DWSC C Series

Centrifugal compressor water cooled chiller

The new water-cooled centrifugal chiller with low GWP refrigerant

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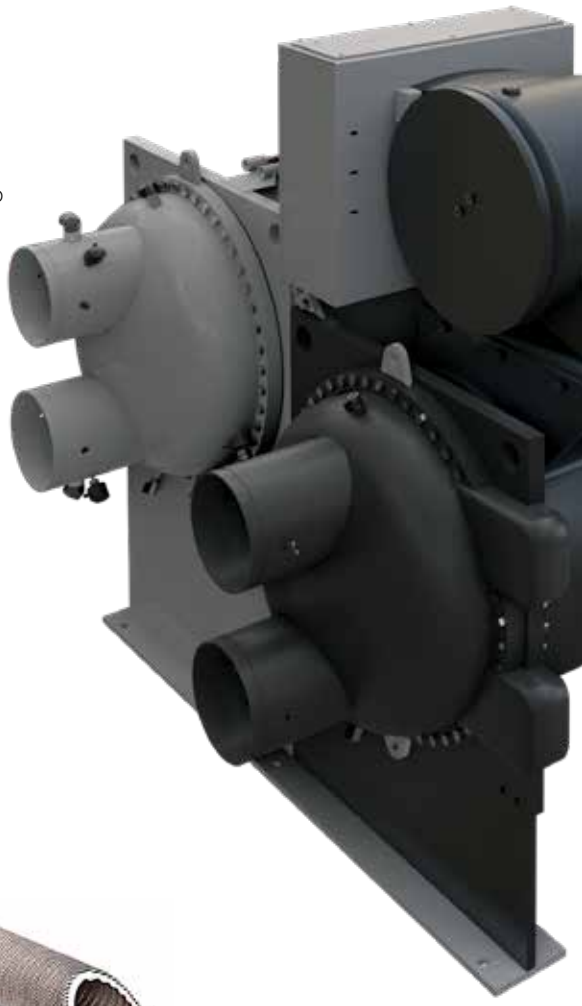
DWSC C series

The use of R-1234ze(E) offers an environmentally friendly solution, combining a low Global Warming Potential (GWP) with high energy efficiency. R-1234ze(E) is an HFO refrigerant (Hydro Fluoro Olefins) with an Ozone Depletion Potential (ODP) is equal to zero (0).
The introduction of the new R-1234ze(E) range provides a long-term solution that supports the HFC phase down schedule of the F-gas Regulation.

The range offers a choice of three different refrigerants – R134a, R513A and R1234ze – and all machines require less refrigerant than its predecessor series. The new Daikin DWSC C Series replaces the previous water-cooled Series B and will be available with as a customer-specific solution for even higher performance ranges up to 3500kW (1000RT) with R-1234ze and up to 4500kW (1250RT) with both R-134a and R-513A, with single centrifugal compressor.



Free cooling operation

Allows to reduce the power consumption generated by traditional mechanical cooling.

Evaporator pipes

› Outside: cavities for optimized nucleate boiling
› Inside: helical structure

Condenser tubes

› Outside: optimized for condensation
› Inside: helical structure

New MicroTech 4 controller installed as standard

› Main parameters visualization and easy modification
› Best efficiency operating point tracker
› Critical components' protection thanks to fast response
› Precise monitoring of the system and sub-system
› New options included
› Improvements compared to MicroTech III

Touch screen operator panel

Touch screen operator panel is graphically intuitive and easy to use for enhanced operator productivity. Important status and control information is available at a glance or a touch.

Unit mounted control panel

Variable Frequency Drive and Low Harmonics VFD

Variable Frequency Drive **designed and manufactured by Daikin** in the new Daikin center of Excellence located in Italy. VFD optimizes part load efficiency, a key performance feature since most chillers operate at part load 99% of their life. Low Harmonics VFD **designed and manufactured by Daikin** in accordance to the standards EC61000-2-4, IEC61000-3-4, IEEE 519, G5/4 achieving THD < 5%. Standard VFD and LH VFD are unit mounted and refrigerant cooled, ensuring higher efficiency and reliability.

Soft Starter Unit

Soft Starter Unit Mounted for Fixed Speed application in the new compact electrical panel for plug and play solution.

Dismountable electrical panel and On-site disassembly

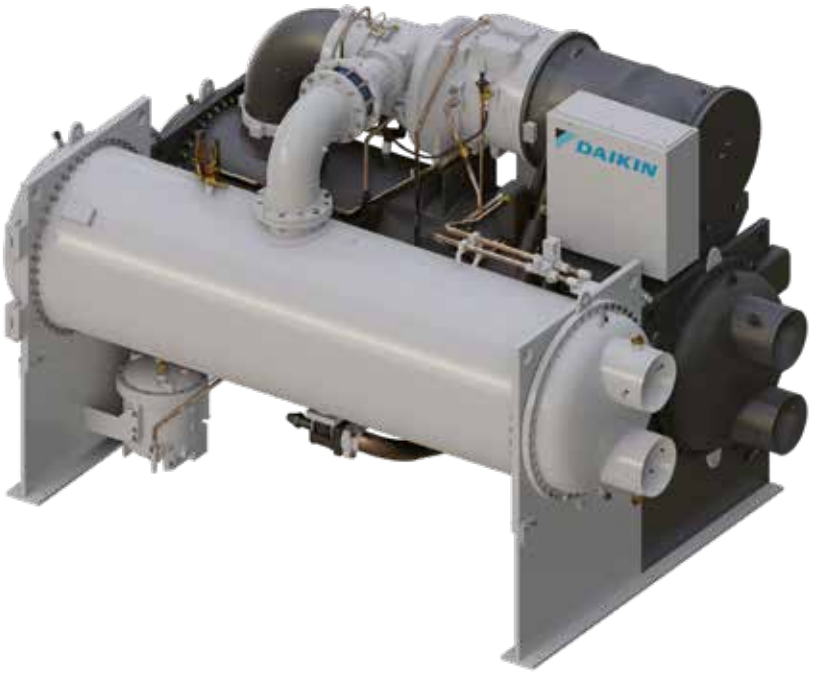
Dismountable electrical panel and On-site disassembly for suitability to all installation site needs and dimensions requirements.

Sound level reduction

Achieved thanks to dedicated acoustic insulation installed on the unit and available as option.

Rapid restart for fast start-up after power loss

The UPS keeps the controller switched on enabling the unit to quickly reach the full load. Focused on data center and all applications where the cooling capacity supply is crucial.



Electronic expansion valve

Offering superior refrigerant management throughout the entire chiller operating range and for achieving precise control of refrigerant mass flow.

Reduced refrigerant quantity

Thanks to the new high efficiency tubes and more compact heat exchanger design.

Heat pump mode

With reversibility on water side whenever a heating load is demanded thus improving suitability for applications with changing load during the year.

A life cycle return on your investment

Centrifugal chillers are a significant investment in your building system. You need a chiller that offers flexible design and a return on that investment throughout its life cycle. Whether your requirements are air conditioning, district energy plants or process cooling, new construction or renovation, Daikin centrifugal chillers are the right choice with real benefits for your bottom line.

Daikin quality at an affordable price

Daikin offers a wide range of centrifugal vessel and component combinations to provide the right solution for your specific application. The single compressor DWSC offers excellent full and part load performance while our dual compressor DWDC chillers offer many attractive benefits, including outstanding part-load efficiency, and system redundancy similar to two separate chillers, with a lower total installed cost.

Installed cost savings-two chillers in one package

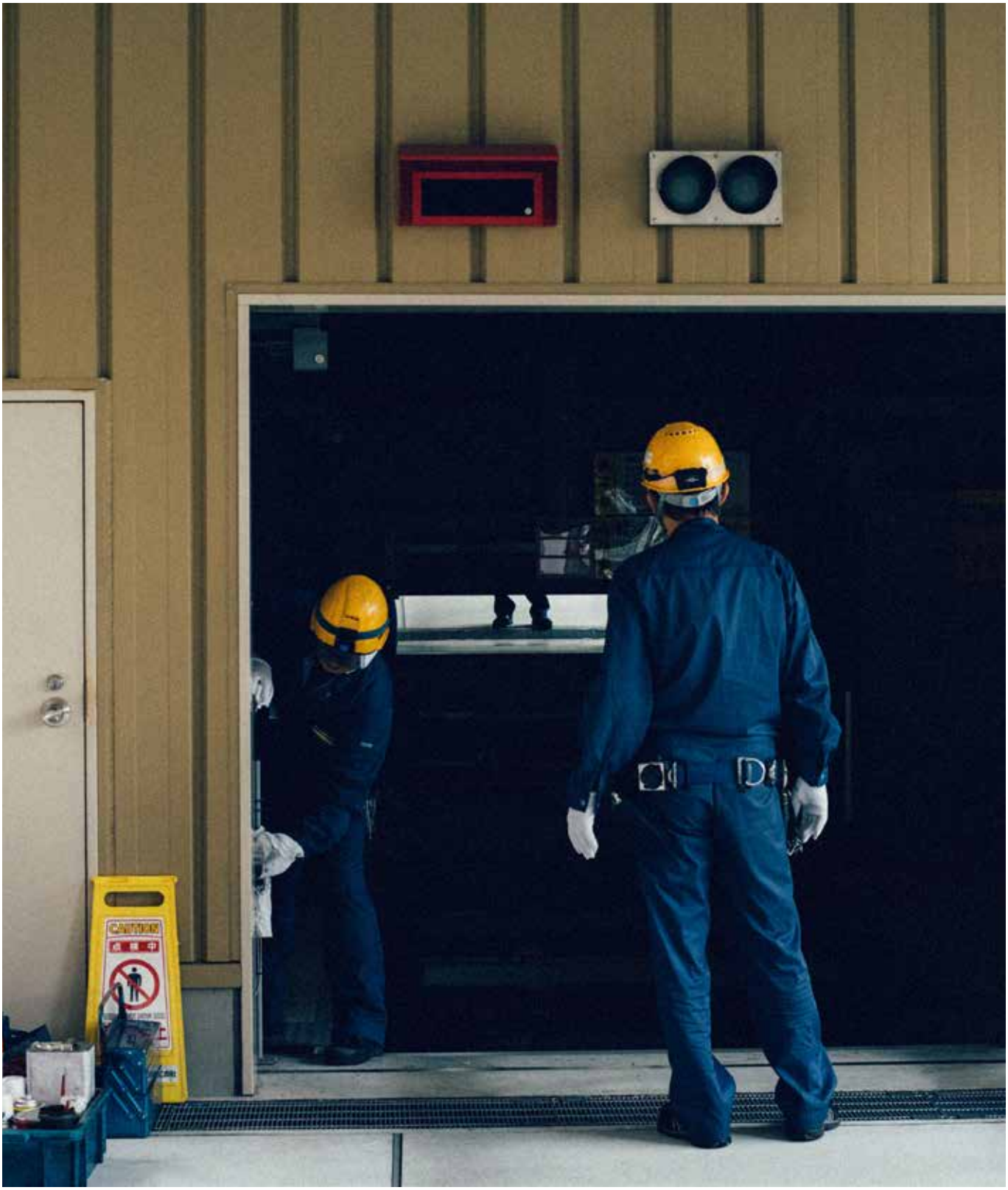
Daikin dual compressor centrifugal chillers take up less floor space than multiple single compressor chillers while delivering the combined capacity.

A dual compressor chiller can also provide installed costs savings of up to 35% compared to installing two separate chillers by reducing hardware and rigging costs and eliminating second chiller piping and pumps.

The right chiller for the job

Daikin makes several centrifugal chiller types to meet a wide variety of project size and performance requirements - commercial cooling, district energy plants or manufacturing processes.
For more information on a specific chiller type, visit Daikin.eu.

Application	Daikin centrifugal type
Cooling, most hours at full load, under 4,500 kW (1,200 ton)	DWSC Single compressor Chiller
Cooling above 4,500 kW (1,200 ton)	Dual compressor chiller, single circuit
Cooling = 6,000 ton, most hours at full load, high lift applications	Daikin Centrifugal Type WCT Dual compressor 2 stage chiller
Heating, such as space heating or domestic hot water	Templifier water heater
Optimized part load performance	Variable frequency drive designed by Daikin



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ECPEN21-469 10/21