

K&F IX Series



- 4- and 8-channel networked DSP amplifiers with 6 kW, 3 kW and 1.5 kW powerTANK for Hi-Z and Lo-Z operations in 1 U
- For operating all K&F loudspeakers
- 8 (4) x high quality microphone/line level inputs with switchable 48V phantom power
- 8 Dante inputs and 8 Dante output channels: direct outs, mix outs, amp outputs
- 96 kHz fully featured DSP with input processing, 16x16 (12x12) matrix mixer, dynamics, FIR-Drive, FX
- ghostPOWER via POE maintains DSP, Dante network and mic/line inputs independent of mains power
- ecoRAIL technology for significant energy savings
- State-of-the-art supervision and protection packages derived from flagship IPX series
- MXE-style TaskEngine for system integration, automation and control

The IX Series is the versatile multi-tool for modern installations, delivering outstanding performance in both high-Z and low-Z applications. These compact 1U amplifiers offer up to 6,000 W of power, a fully featured 96 kHz DSP with matrix mixer, FIR-Drive, and Dante break-in for maximum flexibility. Innovative technologies such as ecoRAIL, ghostPOWER and powerTANK ensure exceptional efficiency and reliability. Full integration into the SONICUE ecosystem makes the IX Series a smart all-in-one solution for scalable, future-ready installations.

	K&F IX60:8	K&F IX60:4	K&F IX30:8	K&F IX30:4	K&F IX15:4
Total power	6,000 W	6,000 W	3,000 W	3,000 W	1,500 W
Amp channels	8	4	8	4	4
Mic/Line inputs	8	4	8	4	4
Dante channels	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8
Power all channels 4Ω	8 x 600 W	4 x 1,500 W	8 x 375 W	4 x 600 W	4 x 375 W
Power all channels 8Ω/100V	8 x 750 W	4 x 1,200 W	8 x 375 W	4 x 750 W	4 x 375 W
Max. output power (single channel)	1,000 W	1,800 W	1,000 W	1,000 W	1,000 W

Further information and data like specifications, manuals, technical drawings as DWG, DXF and PDF files as well as data files for acoustic simulations with Ease and Ulysses are available on our web site www.kling-freitag.de

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K&F IX Series

OUTPUT POWER	K&F IX60:8	K&F IX30:8	K&F IX60:4	K&F IX30:4	K&F IX15:4
Total rated output power ¹	6,000 W	3,000 W	6,000 W	3,000 W	1,500 W
Number of amplifier channels	8	8	4	4	4

K&F IX60:8

Load	2 Ω	2,7 Ω	4 Ω	8 Ω
Maximum Output Power ¹				
All channels equally driven	750 W	750 W	600 W	750 W
Max. per channel	1,000 W	800 W	600 W	1,000 W
Bridge	1,000 W	1,300 W	1,500 W	1,200 W

Direct Drive

	70 V	100 V
Maximum Output Power ¹		
All channels equally driven	750 W	750 W
Max. per channel	750 W	1,000 W

K&F IX30:8

Load	2 Ω	2,7 Ω	4 Ω	8 Ω
Maximum Output Power ¹				
All channels equally driven	375 W	375 W	375 W	375 W
Max. per channel	1,000 W	800 W	600 W	1,000 W
Bridge	750 W	750 W	750 W	750 W

Direct Drive

	70 V	100 V
Maximum Output Power ¹		
All channels equally driven	375 W	375 W
Max. per channel	750 W	1,000 W

K&F IX60:4

Load	2 Ω	2,7 Ω	4 Ω	8 Ω
Maximum Output Power ¹				
All channels equally driven	1,000 W	1,300 W	1,500 W	1,200 W
Max. per channel	1,000 W	1,300 W	1,800 W	1,200 W

Direct Drive

	70 V	100 V
Maximum Output Power ¹		
All channels equally driven	1,500 W	1,500 W
Max. per channel	1,500 W	1,800 W

K&F IX30:4

Load	2 Ω	2,7 Ω	4 Ω	8 Ω
Maximum Output Power ¹				
All channels equally driven	750 W	750 W	600 W	750 W
Max. per channel	1,000 W	800 W	600 W	1,000 W
Bridge	1,000 W	1,300 W	1,500 W	1,200 W

Direct Drive

	70 V	100 V
Maximum Output Power ¹		
All channels equally driven	750 W	750 W
Max. per channel	750 W	1,000 W

K&F IX Series



K&F IX15:4

Load	2 Ω	2,7 Ω	4 Ω	8 Ω
Maximum Output Power ¹				
All channels equally driven	375 W	375 W	375 W	375 W
Max. per channel	1,000 W	800 W	600 W	1,000 W
Bridge	750 W	750 W	750 W	750 W

Direct Drive

70 V

100 V

Maximum Output Power ¹

All channels equally driven	375 W	375 W
Max. per channel	750 W	1,000 W

¹ Test signal for max. output power according IHFA-202 (Dynamic-Headroom, burst 1 kHz / 20 ms on / 480 ms off / low level -20 dB)

	K&F IX60:8	K&F IX30:8	K&F IX60:4	K&F IX30:4	K&F IX15:4
Maximum Output Voltage, Hi-Z/4 -16 Ω mode, per channel ²	145 V Peak	145 V Peak	145 V Peak	145 V Peak	145 V Peak
Maximum Output Current, Lo-Z/2 - 4 Ω mode, per channel ²	33 A Peak	33 A Peak	33 A Peak	33 A Peak	33 A Peak

² No mode selection on IX60:4

AMPLIFIER	K&F IX60:8	K&F IX30:8	K&F IX60:4	K&F IX30:4	K&F IX15:4
Voltage Gain Low-Z mode, ref. 1 kHz	32 dB, adjustable 20,0 – 44,0 dB				
Input sensitivity Direct Drive mode	+6 dBu (1,55 V), fixed				
THD+N 3 dB below max, AES17, 1 kHz	< 0,1 %				
Crosstalk ref. 1 kHz, 12 dB below max, 8 Ω	< -80 dB				
Frequency Response ref. 1 kHz, Analog In to Speaker Out	20 Hz to 20 kHz (±1 dB)				
Damping Factor 20 Hz to 200 Hz, 8 Ω	> 250				
Output Stage Topology	Class D, fixed frequency				
Output Noise					
Analog input (A-weighted, eco mode)	< –67 dBu				
Digital input (A-weighted, eco mode)	< –70 dBu				
Mic/Line Analog Inputs					
Channels	8	8	4	4	4
Gain	0 to 60 dB				
Maximum Input Level (balanced)	+18 dBu				
Maximum Input Level (unbalanced)	+12 dBu				
Phantom power	+48 V, switchable per input				
Input Impedance, active balanced	>10 kΩ				
EIN (A-weighted) @ 150 Ω	–127 dBu				
Reference level equal to digital input	+22 dBu for 0 dBFS				

DIGITAL SIGNAL PROCESSING

Sampling rate	96 kHz internal, Dante 48/96 kHz switchable
Signal delay/latency (Analog In to Speaker Out)	0,77 ms
Signal Processing	
Input processing	HPF 24 dB, 4 filters per channel, selectable as PEQ, Lo-/Hi-Shelv, Lo-/Hi-ShelvQ, Hi-/Lo-Pass and Notch; Noise Gate, Compressor or AGC; input pilot supervision
Mix Matrix	IX60:8 and IX30:8: 16 x 16 matrix mixer with stereo FX IX60:4, IX30:4 and IX15:4: 12 x 12 matrix mixer with stereo FX
User EQ	12 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Lo-ShelvQ, Hi-ShelvQ, Hi-Pass, Lo-Pass and Notch; 2 filters of them with additional asymmetric filter type
User Delay	0 to 2000 ms per channel
Array-EQ	5 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Lo-ShelvQ, Hi-ShelvQ, Hi-Pass, Lo-Pass, and All-Pass
Array-Delay	0 to 500 ms per channel
Speaker FIR	Up to 1025 Taps
Speaker Limiters	Peak Anticipation Limiter and RMS/TEMP Limiter per channel
Load Supervision	Pilot tone up to 30 kHz
Other Functions	Source Selection, Level, Mute, Polarity, Sine and Noise Generator, Pilot Tone Generator and Detection, Level Meters, Impedance Measurement and Load Monitoring
DSP-Presets	1 Factory + 20 User
Source Supervision and Fallback	Pilot Tone supervision at Analog and Dante inputs, switchover to FAILOVER source selection

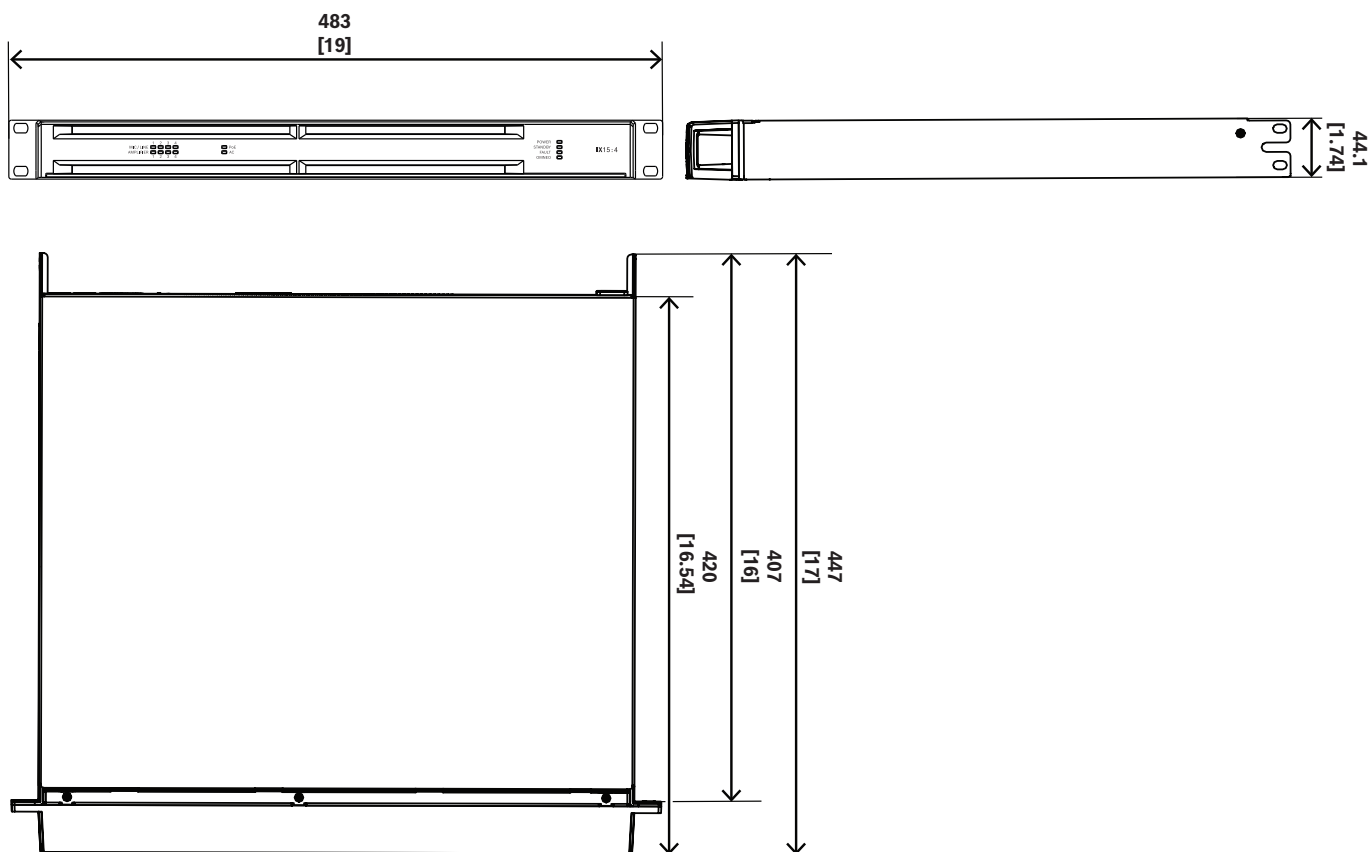
CONNECTIVITY	K&F IX60:8	K&F IX30:8	K&F IX60:4	K&F IX30:4	K&F IX15:4
Mic/Line Input					
Type (Euroblock)	4 x 5-pin, male		2 x 5-pin, male		
Speaker Output					
Type (Euroblock)	2 x 8-pin		2 x 4-pin	1 x 8-pin	
Diameter	2.5 mm ² / 12 AWG		6.0 mm ² / 10 AWG	2.5 mm ² / 12 AWG	
Network					
Type	2x RJ45				
General	1000BASE-T/100BASE-TX, integrated switch				
Redundancy Modes	Glitchfree (PRIMARY/SECONDARY), RSTP				
Backup power supply (ghostPOWER)	1x PoE (IEEE 802.3af) on PRIMARY port				
Network Audio Inputs	8-ch, 48/96 kHz, Dante				
Network Audio Outputs	8-ch, 48/96 kHz, Dante				
Mains Input	1 x IEC C14				
Control Port					
GPIO Control Port	3 x GPIO, switchable Analog In/Digital In/Digital Out				
Type	1 x 8-pin Euroblock, male				
Analog Input Range	0 V to +13 V, 133 kΩ input resistance				
Digital Input Limits	ON: < 1.5 V OFF: > 2.0 V, internal Pull Up (10 kΩ / 10 V)				
Digital Outputs	ON: Output switched to GND, max. 200 mA OFF: Open Collector				
Reference Voltage Output	+10 V, max. 200 mA, supervised, short circuit protected				
READY/FAULT	Galvanic isolated relay, max. 30 VDC/500 mADC				
Front panel indicators	6 x status LEDs (POWER, STANDBY, FAULT, OMNEO, PoE, AC), signal/peak LED per MIC/LINE input and AMPLIFIER output				
Rear panel indicators	2 x status LEDs (INFO, STATUS)				
Rear panel operation	1 x INIT button (recessed)				

K&F IX Series



GENERAL	K&F IX60:8	K&F IX60:4	K&F IX30:8	K&F IX30:4	K&F IX15:4
Power consumption					
Rated power consumption	1,050 W		575 W	550 W	300 W
Idle/Eco mode (output power <1 W)	40 W	34 W	40 W	26 W	
Standby mode	<15 W				
Power Requirements	100 V to 240 V, 50 Hz to 60 Hz AC				
Power Supply Topology	Switching Mode Power Supply with digitally controlled power factor correction (PFC)				
Protections	Audio Limiters, High Temperature, DC, HF, Short Circuit, Back-EMF, Peak Current Limiters, Inrush Current Limiters, Mains Current Limiter, Mains Over-/Under Voltage Protection				
Cooling	Front-to-rear, temperature controlled fans, supervised				
Ambient Temperature Limits	+5 °C to +40 °C (+40 °F to +105 °F)				
IEC Protection Class	Class I (grounded)				
Electromagnetical Environment	E1, E2, E3				
Color	Black				
Dimensions (W x H x D)	483 x 44.1 x 447 mm (19 in x 1.74 in x 17 in)				
Weight	8.8 kg (19.3 lb)	8.6 kg (19 lb)	8.3 kg (18.2 lb)	7.5 kg (16.4 lb)	7 kg (15.4 lb)
Shipping weight	10.7 kg (23.4 lb)	10.5 kg (23.1 lb)	10.2 kg (22.5 lb)	9.3 kg (20.5 lb)	8.9 kg (19.5 lb)

Amplifier at rated conditions, Lo-Z/2 - 4 Ω normal operation mode, all channels driven, 4 Ω loads, analog input, 32 dB Gain, unless otherwise specified.



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