



ISA Series

Professional Power Amplifiers

ISA280 | ISA450 | ISA750 | ISA1350 | ISA300Ti | ISA500Ti | ISA800Ti



The ISA Installed System Amplifiers are designed to meet the needs of sound system designers and contractors worldwide. Three models feature isolated 25, 70, and 100 volt outputs for distributed sound systems, while four low impedance models are rated for 2 ohm operation. The ISA 1350 drives 70 volt lines directly with 1500 watts per channel. Versatile loading options and a comprehensive set of features make the ISA Series a rugged, cost-effective power solution for any permanently installed sound system.

ISA Power Amplifiers

Model	70V*	Watts per channel		
		8 Ω **	4 Ω **	2 Ω †
ISA280	–	185	280	430
ISA450	–	260	425	700
ISA750	–	450	650	1200
ISA1350	1500††	800	1300	2000
ISA300Ti	300	185	280	430
ISA500Ti	500	260	425	700
ISA800Ti	800	450	650	1200

* 50 Hz – 16 kHz, 0.5% THD

** 20 Hz – 20 kHz, 0.1% THD

† 1 kHz, 1% THD

†† Direct Output, 70V, less than 0.5% THD, 20 - 20 kHz

THX is a trademark of THX Ltd.

Features

- Four models for low impedance applications
- ISA1350 drives 70 volt lines directly with 1500 watts per channel
- Three "Ti" versions include low impedance and isolated 25, 70, and 100 volt outputs for distributed audio systems
- ISA450 and ISA750: THX™ approved for professional cinema applications
- Rear panel gain controls for tamper resistant operation with 2 dB detents for quick and repeatable settings
- XLR and detachable Euro style input connectors
- DataPort V2 for use with DPV2 compatible signal processing accessories (XC-3, SF-3, LF-3) and DSP-3/DSP-4 (with external power supply)
- Independent defeatable clip limiters for reduced distortion
- Selectable high-pass filters protect speakers and prevent speaker transformer saturation with minimal effect on program material (30 Hz or 70 Hz on non-"Ti" models, 50 Hz or 75 Hz on "Ti" models)
- Class H complementary bipolar output circuitry reduces AC power draw and waste heat by 40% on ISA750 and ISA800Ti, and by 50% on ISA1350
- Front panel indicators include power, signal, and clip (and protect on ISA1350)
- Covered barrier strip output connectors for safety agency compliance
- Automatic variable-speed fan for quiet normal operation with maximum cooling on demand
- Rear-to-front air flow keeps equipment racks cool
- Stereo, bridge, or parallel operating modes
- Comprehensive protection circuitry including DC, infrasonic, thermal overload, and short circuit protection
- 3 year warranty plus optional 3 year extended service contract

"Ti" Models

- Isolated 25, 70, 100 volt, and low impedance outputs available simultaneously
- Simple barrier strip connection determines output mode
- "Ti" models have fully isolated 25, 70, and 100 volt outputs

ISA Series

Specifications

	ISA280	ISA450	ISA750	ISA1350	ISA300Ti	ISA500Ti	ISA800Ti
Stereo Mode (both channels driven)	Continuous average output power per channel						
8Ω / 20 Hz - 20 kHz / 0.1% THD	185 W	260 W	450 W	800 W	185 W	260 W	450 W
4Ω / 20 Hz - 20 kHz / 0.1% THD	280 W	425 W	650 W	1300 W	280 W	425 W	650 W
2Ω / 1 kHz / 1% THD	430 W	700 W	1200 W	2000 W	430 W	700 W	1200 W
Direct Output, Stereo Mode							
70V / 20 Hz - 20 kHz / +0,-0.3 dB / 0.5% THD	—	—	—	1500 W	—	—	—
XF Output Power, Stereo Mode							
70V or 100V / 50 Hz - 16 kHz / 0.5% THD	—	—	—	—	300 W	500 W	800 W
25V / 50 Hz - 16 kHz / 0.5% THD	—	—	—	—	200 W	300 W	500 W
Bridge Mono Mode	Continuous average output power						
8Ω / 1 kHz / 0.1% THD	600 W	900 W	1500 W	2800 W	600 W	900 W	1500 W
4Ω / 1 kHz / 1% THD	830 W	1400 W	2400 W	4000 W	830 W	1400 W	2400 W
XF Output Power, Bridge Mono Mode							
140V or 200V / 50Hz - 16 kHz / 0.5% THD	—	—	—	—	600 W	1000 W	1600 W
Signal to Noise (20 Hz - 20 kHz)	100 dB	100 dB	100 dB	100 dB	100 dB	100 dB	100 dB
Distortion (SMPTE-IM)	< 0.01%	< 0.01%	< 0.02%	< 0.01%	< 0.01%	< 0.01%	< 0.02%
Input Sensitivity at 8Ω	1.15V (+3.4 dBu)	1.07V (+2.8 dBu)	1.07V (+2.8 dBu)	1.24V (+4.1 dBu)	1.15V (+3.4 dBu)	1.07V (+2.8 dBu)	1.07V (+2.8 dBu)
Gain at 8Ω	33.4x (30.5 dB)	44.7x (33 dB)	56.2x (35 dB)	64.0x (36.1 dB)	33.4x (30.5 dB)	44.7x (33 dB)	56.2x (35 dB)
Output Circuitry	AB	AB	Class H, 2-tier	Class H, 3-tier	AB	AB	Class H, 2-tier
Distortion (typical)							
20 Hz - 20 kHz: 10 dB below rated power	< 0.03% THD / 4Ω and 8Ω						
1.0 kHz and below: full rated power	< 0.03% THD / 4Ω and 8Ω						
Frequency Response (10 dB below rated output power)	ISA280, ISA450, ISA750 and ISA1350: 20 Hz-20 kHz, +0/-1 dB -3 dB points, 5 Hz and 50 kHz ISA300Ti, ISA500Ti, ISA800Ti Direct outputs: -3 dB at 50 Hz, -0.5 dB at 20 kHz XF outputs: 50 Hz - 16 kHz, +0/-3 dB						
Damping Factor (direct outputs)	> 200 at 8Ω / ISA1350: > 250						
Output Regulation (isolated outputs)	< 1.5 dB						
Input Impedance	10k ohms unbalanced, 20k ohms balanced						
Input Clipping	10 Vrms (+22 dBu) / ISA1350: 4.53 Vrms (+15.3 dBu)						
Cooling	Continuously variable speed fan, back-to-front air flow						
Connectors	Input: Active balanced, 3-pin euro style detachable terminal block and XLR (pin 2+) Output: Covered barrier strips, DataPort V2 / HD-15 connector						
Controls	Front: AC switch Rear: Ch. 1 & 2 gain knobs / 10-position DIP switch						
Indicators	Power-On: Green LED Signal: Green LED (1 per channel) Protect: Red LED (ISA 1350) Clip: Red LED (1 per channel)						
Amplifier Protection	Full short circuit, open circuit, thermal, ultrasonic, and RF protection. Stable into reactive or mismatched loads						
Load Protection	On/off muting Triac crowbar: ISA750, ISA1350 and ISA800Ti AC coupling: ISA280, ISA300Ti, ISA450, ISA500Ti						
Dimensions (HWD)	5.25" (13.3 cm) 3 rack spaces x 19" (48.3 cm) rack mounting x 15.9" (40 cm) deep from front mounting rails						
Weight							
Net	36 lbs (16.3 kg)	42 lbs (19 kg)	47 lbs (21.3 kg)	68 lbs (30.8 kg)	44 lbs (20.0 kg)	49 lbs (22.3 kg)	57 lbs (26 kg)
Shipping	42 lbs (19.1 kg)	48 lbs (22 kg)	53 lbs (24.0 kg)	77 lbs (34.4 kg)	50 lbs (22.7 kg)	55 lbs (25 kg)	63 lbs (28.6 kg)
Power Requirements	100, 120, 230 VAC, 50 - 60 Hz						

Specifications subject to change without notice.