Mid-High)
TRANSDUCERS	
8 X 8" Neodymium magnet woofer with 2.5" voice coil	
8 X 4" Neodymium magnet woofer with 1.5" voice coil	
4 X 1.4" Neodymium magnet compression driver with 1.5" voice coil	
Remote Control + Audio In/Out	
Connectors	1 Male + 1 Female LK25 connector (IP67)
Connection	1 Analog audio - 2 AES/EBU - Remote control over IP
POWER INPUT	
Connector	1 x PowerCon TRUE1 (IP65)
AMPLIFIER	
Type	2 module class D with PFC - DSP controlled
Nominal output power	8 X 2000 W @ 4 Ω 1% THD + NOISE <sup>(4)</sup>
Protection	Over Temp.(Power Limiting – Thermal Shutdown), Short Circuit/Overload Output Protection, Power Limiting, Clip Limiter/Permanent Signal Limiter, High Frequency Protection
Frequency response	20 Hz – 20 kHz (+0 -1 dB) for 1 W @ 8 Ω
Damping factor 100 Hz	> 10000
THD+N 1W to Full Power @ 4 Ohm	0.2%
Thermal dissipation	1/4 of max output power @ 4 Ω = 2000 BTU/h (595Kcal/h)
AC POWER	
Nominal voltage	100 / 240 ± 10%, 50/60Hz with PFC
Operating range	85 – 265 Vac
CONSUMPTION	
Efficiency	> 75% (typical)
1/8 rated power (pink noise) @ 4 Ω per channel	1250 W
IP CERTIFICATION	
Electronics	65
Speaker box	45
PHYSICAL	
Dimensions	117 cm x 50 cm x 20 cm (46.10" x 19.70" x 7.88")
Weight	72.5 Kg (159.84 lb)

Notes for data  
1. With dedicated preset  
2. Measured @ 4m then scaled @1m  
3. Measured with musical signal  
4. EIAJ Test Standard, 1 kHz, 1% THD (single ch driven)  
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Each unit is equipped with a powerful DSP to meet any demanding setup requirement.

The dedicated software eliminates the need for additional external processors to control the system's tuning and monitoring.

Exceptionally quick to set up. Digitally optimized coverage for a smoother, powerful sound

The IPAL® technology allows to correct the intrinsic uncertainties of the acoustical system in real time for state of the art performances.  
System linearity is guaranteed by a feedback correction based on a differential pressure control method.





# KS8

Straight line-array subwoofer element

KS8, is a compact, self-powered, weather resistant subwoofer element providing an exceptional peak output of 148 dB SPL, with dynamic set up options for optimum delay calibration.

KS8 features IPAL® driver and amplifier technology, including a powerful amplifier module, a differential pressure sensing device, a “zero latency” DSP and two 21” specifically designed high efficiency transducers. The IPAL® technology allows to correct the intrinsic uncertainties of the acoustical system in real time for state of the art performances. System linearity is guaranteed by a feedback correction based on a differential pressure control method. The integrated DSP ensures an astonishing 10 µs (microseconds) latency on the critical feedback paths allowing “analog type” feedback approach with the flexibility of a DSP core.

The KS8 subwoofers are also integrated in the aiming and design software to give endless possibilities of configuration for example; carded or virtual arcs and whatever the venue will require.

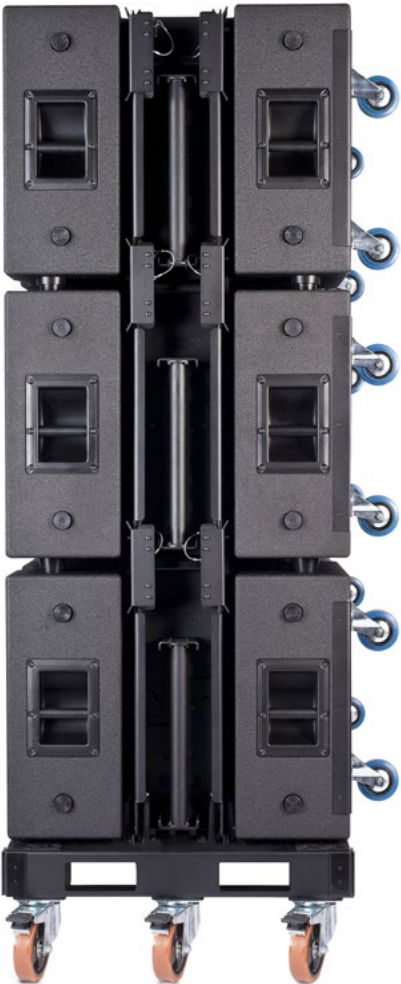
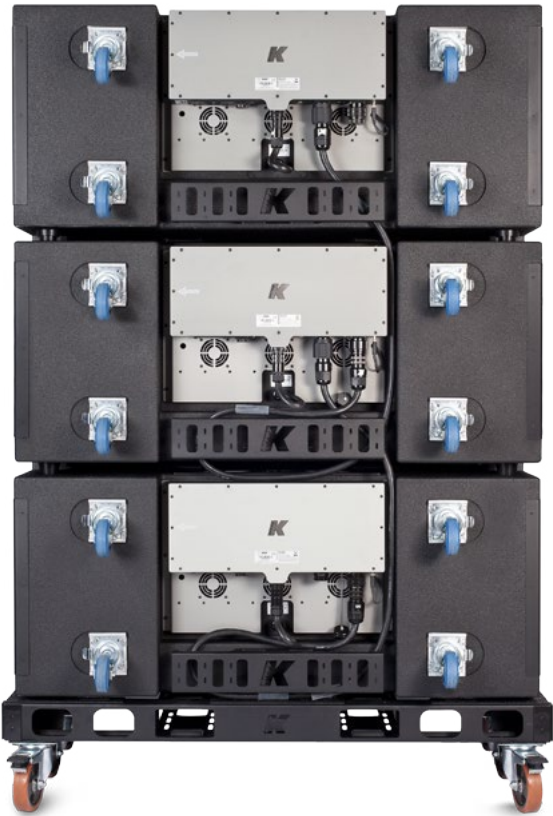


## SPECS

ACOUSTICS	
Speaker power handling	4500 W <sup>(AES)</sup>
Max Power	9000 W <sup>(AES)</sup>
Frequency range	25 Hz – 150 Hz <sup>(1)</sup>
SPL 1W/1mt	101 dB <sup>(2)</sup>
Maximum SPL	148 dB <sup>(3)</sup>
COVERAGE	
Digitally adjustable in array configurations	
TRANSDUCERS	
2 X 21” Neodymium magnet woofer with 5.31” voice coil	
REMOTE CONTROL + AUDIO IN/OUT	
Connectors	1 Male + 1 Female LK25 connector (IP67)
Connection	1 Analog audio - 2 AES/EBU - Remote control over IP
POWER IN/OUT	
Connectors	1 PowerCon TRUE1 (IP67)
AMPLIFIER	
Type	Switch mode fixed frequency PFC power supply IPAL mode
Peak Output Power	8500 W <sup>(4)</sup>
Protection	Excursion limiter, current & power limiter, current clamp, clip limiter, Brownout limiter, thermal
AC POWER	
Nominal voltage	100 - 240 Vac ± 10%, 50/60 Hz with PFC
Operating range	85 – 265 Vac
CONSUMPTION	
Efficiency	95% (typical)
1/s rated power (pink noise)	400 VA
IP CERTIFICATION	
Electronics	65
Speaker box	45
PHYSICAL	
Dimensions	142 cm x 60 (+5) <sup>(5)</sup> cm x 77 (+13.5) <sup>(6)</sup> cm (55.90” x 23.62” (+1.97”) <sup>(5)</sup> x 30.31” (+5.31”) <sup>(6)</sup>
Weight	148 kg (326.28 lb)
Notes for data	
1. With dedicated preset	
2. Measured @ 4m then scaled @1m	
3. Measured with musical signal	
4. Max RMS power	
5. Removable rubber feet	
6. Removable castor wheels	
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## ACCESSORIES

K8-BOX, K8-CASE1, K8-COVER, K8-PWCABLE5, P8-PWCABLE0-6, K8-PWCABLE1-5, K8-PW10, K8PW25, K8-SIG2, K-8SIG10, K8SIG25, K8-SIGIN, K8-SIGOUT, K8-FLY24, KS8-DOLLY, KS8PWBOX3



Firenze series KS8





# ***KH8-SYS12***

Digitally steerable touring system  
with slim array technology

The KH8 Firenze system is a new line array concept that offers a unique solution for demanding tour applications, large-scale productions and live events.

The Firenze package comprises of 12 KH8 and 6 KS8 plus accompanying KH8-FLY24, KH8-FRAME3, KH8/KS8-DOLLY, Flycases, Signal boxes and cables.

**FIRENZE**

S.A.T.



SlimArrayTechnology



# KH8-SYS12

Digitally steerable touring system with slim array technology

K-array offer a full-service sound reinforcement Firenze package for every demanding tour and live event.

The Firenze package comprises of 12 KH8 and 6 KS8 plus accompanying KH8-FLY24, KH8-FRAME3, KH8/KS8-DOLLY, Flycases, Signal boxes and cables. Everything you need for a World class sound experience. The package is complete with 2 day training courses and 1 day project assistance on site from a K-array specialist.

For more information about the Firenze Package contact our Sales team in your area.



KH8 straight cluster

“The Firenze system is a new approach that’s built with the best components our industry offers. Combine that with Italian innovation, and the KH8 system declares itself a front runner. It’s controllable, incredibly musical sounding and responsive.”



KS8 Dolly



ACCESSORIES

K8-BOX K8-CASE1, K8-COVER, K8-PWCABLE5, P8-PWCABLE0-6, K8-PWCABLE1-5, K8-PW10, K8PW25, K8-SIG2, K-8SIG10, K8SIG25, K8-SIGIN, K8-SIGOUT, KH8-FLY24, KH8-FRAME3, KH8DOLLY3, KH8-DOLLY, KS8-DOLLY, KS8PWBOX3



K8-CASE1



KH8 box



K8-FLY24  
Bumper for up to 24 KH8



KS8 DOLLY



KH8-DOLLY3


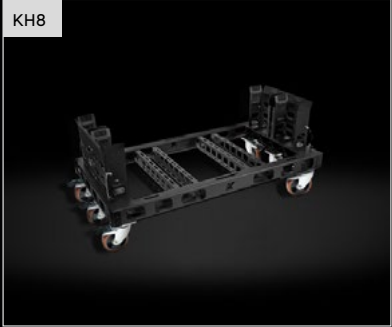
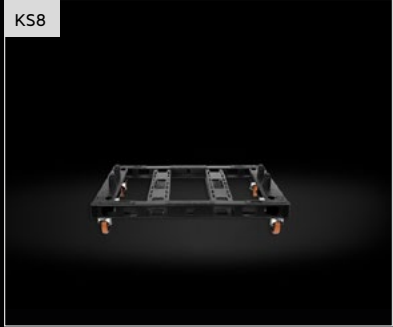




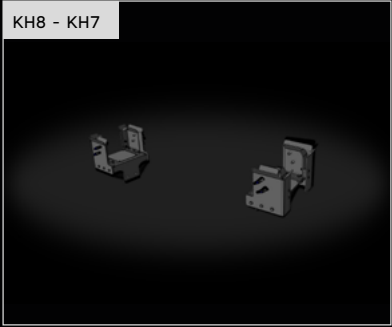




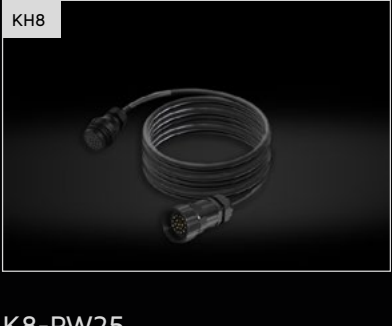


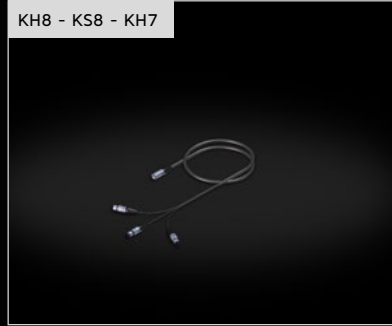




The Firenze KH8-SYS12 package comprises of 12 KH8 and 6 KS8 plus accompanying KH8-FLY24, KH8-FRAME3, KH8/KS8-DOLLY, Flycases, Signal boxes and cables.



Accessories

 <div>KH8 - KS8</div>	 <div>KH8</div>	 <div>KS8</div>	 <div>KS8</div>	 <div>KH7</div>	 <div>KH7</div>
K8-FLY24	KH8-DOLLY / KH8-DOLLY3	KS8-DOLLY	KS8-PWBOX3	KH7- FLYH	KH7- FLYV
Bumper for up to 24 KH8	Dolly for 6 or 3 KH8	Dolly for 3 KS8	Multi cable power splitter for up to 3 KS8	Bumper for up to 12 KH7 in horizontal cluster	Bumper for up to 7 KH7 in vertical cluster
 <div>KH7</div>	 <div>KH8 - KH7</div>	 <div>KH8 - KS8</div>	 <div>KH8 - KS8</div>	 <div>KH8 - KS8</div>	 <div>KH8 - KS8 - KH7</div>
KH7-BASE	KH7-LINKH8	K8-BOX	K8-CASE1	K8-COVER	K8-PWCABLE5 K8-PWCABLE01-5 K8-PWCABLE50-6
Base for up to 2 KH7 in vertical or 3 KH7 in horizontal	Hardware link to connect KH7 under KH8	Power, signals and control box for up to 12 KH8/KS8	Flycase for KH8 and KS8 cables	Semi-rigid cover for KH8-DOLLY and KS8-DOLLY	PowerconTrue male-female (5m, 1.5m, 0.6m)
 <div>KH8</div>	 <div>KH8</div>	 <div>KH8 - KS8 - KH7</div>	 <div>KH8 - KS8 - KH7</div>		
K8-PW25 K8-PW10	K8-PWCABLE5 K8-PWCABLE01-5 K8-PWCABLE50-6	K8-SIGIN	KH7-SIGIN		
Multi-cable power (25m, 10m)	PowerconTrue male-female 1-5m cable	2m with IN LK25 and OUT XLR+RJ45	2m with IN LK25 and OUT 1 RJ45		



[www.k-array.com](http://www.k-array.com)



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