

## DWSC, DWDC B Series

Centrifugal compressor water cooled chiller



- › DWSC/DWDC B is available in a wide range of capacities offering the widest possible choice in use. All models are fitted with a single refrigerant circuit
- › Daikin DWSC B range with both R-134a and R-513a offers a choice of cooling capacity from 1,000 kW (300 RT) up to 4,500 kW (1,250 RT) at nominal conditions, with single centrifugal compressor
- › Daikin DWDC B range with both R-134a and R-513a offers a choice of cooling capacity from 2,000 kW (600 RT) up to 9,000 kW (2,500 RT) at nominal conditions, with two centrifugal compressors



## 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.



## Efficient, flexible and sustainable centrifugal chillers

### **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.

### **World class unloading capability**

without hot gas bypass. The movable discharge diffuser increases stability while reducing sound and vibration.

### **Positive pressure design with R-134a and**

**low GWP R-513A refrigerant** does not require a purge system and offers reduced maintenance of seals and hydrodynamic bearings.

### **Quiet compressor design**

with movable discharge geometry that reduces sound levels at part load and optional refrigerant injection system absorbs sound energy for even quieter operation.

### **Retrofit application ready**

The selection of R-513A allows to minimize the global warming impact of the chillers thanks to low Global Warming Potential. R-513A is ASHRAE Standard 34 and ISO-817 Class A1 non-flammable refrigerant, and is therefore compatible with existing application standards and building codes. R-513A can also be switched in the field, offering increased flexibility and choice.

### **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.

### DWSC B - Single Compressor

- ✓ Excellent full and part load performance with Daikin VFD unit mounted refrigerant cooled
- ✓ Semi hermetic compressor design reduces maintenance by eliminating shaft seals associated with open motor design
- ✓ Outstanding unloading capability through the use of moveable discharge diffuser on the compressor

### DWDC B - Dual Compressor

- ✓ Overall lowest energy consumption with best part load performance
- ✓ Smaller chilled water plant where unit unloading is expected
- ✓ Floor space is limited (16-foot vessel length)
- ✓ Two or three pass vessels are required, typical of retrofit applications
- ✓ Built-in redundancy – a single compressor will provide 60% of full load capacity



## 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](http://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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