PRODUCT CATALOG

CAT-641

NOV. 2025

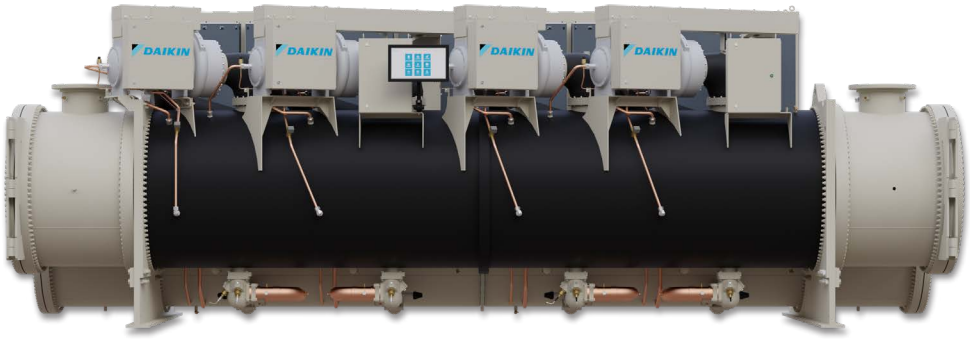
MAGNITUDE® WME-C

MAGNETIC BEARING OIL-FREE CENTRIFUGAL CHILLERS

- MODEL WME-C (SINGLE, DUAL & QUAD COMPRESSORS)
- 250 - 3000 TONS (900 - 10,500 kW) COOLING
- 21,000 - 38,000 MBH (6150 - 11,100 kW) HEATING
- R-513A & R-515B REFRIGERANT

LEARN MORE AT **DAIKINAPPLIED.COM**

MEDIUM PRESSURE REFRIGERANT & OIL-FREE **MAGNETIC BEARING TECHNOLOGY**



Experience superior performance and sustainability with the **Daikin Applied Magnitude WME-C** magnetic bearing chiller. This single-stage, direct-drive design revolutionizes chiller technology. By eliminating gears, oil and hot gas bypass, it has significantly fewer moving parts than competitors. This inherent simplicity ensures **superior reliability, longevity and reduced maintenance** through its completely oil-free operation.

WME-C uses sustainable A1 refrigerants to deliver i**ndustry-leading full-load efficiencies and exceptional part-load (IPLV)**. For mission-critical operations like data centers, its Rapid Restore and Ride-through capabilities ensure continuous service within the chiller's space-saving, compact footprint.

WME-C also offers an **unmatched operational envelope** for demanding applications. It handles low condenser entering water temperatures down to 40°F and high evaporator leaving water temperatures up to 72°F. The WME-C Quad further extends capability, reaching high condenser leaving water temperatures up to 130°F and enabling **inverted duty or heating control modes**. With an air-cooled VFD for lower maintenance and superior turndown, the WME-C provides exceptional performance and simplified upkeep compared to liquid-cooled alternatives, making it the ideal sustainable and reliable water-cooled chiller solution.

PERFORMANCE

- R-513A/R-515B refrigerant
- 250-3000 tons cooling
  21,000-38,000 MBH heating
- 81 dB(A) sound levels
- 40% greater efficiency
- Industry-leading
  R-515B efficiencies
- Condenser LWT up to 130°F
- Ultra-wide operating envelope with free-cooling, inverted duty

LINKS:

- Installation & Operation Manual
- Engineering Submittal Data
- RapidRestore® Video

CERTIFICATIONS

c ETL LISTED US
Intertek

AHRI CERTIFIED®
www.ahridirectory.org
Water-Cooled Water Chilling and Heat Pump Water-Heating Packages
AHRI Standards 550/590 and 551/591

TABLE OF CONTENTS

Environmentally Friendly

As we become more aware of the environmental impact of their energy consumption and look for ways to reduce carbon footprint, the demand for electric HVAC systems has grown. Magnetic bearing, electric HVAC chillers like WME-C produce **lower emissions** compared to traditional centrifugal chillers, making them an attractive option for building owners and facility managers looking to **reduce carbonization**. No lubrication (oil) is used, which minimizes the risk of pollution from lubricant leaks or spills. Magnetic bearing technology also reduces mechanical wear and tear, yielding increased reliability and equipment longevity, which in turn lowers landfill impact associated with production and disposal of equipment.

ASHRAE Standard 34 Safety Groups

Higher Flammability (3)	A3	B3
Flammable (2)	A2	B2
Lower Flammability (2L)	A2L	B2L
No Flame Propogation (1)	A1	B1
	Lower Toxicity (A)	Higher Toxicity (B)

Low GWP Refrigerant

The Daikin Applied WME-C chiller is a versatile, next-generation machine that can be configured to use R-515B or R-513A, offering building owners sustainable refrigerant choices for medium-pressure applications.

R-515B: A low-GWP refrigerant with a value of just 293 and a non-flammable A1 safety classification, the lowest possible rating.

R-513A: An A1, non-flammable refrigerant with an ultra-low GWP of approximately 392, an excellent replacement for R-134a.

By using either R-515B or R-513A, WME-C chillers offer a long-term, climate-conscious solution and allows WME-C to qualify for Enhanced Refrigerant Management under Leadership in Energy and Environmental Design (LEED) Green Building Certification.

Industry-Leading Performance

As the first HVAC manufacturer to bring magnetic bearing chiller technology to market, Daikin Applied Magnitude chillers have led the industry; boasting a nearly 40% greater efficiency over traditional oiled centrifugals.

Magnitude WME-C chillers offer the **best performance in the market** relative to other medium pressure centrifugal chillers using R-515B or R-515A refrigerant - both full-load efficiency and part-load IPLV. This is in part thanks to WME-C's **wide and unmatched operational envelope:**

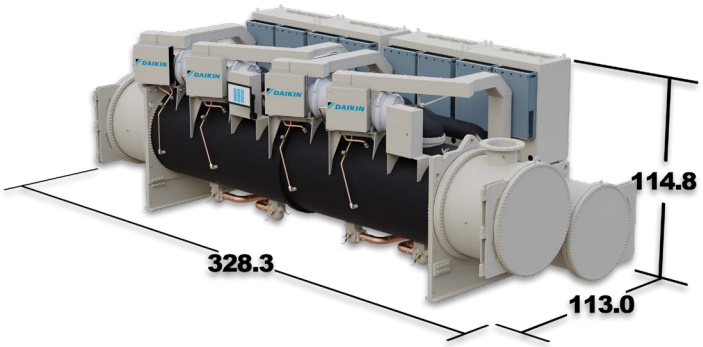
- **Low condenser EWT down to 40°F**
- **High evaporator LWT up to 72°F**
- **High condenser LWT up to 130°F**
- **Inverted duty operation or heating control mode** (where condenser EWT < evaporator LWT) omits need for waterside economizer

Magnetic Bearing Compressors

Daikin's magnetic bearing compressor technology provides **high efficiency, reliability, and lower operating costs by eliminating oil**. This oil-free design removes mechanical wear, contamination from oil buildup on heat transfer surfaces and the need for oil maintenance. As a result, the compressors have a longer lifespan, lower maintenance requirements, and **deliver energy savings up to 40% more compared to traditional centrifugal chillers**.

Compact Footprint

The compact size of a Magnitude WME-C chiller is ideal for both new and replacement installations. It's a perfect fit when looking to maximize usable space while minimizing installation costs. WME-C provides the **smallest footprint in the market among similar capacity R-513A and R-515B magnetic bearing chillers** – optimizing floorspace and minimizing installation costs that are critical to customers.



Knockdown Disassembly

To better accommodate challenging installation sites, WME-C chillers offer a factory knock-down option. This allows the unit to be disassembled into smaller, more manageable components, **simplifying transportation and on-site maneuverability into tight or difficult-to-reach spaces**. The reduced size and weight of the sections during transit and installation can decrease overall project time and effort, making it ideal for retrofit or renovation projects with limited access. The factory provides various packaging options to ensure a smooth delivery and assembly process.

IDEAL FOR RETROFIT & RENOVATION

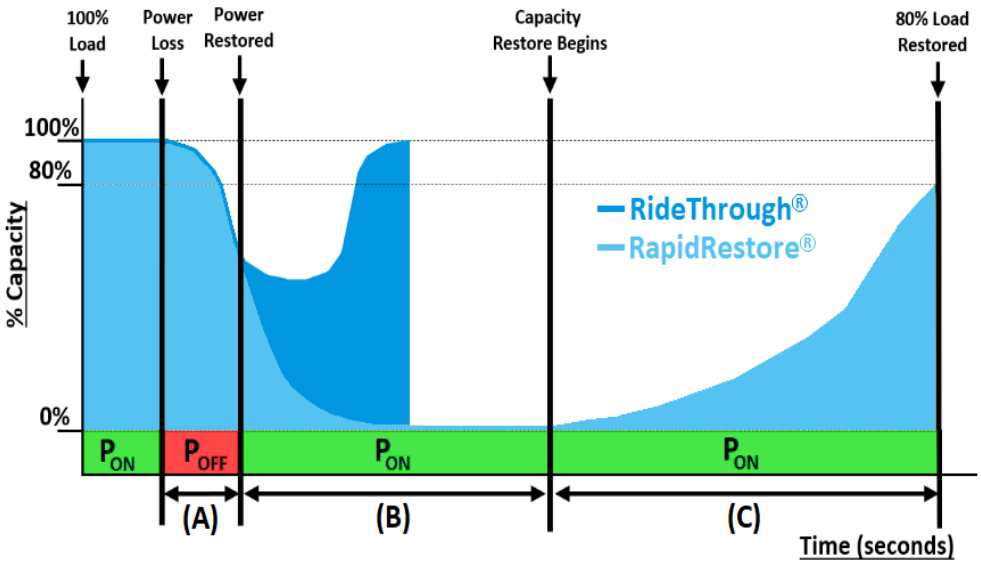
NAVIGATE SMALL CORRIDORS & TIGHT SPACES EASILY

Maximum Uptime

Power failures can turn into a critical loss of cooling in mission critical facilities such as data centers, hospitals or manufacturing buildings. These applications call for stringent capabilities for chillers to restart or resume operation quickly. WME offers the **best uptime capabilities in the industry and has low inrush current at startup, ideal for operation with backup or emergency power systems.** Other chillers may require adding expensive thermal storage tanks, but WME simplifies ownership thanks to **RapidRestore and RideThrough® technologies**. Combining this with WME's operation down to 10% capacity without hot gas bypass lets facility managers breathe easier with decreased disruptions to vital services.

RIDETHROUGH®

WME chillers feature Daikin Applied's unique power trip resilience technology called RideThrough, which **maintains operation, even during a power loss, for up to 17 seconds** – a feature that no other competitor is known to offer. This is most beneficial when a backup generator is on site, as it typically takes less than 10 seconds to turn on and provide power back to the unit. With RideThrough, when power goes out, the compressor motor maintains rotation and the VFD catches and resynchronizes with the spinning rotor. This allows the chiller to push straight through a short-term power loss and return to its pre-power loss capacity within seconds, without shutting down and rebooting. When the motor isn't drawing power, it serves as a generative power system, temporarily feeding the bearings and controls with energy.



RAPIDRESTORE®

When power outage times exceed RideThrough's threshold, Magnitude WME again has the best solution in the industry with RapidRestore. Using RapidRestore, WME surpasses other chillers' **quick start-up and fast loading** abilities in record times. WME can restart in as little as 20 seconds after power is restored and then restores 80% cooling capacity in less than 75 seconds.

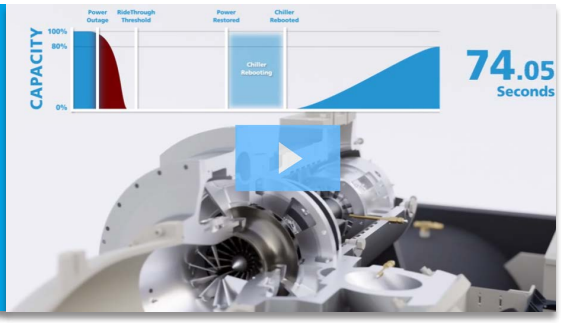
	RideThrough®	RapidRestore®	
	Power Trip Resilience (A)	Chiller Reboot (B)[3]	80% Capacity (C)
WME	17 sec[1,5]	20 sec[2,4,5]	75 sec[5]
Competitors	Not offered	30-65 sec	80-130 sec

[1] Max power loss duration to maintain operation - condition dependent
[2] Restart time with UPS (without UPS = 60 sec)
[3] Time after power is restored
[4] Dependent on power loss duration
[5] All values are based on WME-C vintage

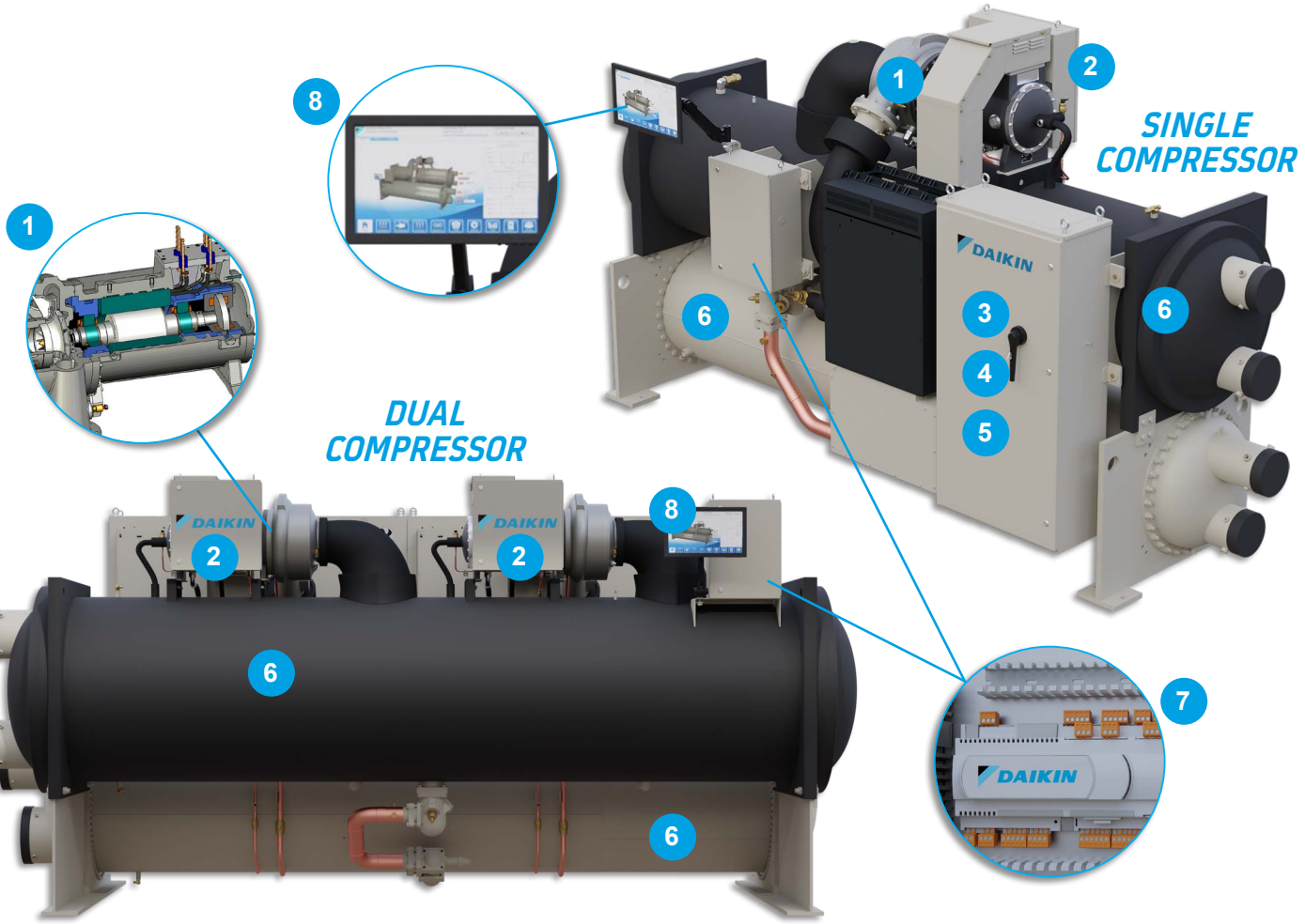
17 SECONDS OF CONTINUED OPERATION

20 SECOND CHILLER REBOOT

75 SECOND RESTORE TO 80% COOLING CAPACITY



FEATURES & BENEFITS



1 MAGNETIC BEARING COMPRESSOR

- Minimizes maintenance with an oil-free, refrigerant-cooled design
- Maintains perfect alignment and ensures flawless operation with real-time, digital controls
- Reduces footprint and enhances performance with an in-line, two-stage impeller
- Increases motor lifespan through a soft-start function

2 VARIABLE FREQUENCY DRIVE (VFD)

- Air cooled for less maintenance, less fouling than liquid cooled
- Reduced energy costs during part-load operation and/or low condenser water temperatures
- Soft starts minimize electrical and mechanical stress
- Allows for smaller backup generator requirements
- Increases power factor to reduce utility surcharges

3 ELECTRICAL INTERFERENCE FILTERS

- Suppresses high-frequency noise from passing through power lines to protect electronic equipment
- Optional harmonic filter mitigates VFD distortions and extends equipment lifespan

4 SHORT CIRCUIT CURRENT RATINGS (SCCR)

- Protects from injury and minimizes equipment damage
- Prevents wider electrical system problems critical to mission-critical facilities,
- High capacity power panels up to 100kA allow for a variety of utility configurations and building code compliance

5 GROUND FAULT PROTECTION

- Protects equipment from line-to-ground fault currents

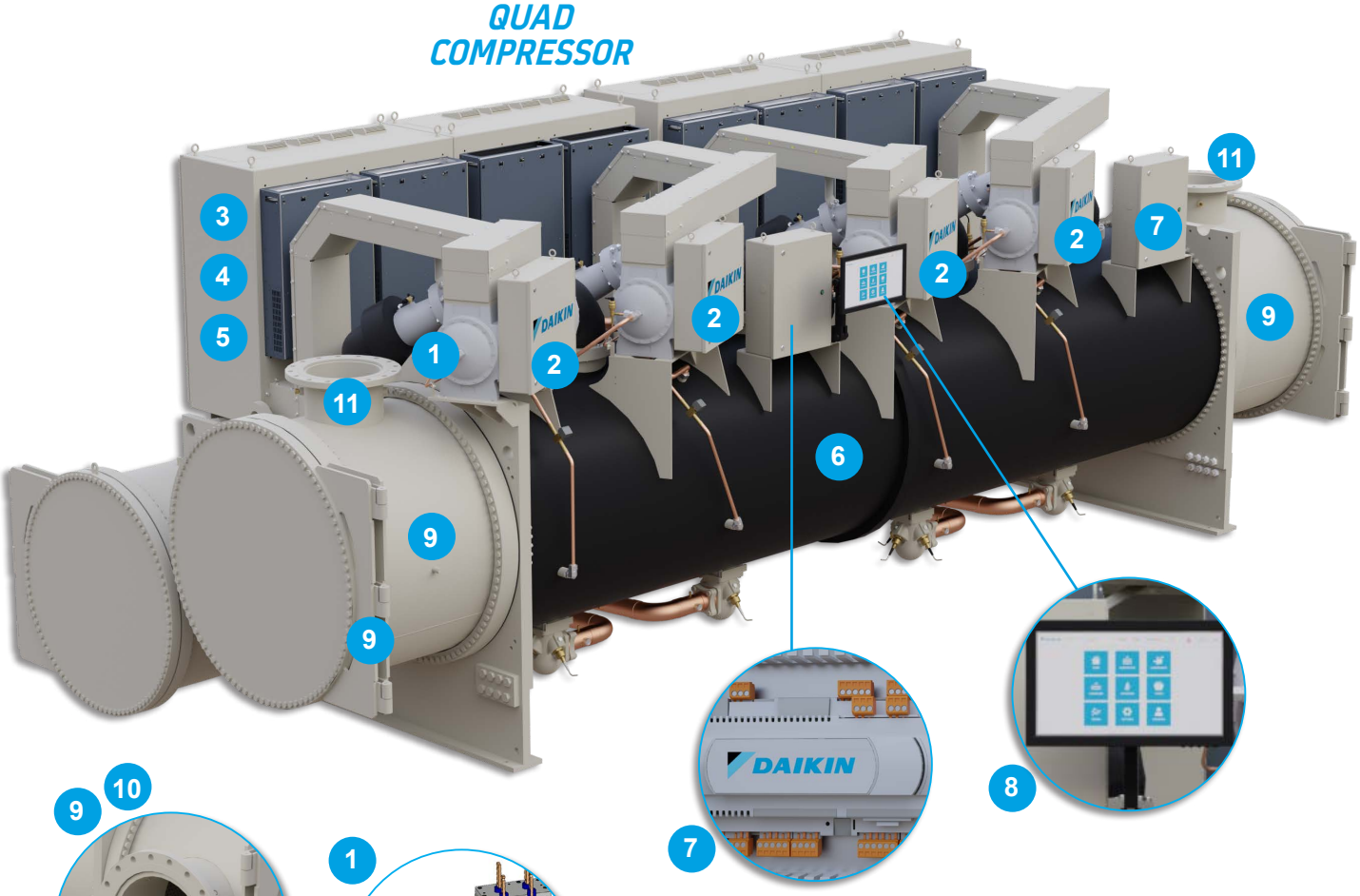
6 PROTECTIVE COATINGS

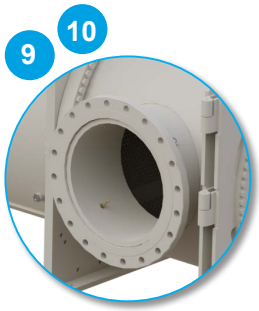
- Various tube thicknesses with epoxy or ceramic coatings extend the life of the equipment in harsh water systems
- Optional anti-corrosive tube sheet or water box coating materials and alloy anodes
- Optional single or double thickness insulation mitigates condensation in high-humidity environments and improves efficiency

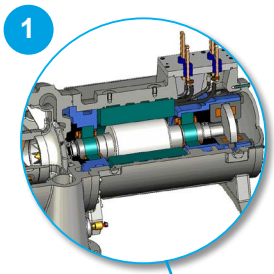
7 MICROTECH® UNIT CONTROLLER

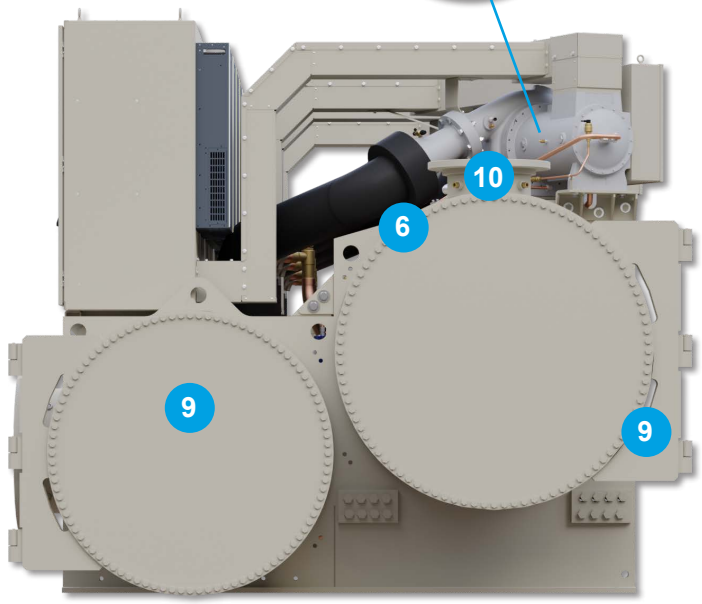
- Monitors unit operating status, provides fault protections and intuitive setpoint adjustments
- BACnet® or Modbus® data communication options provide easy and affordable integration into a building automation system (BAS) of choice

QUAD COMPRESSOR









8 HUMAN/MACHINE INTERFACE (HMI PANEL)

- Movable monitor attached to unit with high-contrast, color touch screen
- Provides real-time trend graphs, chiller monitoring and performance data with animated graphics and controls

9 MARINE WATER BOX

- Optional water piping connections extending from the side of the waterbox
- Removable bolt-on cover to access heat exchanger tubes without breaking the existing field piping
- Optional hinged access cover for quick access

10 FLANGE WATER CONNECTIONS

- Optional ANSI raised-face flange on evaporator or condenser dishes/ water boxes

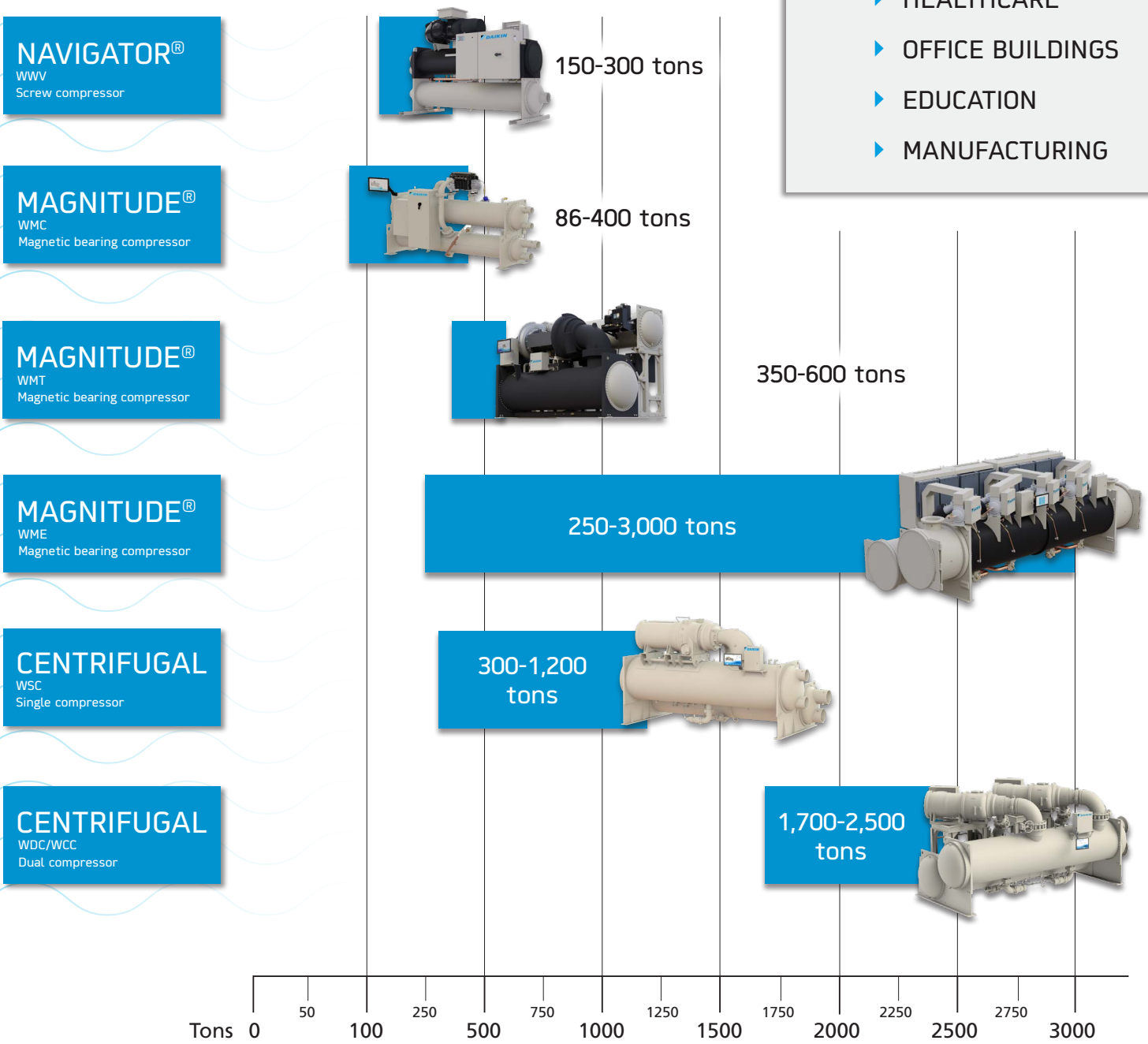
WATER-COOLED CHILLER SOLUTIONS

DAIKIN

APPLICATIONS

- DATA CENTERS
- HEALTHCARE
- OFFICE BUILDINGS
- EDUCATION
- MANUFACTURING

NAME/MODEL:



LEARN MORE AT

DAIKINAPPLIED.COM/PRODUCTS/CHILLER-PRODUCTS

DAIKIN 360
INTEGRATED SERVICE SOLUTIONS

MAINTAIN AND REPAIR

PROTECTIVE MAINTENANCE SERVICES

LEARN MORE

REPAIR SERVICES

Breakdowns happen and when your equipment has an issue, time is of the essence. Call us at 800-432-1342 to get Daikin Service professionals dispatched quickly and minimize downtime. Your local team is backed by nearly 100 years of experience to alleviate undue stress in your operations.

- **24/7 Emergency Service**
- **System Repairs & Assessments**
  (Ancillary Equipment: Boilers, Cooling Towers)
- **Equipment Diagnostics**
- **Technical Troubleshooting**
- **Building Automation & Controls**
- **OEM & Generic Parts/Supply**
- **All Equipment Types & Brands**

PLANNED MAINTENANCE SERVICES

Daikin Applied's service technicians can perform all of the vital maintenance your system needs to ensure your equipment is running at peak efficiency. From proper cleaning to software upgrades and necessary maintenance, our techs will maximize your system to help extend the life of your equipment.

- **Regularly Scheduled Maintenance**
- **Seasonal Startup & Shutdown**
- **System Diagnostics**
- **Condenser Cleaning**
- **Air Filters**
- **On-site System Inspections**

PREDICTIVE SERVICES

Predictive maintenance services anticipate failures before they happen to mitigate the risk of catastrophic failure. For those who have in-house maintenance capabilities, Daikin Service can also guide your team and be on standby for more complex technical needs with predictive maintenance.

- **Oil & Refrigerant Analysis**
- **Vibration Analysis**
- **System Diagnostics**
- **Eddy Current Testing**
- **Infrared Analysis**
- **Combustion Analysis**
- **IAQ Assessments**
- **Laser Alignments**
- **Bearing Analysis**

PROACTIVE SERVICES

With proactive maintenance services, we support you with proven experts, offerings and processes to ensure customers get the help they need from a trusted advisor.

- **Building Operations Review**
- **Contingency Planning**

DAIKIN 360
INTEGRATED SERVICE SOLUTIONS

PARTS & SUPPLIES

OEM AND GENERIC AFTERMARKET SOLUTIONS

LEARN MORE

LOCAL PARTS INVENTORY. LOCAL EXPERTISE.

When you need OEM or generic parts to repair your HVAC system, you need them quickly. Daikin Service has an expansive inventory and a centralized distribution center to get the right parts to you faster than ever before. To mitigate downtime, we have 80 locations (and counting) across North America to help you take care of your critical parts demand.

- ONE-STOP SHOP FOR ALL OEM & GENERIC PARTS
- NATIONAL LOCATION/DISTRIBUTION NETWORK
- CENTRALIZED DISTRIBUTION
- FACTORY-AUTHORIZED REPLACEMENT PARTS
- SAME-DAY SHIPPING ON MOST ORDERS
- EXPERT SUPPORT
- RELIABLE PERFORMANCE
- WALK-IN STORE LOCATIONS
- EXTENDED COMPONENT WARRANTIES (VFDS, COMPRESSORS, MOTORS)

DAIKIN 360
INTEGRATED SERVICE SOLUTIONS

RENTAL SOLUTIONS

KEEPING YOU UP AND RUNNING

LEARN MORE

CHILLERS | AIR CONDITIONERS | DEHUMIDIFIERS | HEATING | POWER

EMERGENCY RENTALS

When your equipment fails, limiting downtime is mission critical. Daikin Applied provides quick delivery and installation of reliable rental products to help you weather the outage. We're here to help get you back up and running, and can provide a turnkey solution.

- **Industry-leading efficiency and proven technology**
- **24-hour turnaround on available inventory**
- **8-hour average set up with on-site experts**
- **Comprehensive package, including pumps, flexible water piping connection and electrical hookups**

EQUIPMENT FOR PLANNED SITUATIONS

Forming a contingency plan in the event of an outage can help you quickly get operations back to normal and limit financial loss, and help you breathe easier when the unexpected happens. Selecting the right-sized equipment is just one part of the process. The best contingency plans start by assessing and understanding your financial risk, and then using this information to drive the rest of your plan. Our Rental Solutions experts can specify the supplemental cooling system required to support any situation you're experiencing.

- **System maintenance**
- **Building expansion**
- **Server room heat generation**
- **Seasonal/staff heat load swings**
- **Contingency plans**

SUPPLEMENTAL CAPACITY

When the demand of your facility or process exceeds your current system's capacity because of record-high temperatures or changes to cooling requirements, Daikin temporary rentals can be used to increase your heating or cooling output. By eliminating the need to purchase additional equipment that might be only used part of the year, you save on capital expenditures.

STANDBY

Standby for critical applications and processes is another efficient use for temporary rental equipment. A temporary system is sometimes used to back up manufacturing and chemical processes, or when a hospital's required system redundancy has been reduced.

COMPLETE HVAC SYSTEM SOLUTIONS

SELF-CONTAINED | ROOFTOPS | COILS | CONDENSING UNITS
AIR HANDLERS | WATER-COOLED CHILLERS | AIR-COOLED CHILLERS
MODULAR CENTRAL PLANTS | SITELINE BUILDING CONTROLS
UNIT HEATERS | FAN COILS | AIR PURIFIERS | WATER SOURCE HEAT PUMPS
VARIABLE AIR VOLUME UNITS | UNIT VENTILATORS

13600 INDUSTRIAL PARK BLVD. | MINNEAPOLIS, MN 55441
1-800-432-1342 | 763-553-5330

LEARN MORE AT
DAIKINAPPLIED.COM