

**XⁿFAN ARRAY
AIRFLOW
TECHNOLOGY
REFINED**



XNRGY.COM





XNRGY Climate Systems is delighted to present the **XⁿFan Array**, featuring multiple **XⁿFans** arranged in a matrix. Tailored for air handling systems, the **XⁿFan Array** integrates cutting-edge technology in fan design, array configuration, control, and flexibility. This advanced fan array is a testament to **XNRGY**'s extensive history of innovation and product development, showcasing their commitment to delivering top-tier solutions.



300+
Industry Professionals

WE ARE **EXPERTS** ON **FAN ARRAY** TECHNOLOGY

Over the past decade, fan array has become very popular compared to conventional plenum fans and engineers have shown more and more interest in using fan array for various applications for the following reasons:

- Uniform air distribution
- Smaller footprint
- Redundancy (N-1)
- High-system efficiency
- Ease of maintenance
- Lower noise level
- Flexible configuration

Our main effort is to offer the most efficient and cost-effective fan array in this competitive market.

KEY FEATURES

HIGHEST SYSTEM EFFICIENCY IN THE MARKET

Unlike other manufacturers who purchase standard off-the-shelf fans the **XⁿFan** is specifically designed to operate in an array. All aspects of the design, including motor and drive selections, work seamlessly with the fan to provide the highest efficiency, lowest noise and lowest vibration in the industry. All fan arrays can be configured for N-1 redundancy or higher.

GREATEST FLEXIBILITY AND MOST COMPACT DESIGN

XⁿFan is available in steel or aluminum, in sizes ranging from 14 to 39 inches, with pressure capacity of up to 12 inches w.g. Each fan size is available as an array to meet virtually any air flow requirement at the highest efficiency possible. This is especially important in low-pressure, high-volume applications, such as those found in data centers and high-efficiency buildings. Motor choices include premium efficiency induction, permanent magnet or ECM and mswitched reluctance.

Unlike other manufacturers who use conventional welded fan frames, the **XⁿFan Array** uses a unique framing design that provides the greatest flexibility and strength on the market. The ease of assembly and precise fit of each component results in a system that can be fully customized to meet the needs of each project.

All fan frames are designed to have the smallest footprint possible in height, width, and airway length. Frames are built using structural sections with stainless steel connectors, including powder coated steel and stainless steel tubing.



THE XⁿFAN ARRAY

The **XNRGY** fan selection program is specifically designed to allow the user to configure the most efficient and economical package meeting the needs of their project. Parameters such as speed, power, FEI, sound, size and quantity are available to be evaluated by the design engineer. The program makes it possible to rapidly select motors, VFDs and accessories along with capital and operating costs.



HIGHEST RELIABILITY

Each fan in the array is dynamically balanced to a higher degree than current commercial fans throughout the intended operating range to ensure the longest possible bearing life and lowest transmitted vibration. Many fan arrays in operation today suffer from bearing current issues when fans are operated on VFDs. To eliminate the possibility of bearing current damage, all motors used in **XⁿFan** are available with hybrid ceramic bearings or shaft grounding kit.



UNIQUE TUBULAR DESIGN

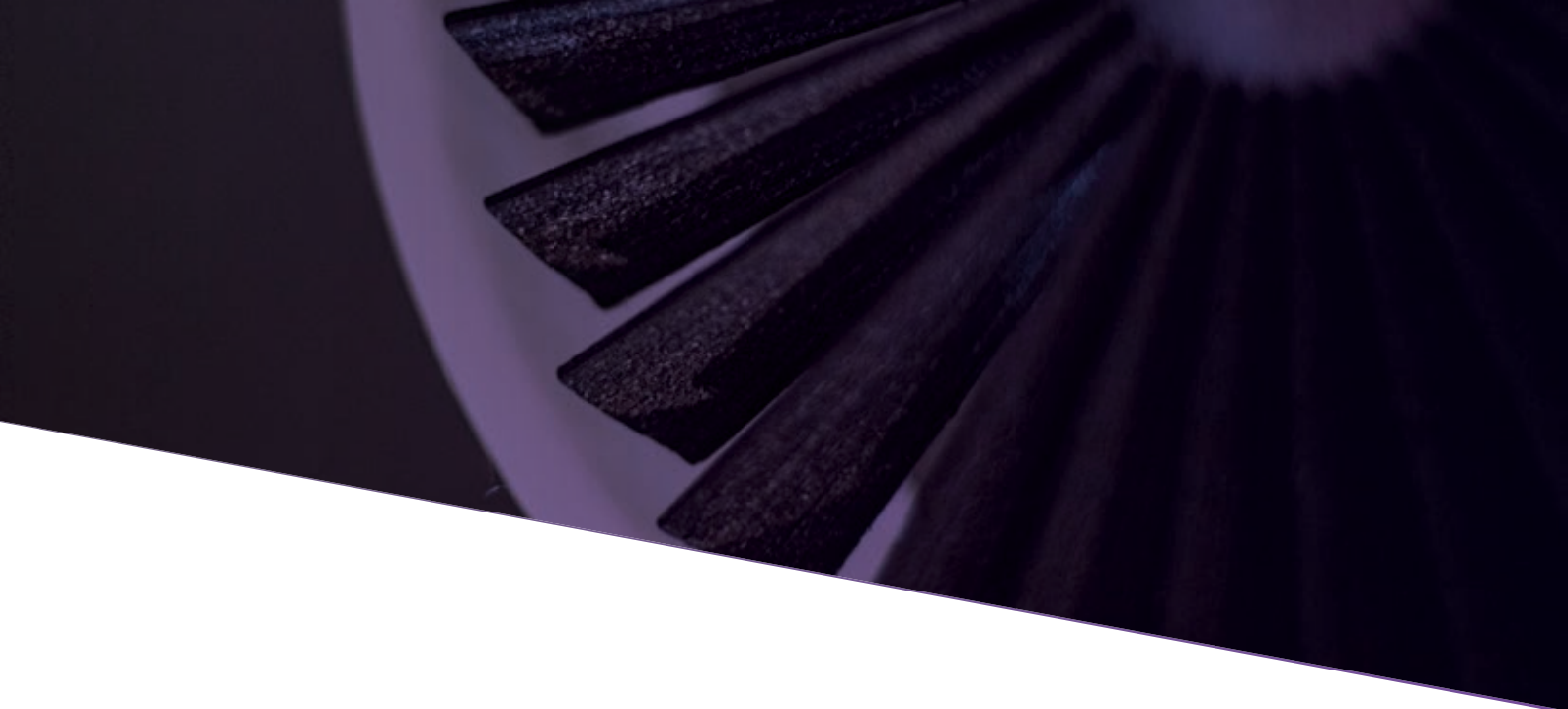
The unique structural tube design uses different materials, such as stainless steel or powder coated steel. The stainless steel corner connectors are specifically designed for fan array application and fastening without welding. These features make assembly light and installation efficient, effortless and quite suitable for use in knock-down and retrofit applications.

Powder coated surfaces option is also available and is suitable for use in health care, clean room and food processing projects.



XⁿFAN ARRAY ACOUSTIC PACKAGE

Each **XⁿFan** is designed for the lowest sound in its class. It is available in three versions and can be selected based on several criteria, including capital cost, operating efficiency and sound. **XⁿFan Array** is also available with a unique acoustic package to further reduce sound levels and meet the most stringent acoustic requirements.



STATE-OF-THE-ART X^oDAMPER

X^oDamper is the latest generation of the ultra-low loss backdraft dampers used to isolate a fan in the event of fan failure or planned shutdown. Developed by XNRGY's engineering, the damper features industry-leading AMCA Class II leakage rates along with near zero system effects during operation.



CONTROLS AND ELECTRICAL PACKAGES

XNRGY offers a wide variety of control options that can interface with any building management system. Fan arrays that use induction motors are normally configured with VFDs. Custom control panels are available with one or multiple VFDs per array, redundant VFD, and one VFD per motor. PM motors and switched reluctance motors require one controller per motor.

Air flow rates for each fan in the array can be monitored using a built-in piezometer ring. The piezometer ring offers a highly accurate method for air flow measurement that can be interfaced with the control panel for direct readout of air flow.



