

Toshiba-Carrier is proud to introduce the Opti-V System. These solutions are engineered to be easy to design, install, and maintain. Opti-V is a smart choice for modern buildings looking to optimize space, reduce operating costs, and provide tailored comfort for every tenant.

WHAT IS OPTI-V

Opti-V Systems are single-phase variable refrigerant flow heat pumps that provide heating or cooling to individual zones using an inverter-driven compressor for precise capacity control. They offer a scalable solution for multi-zone applications where limited electrical infrastructure, space constraints, and varied comfort requirements are key design considerations. Additional Opti-V benefits include:

- Fewer ductwork requirements for easier installation
- Optimized load matching for improved part-load efficiency
- Long-line length capability for greater design flexibility
- BMS compatible for streamlined system management

DESIGN BENEFITS - COST AVOIDANCE WITH OPTI-V SYSTEMS

For building projects aiming to balance performance, efficiency, and profitability, Opti-V systems are a smart investment from the ground up. Opti-V benefits include:

- Option to build additional leasable space without the need of ductwork and smaller mechanical rooms
- Slim-profile heat pump saves space, reduces install costs
- Compatible with all-electric and solar-ready designs, helping meet energy and design codes
- Reduce the need for natural gas services
- Personalized temperature control through local thermostats



Opti-V – the smart choice for developers, owners, and tenants alike



Developers

Opti-V systems offer unmatched design flexibility especially in vertically stacked or space-constrained layouts. Consider:

- Higher lift capabilities ideal for 4 stories+
- Long refrigerant line lengths
- Minimal ductwork and smaller mechanical rooms to free up leasable square footage
- Lightweight equipment, often eliminating need for costly steel reinforcement



Owners

Opti-V systems can deliver building owners long-term value through reduced energy consumption, lower maintenance needs, and simplified operation. Consider:

- Dedicated electrical panels for each indoor unit
- More accurate monitoring of power usage and tenant energy usage billing
- Individual zone controls reduce service calls and building-wide disruptions
- Compatible with building management platforms for streamlined oversight



Tenants

Opti-V delivers tenants near quiet, efficient, and personalized comfort directly to each indoor zone. Consider:

- Zone-level temperature control for ideal comfort settings
- Quiet high wall indoor units – as low as 27 dBA – for intrusive-free comfort
- Reduced energy losses through the elimination of long duct runs or home-run refrigerant piping
- Supports higher MERV-rated filtration thanks to high-static indoor unit options, helping improve indoor air quality

Benefits of a low-carbon design

Buildings are responsible for up to 70% of emissions in many cities*—making HVAC electrification a key strategy for climate action. All-electric systems like **Opti-V can help reduce HVAC-related greenhouse gas emissions by up to 40–55%****, depending on the building type and local grid. By adopting low-carbon technologies now, developers can meet evolving standards, lower energy costs, and attract sustainability-focused tenants.

*<https://www.epa.gov/ghgemissions/commercial-and-residential-sector-emissions>

**<https://docs.nrel.gov/docs/fy24osti/86103.pdf>



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