

NXE3.04
 NXE3.02
 NXE1.54
 NXE1.52
 NXE8004
 NXE8002
 NXE4004
 NXE4002



NXE SERIES

POWER AMPLIFIERS W/ PROGRAMMABLE OUTPUTS AND ETHERNET CONTROL

Ashly's new line of nX Power Amplifiers feature lightweight, energy-efficient Class-D switching amplifier technology combined with a switch mode power supply. nX amplifiers are available in three product families (nX, nXe, nXp) and are designed to meet the most demanding live sound and fixed installation sound systems in stadiums, arenas, performance venues, worship spaces and convention centers.

The nXe Series is available in either 2 or 4-channel models. Use rear panel DIP switches to program each channel output for either High-Z (70V or 100V Constant Voltage) or Low-Z (stable down to 2 Ohms) operation. When in Sleep Mode, the nX amplifiers draw less than 1 Watt.

nXe is networkable with Ethernet control. It also has serial data control, aux preamp outputs, instant standby mode, preset recall, fault condition logic outputs, and optional network audio and digital audio capability. All controlled using our Protea™ Software Suite.

nXe Series Features:

- 2 and 4-channel high-output, lightweight amplifiers with programmable output on each channel (High-Z or Low-Z, selected via rear panel DIP switches)
- Power-saving, Energy Management System[†] (Ashly EMS™) automatic <1W sleep-mode (defeatable)
- Front panel power switch and level controls (can be disabled for security)
- Rear panel DIP switches per channel for selection of high pass filter, limiter, input gain, and High-Z or Low-Z speaker output configuration
- Remote DC level control on each input channel

- Switch mode power supply automatically detects 120V or 240V AC operation
- Extensive protection circuitry, continuously variable cooling fans
- Multiple independent internal power supplies provide increased channel separation and reliability
- Ethernet port for use with control and monitoring of amplifier functions, with front panel COM activity LED
- Serial data port for use with Ashly remote control devices, or optional RS-232 converter for third party controllers (INA-1)
- Use Protea™ Software to remotely disable all front panel controls, including the on/off switch, for a tamper-proof installation
- Real-Time Clock with Event Scheduler
- Instant Standby Mode, 30% reduction in power consumption with on/off triggered by contact closure, software control, or event scheduler
- Programmable power-on delay
- Preset recall via contact closure, software control, remote control, or event scheduler
- Aux preamp outputs, and fault condition logic outputs
- Optional Cobranet® or Dante® network audio and AES3 digital audio input with pass-through
- Neutrik® Combo XLR – 1/4" TRS jack plus Euroblock input connectors
- Neutrik® speakON® twist locking loud-speaker connectors for security, safety, and reliability
- Neutrik® powerCON® detachable AC mains connector

3000 & 1500 Watt Models

800 & 400 Watt Models

| nXe Series | nXe 3.04 | nXe 3.02 | nXe 1.54 | nXe 1.52 | nXe 8004 | nXe 8002 | nXe 4004 | nXe 4002 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Channels | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 |
| <i>*Max Output Power: Measured in Watts, Per Channel, Low-Z Output, All Channels Driven</i> | | | | | | | | |
| 2 Ohms | 3,000 | 3,000 | 1,500 | 1,500 | 800 | 800 | 400 | 400 |
| 4 Ohms | 2,000 | 2,000 | 1,500 | 1,500 | 800 | 800 | 400 | 400 |
| 8 Ohms | 1,250 | 1,250 | 1,250 | 1,250 | 800 | 800 | 400 | 400 |
| <i>*Low Z Output: Measured in Watts, Bridge Mode, All Channels Driven</i> | | | | | | | | |
| 4 Ohms | 6,000 | 6,000 | 3,000 | 3,000 | 1600 | 1600 | 800 | 800 |
| 8 Ohms | 4,000 | 4,000 | 3,000 | 3,000 | 1600 | 1600 | 800 | 800 |
| <i>*70V, 100V Output: Measured in Watts, All Channels Driven</i> | | | | | | | | |
| 70V (per channel) | 2,450 | 2,450 | 1,500 | 1,500 | 800 | 800 | 400 | 400 |
| 100V (per channel) | 1,250 | 1,250 | 1,250 | 1,250 | 800 | 800 | 400 | 400 |
| <i>Total Power Draw, Measured in Watts, Total for all Channels</i> | | | | | | | | |
| Sleep Mode | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Standby Mode | 70 | 40 | 70 | 40 | 40 | 25 | 40 | 25 |
| Idle (no signal) | 100 | 55 | 100 | 55 | 70 | 40 | 70 | 40 |
| <i>Current Draw: Measured in Amps, Total for all Channels, 120VAC, Divide by 2 for 240V</i> | | | | | | | | |
| Sleep Mode | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Standby Mode | 1.30 | 0.70 | 1.30 | 0.70 | 0.70 | 0.38 | 0.70 | 0.38 |
| Idle (no signal) | 1.85 | 1.00 | 1.85 | 1.00 | 1.30 | 0.70 | 1.30 | 0.70 |
| <i>Max Current Draw: Measured in Amps, Typical Input, All Channels Driven, Divide by 2 for 240V</i> | | | | | | | | |
| ½ Max Power @ 2 Ohms | 29.5 | 14.7 | 16.0 | 8.0 | 8.8 | 4.6 | 5.0 | 2.6 |
| <i>Thermal Dissipation: BTU/hr, Typical Input, Total for all Channels</i> | | | | | | | | |
| Sleep mode | < 3.4 | < 3.4 | < 3.4 | < 3.4 | < 3.4 | < 3.4 | < 3.4 | < 3.4 |
| Standby mode | 238 | 136 | 238 | 136 | 136 | 85 | 136 | 85 |
| Idle (no signal) | 340 | 187 | 340 | 187 | 238 | 136 | 238 | 136 |
| ½ Max Power @ 2 Ohms | 2,720 | 1,360 | 1,700 | 850 | 970 | 495 | 595 | 305 |

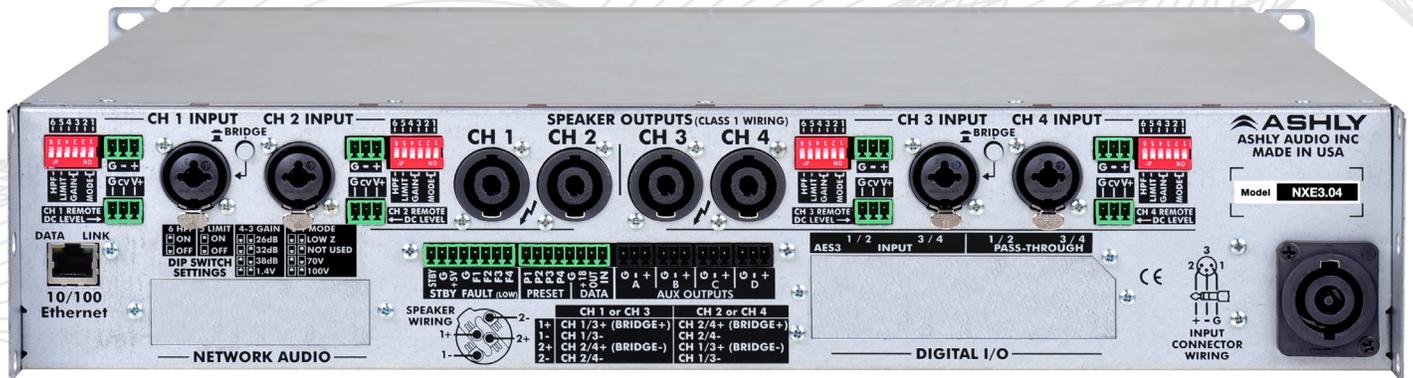
* Measurements based on CEA-2006/490A, 20ms 1kHz 1% THD+N, 480ms 1kHz -20dB.

† <1W sleep mode can be defeated for applications that are subject to third-party performance standards that prohibit a sleep mode, including those used for Mass Notification and Emergency Communication Systems and those subject to ANSI/UL 2572.

Note: When making a true comparison of energy efficiency, one must look at the Thermal Dissipation (BTU/hr) numbers for a product. All other efficiency, i.e. "percentage" numbers are not standards based, and therefore may be marketing hype. Ashly Audio builds highly efficient Class-D amplification with SMPS that will equal or surpass the competition on BTU/hr thermal output (unused energy given off as heat). Please check our published BTU/hr specifications for more information.



nX uses Neutrik®
Components



nXe 3.04 Rear Panel Configuration

| Specifications | Notes: $OdBu = 0.775 VRMS$ |
|--|--|
| Voltage Gain | Selectable at 26dB, 32dB, 38dB, or 1.4V |
| Damping Factor | >250 (8 Ohms load <1kHz) |
| Input High Pass Filter | 80Hz 2nd order |
| Distortion (SMPTE, typical) | <0.5% |
| Distortion (THD-N, typical) | <0.5% (8 Ohms, 10dB below rated power, 20Hz–20kHz) |
| Channel Separation | -75dB (dB from full output, 1kHz) |
| Signal-to-Noise (20Hz–20kHz, unweighted) | >114dB (all 3.0x models) >111dB (all 1.5x models) >108dB (all 800x models) >105dB (all 400x models) |
| Frequency Response | 20Hz–20kHz, +/-0.05dB |
| Balanced Input Connector | Euroblock 3.5mm, 1/4" TRS and XLR Combo jack |
| Input Impedance | 10k Ohms |
| Maximum Input Level | +21dBu |
| Speaker Output Connector | Neutrik® speakON® |
| Control Network | Compatible w/ standard 100MB Ethernet |
| AUX Output Connector | Balanced Euroblock 3.5mm |
| AUX Output Maximum Level | +21dBu |
| Remote Standby Contact Closure | Euroblock 3.5mm, close contact to GND for standby mode |
| Preset Recall Contact Closure | Euroblock 3.5mm, close contact to GND for preset 1-4 recall |
| Data Connection | Euroblock 3.5mm - Gnd, +18V, In, Out |
| Fault Condition Logic Outputs | Euroblock 3.5mm - 4 available |
| Remote DC Level Control | Euroblock 3.5mm - Gnd, CV, V+ per input |
| Attenuators (per channel) | Front panel, software, offset link group, and remote. Fully off = Mute |
| Amplifier Protection | Inrush current limitation, temperature monitoring, output over-power protection, mains fuses |
| Cooling | Continuously variable temperature controlled axial fan(s) |
| Environmental | 32–113 deg F, (0–45 deg, C) (noncondensing) |

| Front Panel LED Indicators | |
|----------------------------|---|
| White LED | |
| POWER | Switch: On, Off, Standby (flashing) |
| Red LED | |
| CLIP/MUTE | Per Channel: Clip @ 1dB below full output / Mute |
| PROTECT | On (fault condition or shut down), Off |
| Green LED | |
| SIGNAL | Per Channel: -18dB below rated output |
| BRIDGE | Per Channel Pair: On, Off |
| COM | On, for Ethernet data or Device ID |
| CURRENT | Per Channel: Proportional to output |
| Yellow LED | |
| TEMP | Per Channel: On dim at 90% max operating temperature, full bright + protect at 100% |
| SLEEP | On, amplifier is asleep from audio inactivity |
| DISABLE | On, power switch & front panel attenuators are disabled |

| Weights and Dimensions | |
|------------------------------|--|
| Unit Weight | 1.54/3.04: 28.7lbs (13kg) 1.52/3.02: 22.7lbs (10.3kg) 4002/8002: 22.2lbs (10.1kg) 4004/8004: 25.9lbs (11.7kg) |
| Shipping Weight | 1.54/3.04: 35.2lbs (16kg) 1.52/3.02: 29.2lbs (13.3kg) 4002/8002: 28.7lbs (13.1kg) 4004/8004: 32.4lbs (14.8kg) |
| Unit Dimensions (all models) | 19"W x 3.5"H x 16.84"D (483mm x 89mm x 428mm) |
| Shipping Dimensions | 24.5"W x 22"H x 5.25"D (622mm x 559mm x 133mm) |

| Power Requirements (@ 50/60Hz) | | |
|----------------------------------|--|------------|
| Nominal (Automatic Sensing SMPS) | 120VAC | 240VAC |
| Operating Range | 70–135VAC | 140–270VAC |
| Minimum power-up | 85VAC | 170VAC |
| Power Cable Connector | 20A powerCON® (32A powerCON® 3.04 model only) | |

| Digital Input Options (Factory installed w/ DAC4 Converter) | |
|---|--|
| OPAES2 | 2-Ch AES3 Input w/ AES3 pass-thru |
| OPAES4 | 4-Ch AES3 Input w/ AES3 pass-thru |
| CNM-2 | CobraNet® Digital Interface |
| OPDante | Dante® Digital Interface |
| OPAVB | AVB Digital Interface (in development) |

| Remote Accessories | |
|--------------------|---|
| WR-1 | 2-Channel Level Control |
| WR-1.5 | Level and Preset Recall |
| WR-2 | Four-Position Switch |
| WR-5* | Programmable Button Controller |
| neWR-5* | Programmable Network Button Controller |
| FR-8 | 8-Channel Network Fader Remote |
| FR-16 | 16-Channel Network Fader Remote |
| Ashly Remote* | Remote Control Application for Apple® iPad® |

*Function is limited to Mute and Preset Recall

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