



Delivering the Best Innovations in Climate Systems



Focused on solutions

At **XNRGY**, we are committed to offer solutions focusing on low sound and vibration levels, high efficiency, energy recovery and low power usage in a wide range of applications, especially data centers.

The core team at XNRGY Climate Systems has over 200 years of HVAC experience collectively. The combined value of the systems engineered and designed under XNRGY leadership surpasses \$1B US. This gives XNRGY the ability to offer the smoothest and most efficient solutions possible as per the required specifications.

XNRGY pursues the Integrated Project Delivery (IPD) process, offering optimized solutions that meet customer requirements during the early stages of a project. This avoids individual end products to face buildings' challenges, such as delivery, quality and conflicts between the design and construction teams.

Our objective is to add value to the entire project by offering high quality and efficiency products that lead to lower costs and energy consumption in the long run. Innovation, commitment to quality, performance and energy efficiency sets **XNRGY** apart as a leader in the industry.

Features, such as:

- a modern manufacturing and R&D facility
- a state-of-the-art AMCA reverberant sound lab
- automated engineering and factory processes resulting in lower overhead and cost and
- conducting CFD modeling

... make **XNRGY** one of a kind.





MANUFACTURING FACILITY & ACTIVITIES

Committed to innovation

XNRGY mainly focuses on providing optimum solutions for hyperscale data centers, pharmaceutical and healthcare facilities, and institutional buildings.

XNRGY is investing in a 350,000 s.f., brand-new, integrated manufacturing and R&D facility on a 1.2 million s.f. site ideally located on Montreal's South Shore. It is equipped with advanced, automated machinery that can meet the desired market lead time and better control the fluctuations of manufacturing processes resulting from market demand.

XNRGY is applying lean manufacturing process:

- Demand Flow Technology (DFT)
- 5S Management
- Cost Improvement Program
- Value Stream Mapping
- Kaizen
- Key Performance Indicators (KPIs)
- Quality Management System

Adapting leading edge manufacturing technologies, system and management practices identifies **XNRGY** as a world-class manufacturer.

The X Offering

We strongly believe and invest in full automation. Our design tool not only facilitates all processes from design to manufacture but also increases process effectiveness by eliminating multiple individuals and tools.

Custom Air Handling Units

XNRGY provides custom air handling units up to 300,000+ CFM. Their high-quality construction and performance and available options make XNRGY air handling units suitable for all commercial and industrial applications. Our products are particularly suited to meet stringent standards found in life science and data center applications.

- 2", 3" & 4" wall construction
- Galvanized/stainless steel and aluminum panels
- Fiberglass and injected foam insulation
- Double/triple tunnels
- Stacked/side-by-side arrangements for energy recovery applications, including heat pipes, energy wheels, plate-to-plate heat exchangers, and run-around pipes
- 25/50 fire and smoke rating as per ASTM E84
- Gaskets/No-Thru metal thermal break
- Polyester powder coat/air dried enamel paint
- Panel finish resistant up to 5000 hr. salt spray as per ASTM B117
- Antimicrobial coating
- Knock-down construction for retrofit applications
- Wash-down construction for pharmaceutical and food industry applications
- Unique fan array construction with backdraft damper with close to zero system effect
- IAQ focus for health care and pharmaceutical applications using UV lights, carbon and HEPA filtration and bipolar ionization
- Certified in compliance to UL 1995/CSA 22.2 No. 236





The **X** Offering – **DX**

Reliability comes first in DX refrigeration manufacturing

XNRCY offers an improved and fully optimized control system, a higher EER and the best industry part-load efficiency (IEER) by providing a combination of variable and fixed speed compressors and high condenser face area.

XNRCY rooftop units come in 22 main models that range from 12 to 200 tons. The modular condensing unit design not only extends the capacity range to +400 tons but also reduces the lead time and makes the redundancy option available for critical applications. Various DX unit types are available, such as air, water and evaporative cooled condensers, in addition to air cooled and water source heat pumps, enabling **XNRCY** to provide the right solution for any application.

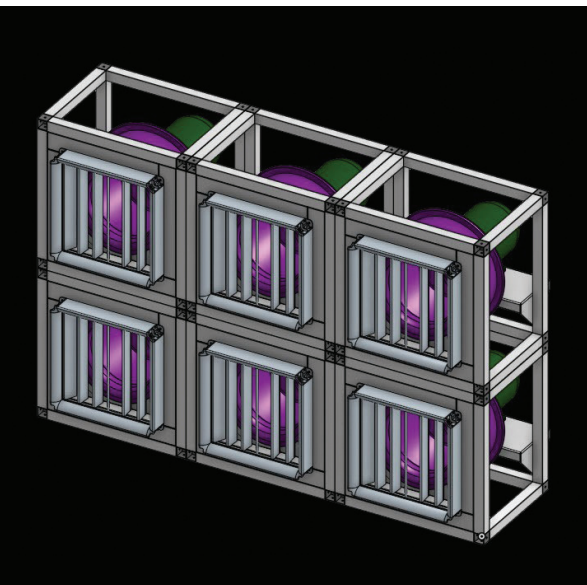


Key features of XNRCY DX units:

- One to four circuits with a turndown ratio of up to 1:74
- Inverter technology combined with fixed speed technology to achieve higher part-load efficiency
- Electronic expansion valve with Modbus for precise humidity and temperature control
- Microchannel condenser coil for higher efficiency and lower refrigerant charge
- Hot gas reheat option with modulating 3-way valve for precise humidity control
- Option of low temperature ambient cooling kit
- Air cooled heat pump configuration

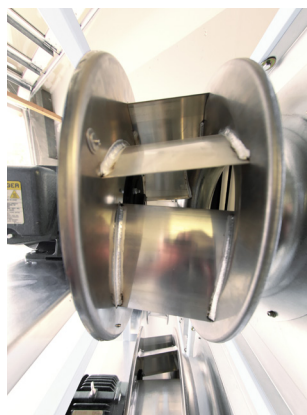
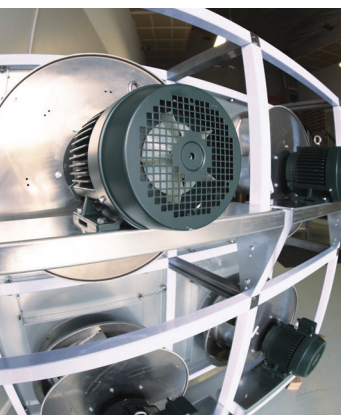
The X Offering – XⁿFan Array

Using fan arrays provides many benefits which are without a doubt, well-understood today. Uniform air flow, a smaller footprint, redundancy, high efficiency, low maintenance, lower sound levels and retrofit suitability make fan arrays more popular than the conventional fans. Our main effort is to offer the most efficient and cost-effective fan array in this competitive market.

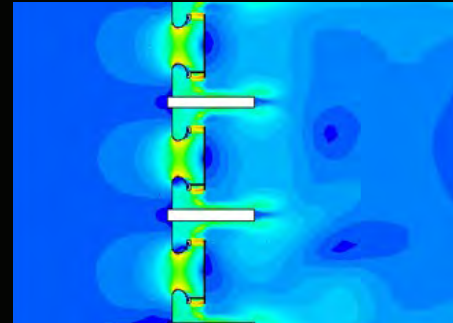


Key features of XⁿFan Array:

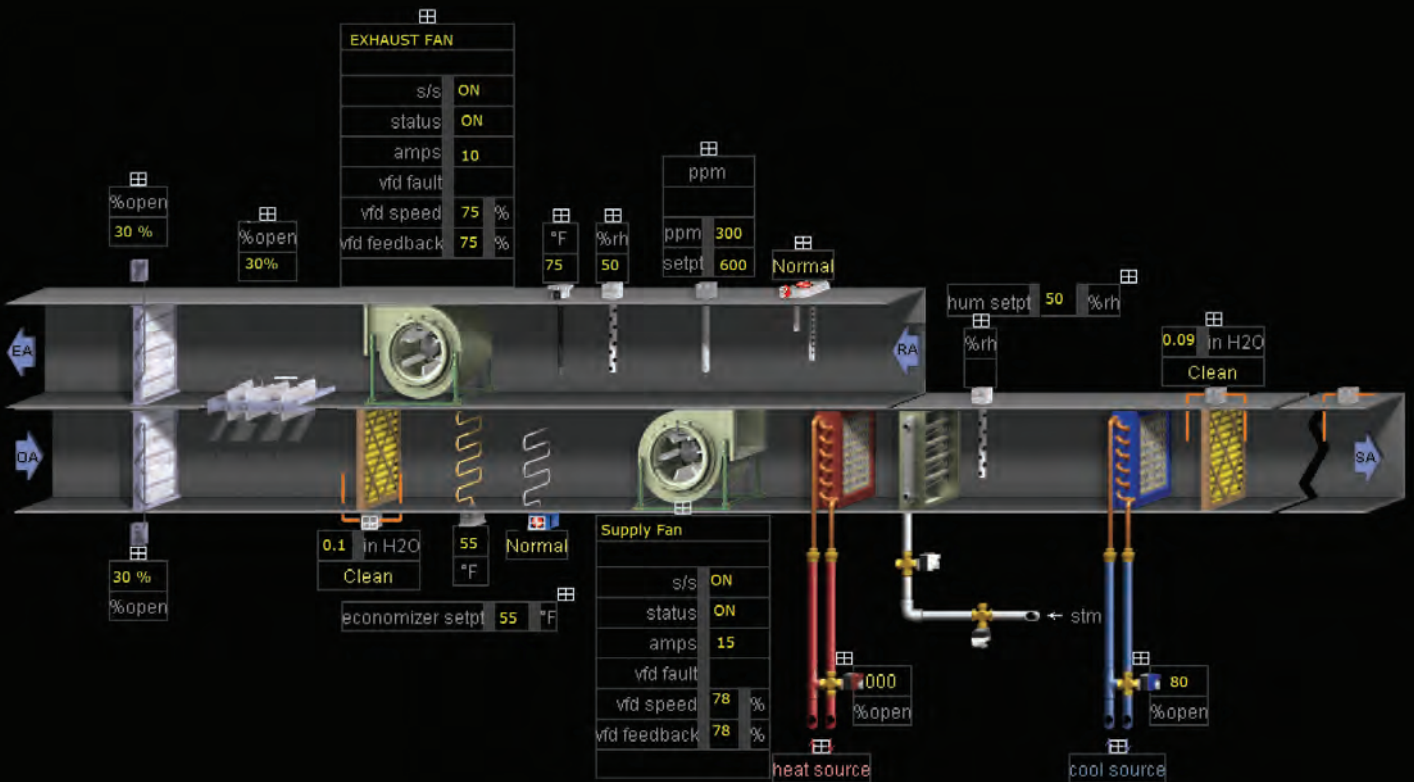
- Unique structural tube design with different materials, such as stainless steel or powder coated steel featuring stainless steel connectors that are specifically designed for fan array applications
- No welding fastening method
- Powder coated surfaces suitable for use in health care, clean room and food applications
- Wide range of high-efficiency fans, 14" to 39" diameter
- Fully acoustic construction design for sound-sensitive applications
- Vertical backdraft damper with close to zero system effect
- Knock-down fan array assembly for retrofit applications with tight access
- Can be used with EC fan/motor assembly
- Unique acoustic package for best-in-class performance



By conducting CFD modeling, we can confirm design objectives and identify deficiencies in the R&D modeling of components



At **XNRGY**, we believe in adding value, maximizing efficiency and optimizing project results by offering solutions to building owners from a single source.



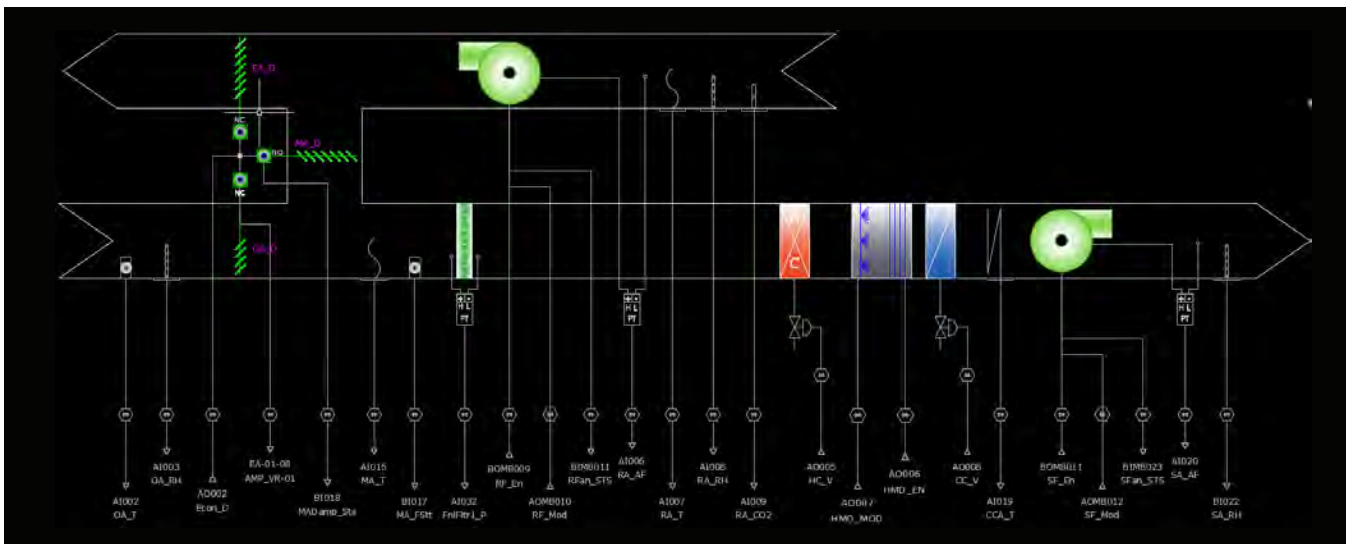
The X Offering – Controls

XNRGY control systems are not limited to our DX units, they are offered on all our products. Our leading-edge control system makes use of the latest technology and is user-friendly and plug-and-play. Our technology is designed and installed at the factory, allowing us to fill a gap in the custom air handling unit industry by providing a full package solution to building owners.



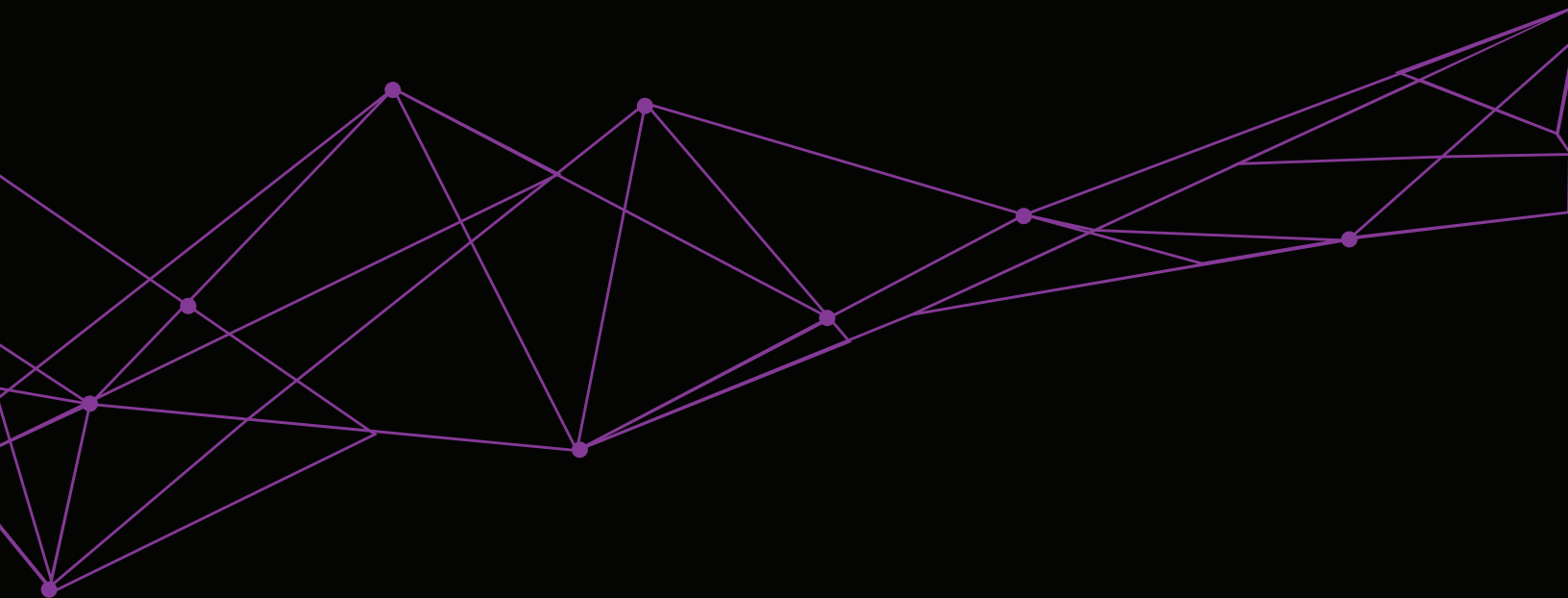
Key features of XNRGY Controls:

- Stand-alone DDC controls
- Embedded BACnet and Modbus
- Configurable and accessible controls through HMI¹
- WUI² Interface for remote access
- HMI and WUI custom layout graphics
- Full spectrum power and efficiency info access through BACnet



¹ Human Machine Interface

² Web User Interface



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