Data Center Solutions

All-in-one solutions from the leading cooling company.

Free cooling chillers

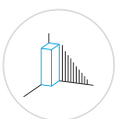
Compact free cooling chillers up to 2.150 kW

The chiller portfolio includes screw compressor units equipped with variable frequency drives (**VFD**) designed and manufactured in-house and mounted onto the compressor for better reliability and efficiency. Thanks to VFD, precise modulation of cooling loads is allowed, with capacities up to 2.150 kW and scroll compressor chillers with capacities up to 1.344 kW.

Despite their large cooling capacities, the Daikin products are compact, which allows them to be fitted in restricted areas. This is specifically true for free cooling units with a configuration that does not exceed the unit footprint.

Daikin offers different types of free cooling, including **glycol free** systems. Dedicated data center configuration includes an **integrated active harmonic filter**, directly into the unit's electrical panel to keep compactness.

Free cooling for lower operating costs



Compact footprint combined with large cooling capabilities

Glycol free, free cooling options

VFD screw compressor for improved reliability and efficiency

Max.
leaving water
temperature: +30 °C

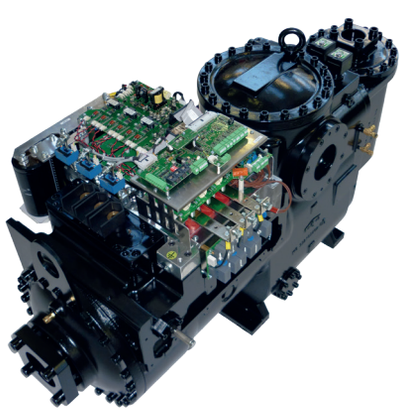
Min. ambient
temperature:
–30 °C

Max. ambient
temperature:
+55 °C

Our chillers' heart

Daikin offers technology that is designed to be extremely reliable and durable, even in harsh environments. That is the case of the VFD screw compressor by Daikin, **designed and manufactured in-house** and mounted onto the compressor for better reliability and efficiency. It differentiates from other screw compressors for providing greater energy efficiency thanks to the optimised screw design and the integration of a specifically designed VFD.

This integration allows the compressor to perfectly match the different load requirements of the data center, through the capacity control of the compressor, resulting in outstanding part load efficiency, and thereby **low PUE** and low operating costs. On top of this, VFD and the integrated active low harmonics filter are both refrigerant cooled, further enhancing reliability, especially for those applications in extreme ambient conditions, where traditional air-cooled VFD would not be the best option.



Water cooled Trim Chiller & Heat Pump

Operating range

Compressor leaving water temp.	20°C	90°C
Chilled water	-8°C	45°C

Cooling capacity range: from **330 kW** to **2000 kW**

Heating capacity range: from **400 kW** to **2100 kW**

Sustainability at the core
Accelerating the decarbonization of process heating by replacing traditional boilers with renewable electricity systems, significantly reducing CO_2 emissions.

Flexible installation
Overcoming space and layout constraints with a compact, modular design and flexible connections, allowing easy integration into both new and existing plants.

Advanced efficiency
The Inverter-driven screw compressors and VVR technology ensure high energy efficiency, stable performance, and low operating costs across varying conditions.

Consistent operational continuity
Featuring Daikin's Intelligent Chiller Manager (iCM), which optimizes performance, ensures temperature stability, and supports predictive maintenance.

Comprehensive after-sales services
Comprehensive after-sales services, including remote monitoring, diagnostics, and condition-based maintenance, to ensure long-term reliability and ROI.

Performance peace of mind
All VZ units can undergo Factory Acceptance Testing (FAT) at Daikin Applied Europe's AHRI-certified facilities, ensuring seamless commissioning and consistent operational results on-site.

Pro-W Fan Wall

Designed for large and hyperscale requirements

Compact unit
- Compact section design
- Side and top coil configurations

Direct cooling for large duty applications
- Higher energy efficiency
- Lower capital investment
- Better system stability
- Temperature stability

Range
- 4 standard sizes
- Cooling capacity: **175 – 500 kW**

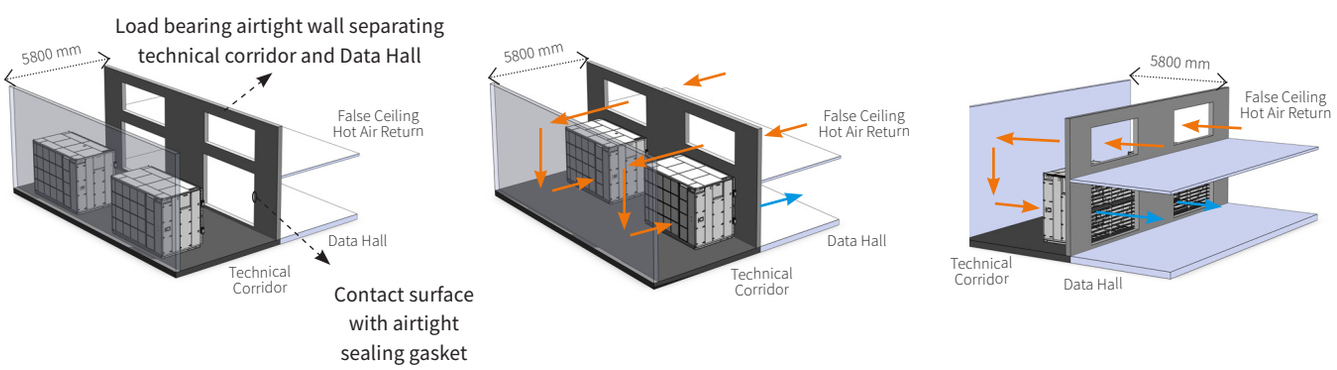
High efficiency
- Latest generation EC fans
- Advanced control strategies

Extras
- Range of optional extras
- Standard right and left configuration
- Front or side filter access

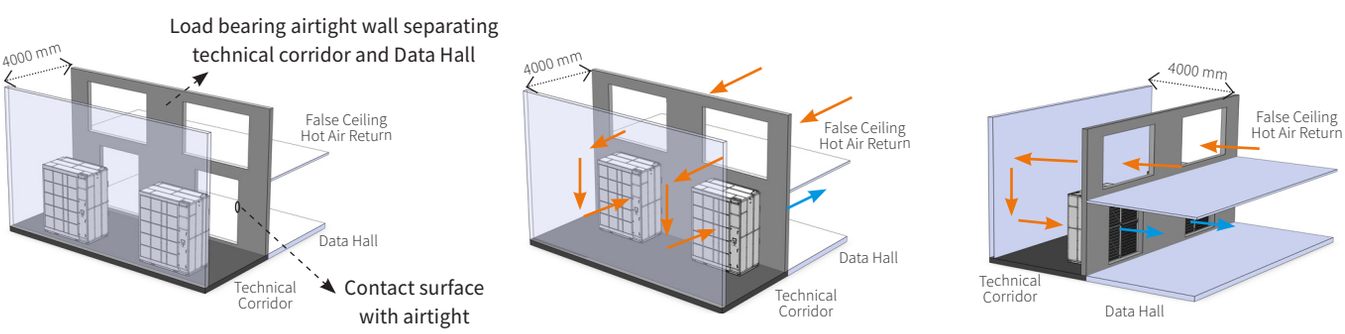
Maintenance
- Front access filters (G4)
- Critical spaces (EC motors, filters, sensors)

Installation and Airflow layout

Standard version



Compact version



Pro-W Slim Fan Wall

Smallest footprint solution on the market

for air & hybrid cooled Data Centre

Cooling capacity range from
100 kW to **150 kW**

Technical data

		Size	
		10	**15**
Width	[mm]	1640	1640
Depth	[mm]	670	670
Height	[mm]	4950	5740
Airflow	[m3/h]	30000	39200
ESP	[Pa]	50	50
Net cooling capacity	[kW]	115	152
EER		25	26
Air Inlet T	[°C]	36	36
Air Outlet T	[°C]	24	24
Water Inlet T	[°C]	20	20
Water Outlet T	[°C]	28	28

The Daikin Fan Wall Pro-W Slim delivers high cooling capacity with superior energy efficiency, significantly reducing power consumption and operating costs. Its compact design minimizes construction requirements and maximize usable space for IT racks. Still, the Pro-W Slim is designed to be suitable for the same traditional construction of a Data Center, with the cooling units installed in a technical corridor physically separated from the IT environment (Data Hall). Additional advantages of the Pro-W Slim are the plug&play approach, the factory-tested control solution and thermal performances and the hot-swappable fan module with safe access from the service side, enabling fast installation and maintenance, minimizing the downtime of the system.

Key Benefits

Advanced control

Plug & Play

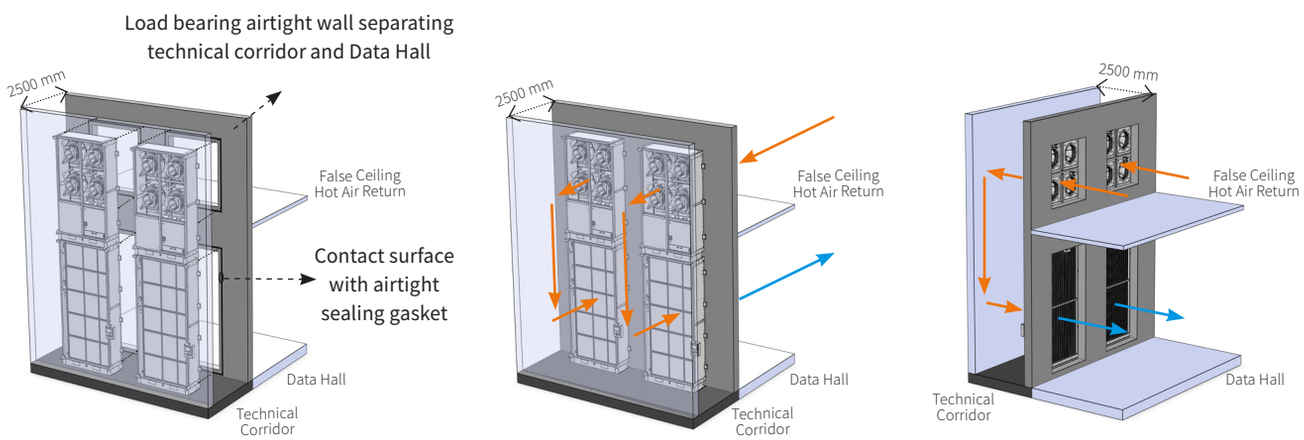
Energy-efficiency

Quick installation

Simplified transportation

Cutting costs

Installation and Airflow layout



Pro-C CRAH

Modular Computer Room

Air Handling Unit

Developed to deliver the highest levels of efficiency & reliability. The unit features an optimized chilled water heat exchanger, a latest-generation EC fan with embedded PFC, and a factory-installed Energy PICV. The advanced, in-house developed control system ensures continuous operation through ATS, Ultracap and built-in redundancies.

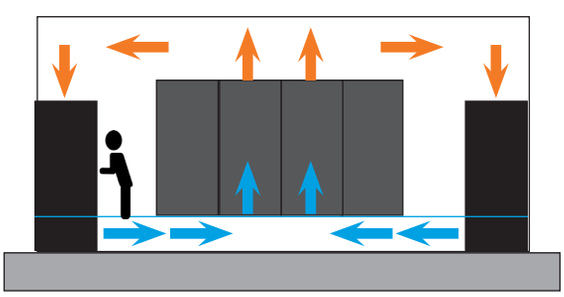
Cooling capacity range
from **30 kW** to **200 kW**

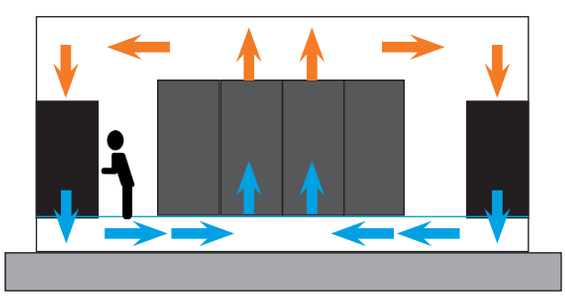
Key Benefits

- In-house development control solution
- Wide list of accessories
- Flexible & modular design
- Optimised Heat Exchanger for higher efficiency
- Latest generation EC fans
- Group operation for reduced operational costs
- Enhanced reliability through ATS & ultracap integration

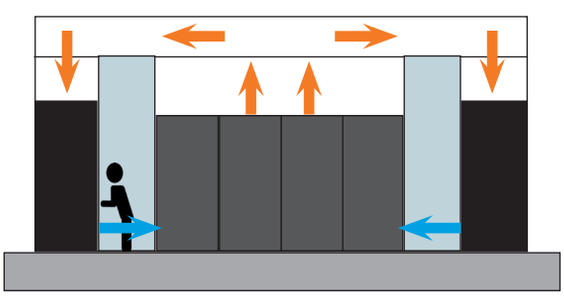
Versatile configuration

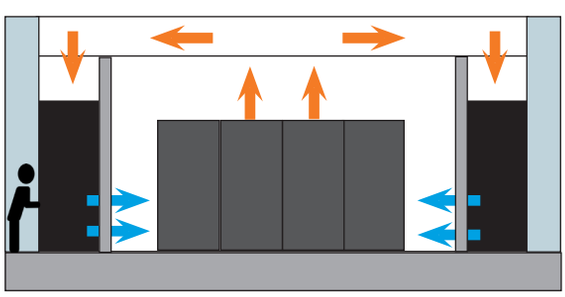
Raised floor





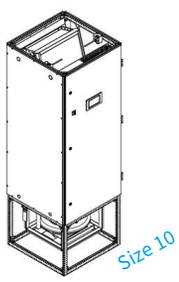
Hard Floor

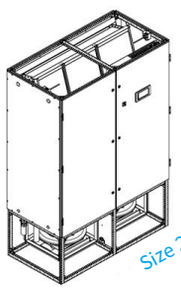


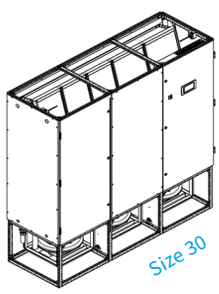


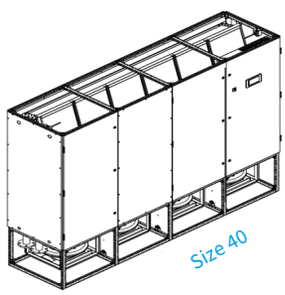
Smart Modular Design for Every Application

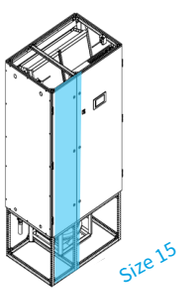
The CRAH range is designed around a **fully modular concept** that allows cooling capacity to be scaled easily and precisely. Each unit is built from standardised fan and chilled-water coil modules, starting from a base configuration with one fan and one coil. Higher sizes increase performance by adding fans and enlarging the heat exchange surface, delivering more airflow and cooling power. Intermediate configurations further refine this scaling by keeping the same number of fans while increasing coil size, to increase thermal exchange and reduce power consumption. This approach ensures a compact design across the range, while providing flexible, tailored cooling solutions for different load requirements.

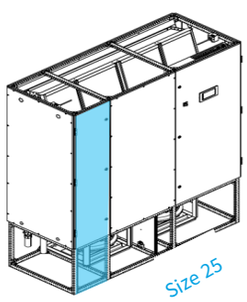


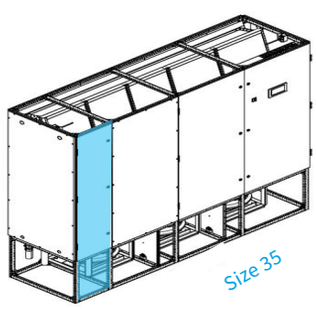










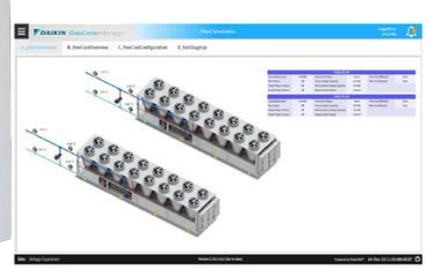


Technical data

		Size						
		10	15	**20**	**25**	**30**	**35**	**40**
Width	[mm]	890	1340	1740	2190	2590	3040	3440
Depth	[mm]	890	890	890	890	890	890	890
Height	[mm]	1975+675	1975+675	1975+675	1975+675	1975+675	1975+675	1975+675
Airflow	[m3/h]	10313	13658	23414	27037	36514	39302	50451
ESP	[Pa]	20	20	20	20	20	20	20
Net cooling capacity	[kW]	37	49	85	97	131	141	181
EER		20.0	20.0	20.0	20.0	20.0	20.0	20.0
Air Inlet T	[°C]	36	36	36	36	36	36	36
Air Outlet T	[°C]	25	25	25	25	25	25	25
Water Inlet T	[°C]	20	20	20	20	20	20	20
Water Outlet T	[°C]	28	28	28	28	28	28	28
Water DP (incl. ePICV)	[kPa]	30	44	40	46	57	53	60

Intelligent Data Centre Manager (iDCM)

iDCM sets a **new benchmark** for external chiller management system in modern Data Centres.



Advanced machine learning algorithms and AI for optimal operation and energy savings during the chiller plant lifetime

Controls up to 20 chillers per single panel, including Primary pumps management and free cooling mode

iDCM is fully suitable for TIER III Data Centres and as a customised execution for TIER IV

BMS integration in Modbus RTU, BACnet MSTP,
Modbus TCP-IP or BACnet IP protocols for high-level monitoring

A streamlined service interface that speeds up Datacenter commissioning

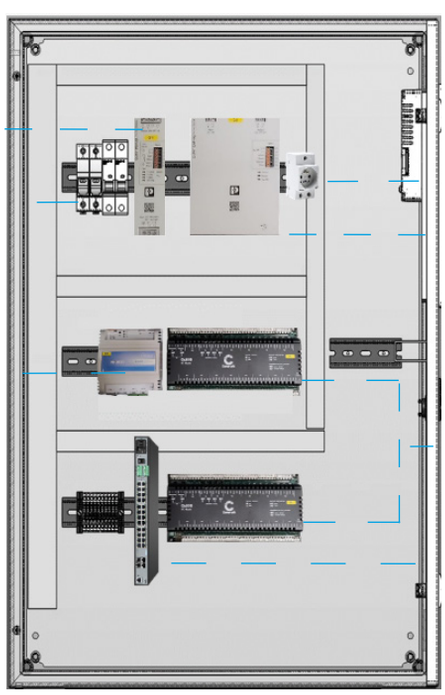
Key Benefits

Reducing Datacenter PUE by **optimizing chiller plant efficiency**

Two optional configurations available: **Mild redundancy** or **Full redundancy**

Reducing required field sensors by **40%** through the integration of iDCM with **Daikin chiller embedded control logic**

Control panel internal components



Coolant Distribution Unit (CDU)

Direct to Chip Liquid Cooling

for Data-Centres and AI-Factory

Compact and powerful, the Daikin CDU is designed to fit any data centre layout, whether installed in-row, at the end of an aisle, or in a technical corridor. It delivers high efficiency with a low approach temperature (ATD down to 2K) and optimized pumping energy thanks to the IE5 motor. Engineered for maximum uptime, the CDU features pump redundancy and hot-swappable components. It precisely controls the leaving temperature on the TCS loop, maintaining constant coolant flow and pressure to respond rapidly to volatile AI thermal loads. It can meet any plant requirement with a wide range of options, including fully stainless-steel pumps, coolant filtration down to 25 µm, fully AISI-316 BPHE, integrated TDH < 5%, and an automatic transfer switch.
Easy routine maintenance activities, with only front and rear service access.

Available in three sizes, from **400 kW** up to **over 2.5 MW**.

Cooling capacity up to **10+ MW** by grouping multiple CDUs on a customizable skid.

Key Benefits

Optimised thermal & hydronic performance

Internally developed advanced control

Precise and reliable temperature control

On-demand customisation

Designed for continuous operation

Technical data

			Cooling Capacity kW					
			400 kW		1000 kW		2000 kW	
FWS Side	Fluid Type		Ethilenic 30%	Ethilenic 30%	Ethilenic 30%	Ethilenic 30%	Ethilenic 30%	Ethilenic 30%
	T_IN / T_OUT	[°C]	20 / 30	30 / 40	20 / 30	30 / 40	20 / 30	30 / 40
	Internal DP	[kPa]	40	14	56	26	56	77
	Stainless Stell Filtration	[µm]	500	500	500	500	500	500
TCS Side	Fluid Type		PG25	PG25	PG25	PG25	PG25	PG25
	T_IN / T_OUT	[°C]	34 / 24	44 / 32	34 / 24	44 / 32	34 / 24	44 / 32
	lpm / kW		1,5	1,2	1,5	1,2	1,5	1,2
	Approach Temperature (ATD)	[K]	4	2	4	2	4	2
	Stainless Stell Filtration	[µm]	down to 25	down to 25	down to 25	down to 25	down to 25	down to 25
	Electrical Power Input	[kW]	3,3	3,0	7,7	7,2	15,6	12,8
	Available Ext. Pressure (low ESP)		230	230	250	230	250	240

Legend : FWS - Facility Water System ; TCS - Technology Cooling System

Top class services

Wherever your data center may be, we are there, too. With a worldwide service and partner network, with over 13,000 employees in Europe, there are more than enough resources to cover all your needs.

6 Reasons to choose Daikin

1. **Preventive Maintenance Plan**: Reliability over time with a detailed plan based on Daikin's 55 years of chiller technology experience, covering all necessary field activities and component checks.

2. **Extended Warranty**: The standard one-year warranty is extendable up to four additional years, providing greater security and peace of mind for customers.

3. **Global Service Availability**: With sales offices in over 170 countries, Daikin ensures service availability and expertise wherever and whenever needed, tailored to customer protocols.

4. **Spare Parts Management**: Timely and professional supply of maintenance parts, with the option to manage spare parts stock directly at the customer's premises for simplified maintenance.

5. **Comprehensive Maintenance Services**: Preventive and corrective maintenance, retrofit solutions, and upgrades to extend equipment life, to improve performance, and ensure consistent reliability.

6. **Daikin on Site (DoS)**: Cloud-based remote monitoring service offers real-time assessment, reporting, and intelligent maintenance to proactively prevent failures and minimise associated costs.

Rental Solutions

Daikin Rental is offering chillers, heat pumps, air handling, and power, to meet your temporary cooling needs while reducing CAPEX and optimising your OPEX.
The Daikin Rental team is available 24/7 to address any situation.

Facility expansion
During facility expansions there is a need to test and adjust equipment, but not sufficient load to keep new or large chillers running. A simple rental solution ensures the correct load and energy efficiency while the expansion new build is being finalised.

Peak load support & seasonality
When the cooling demand of your facility exceeds your system's capacity due to high temperatures or changes to the cooling requirements, Daikin temporary cooling can be used to increase your cooling output and you save on capital expenditures.

Daikin Rental Solutions quickly responds on equipment failures. Our team of experts stands ready to assist you.

Standby cooling
A temporary cooling system is used to back-up critical cooling, or when system redundancy has been reduced.

- Quickly restore normal operations
- Minimise financial losses and downtime
- Peace of mind during unexpected events
- Replacement of older equipment
- Our plans are designed to handle financial risks and ensure the right equipment size

Green Mountain Data Centre

71
Free cooling chillers

8
Control systems

330
Fan array units

115 MW total cooling capacity

For Norway's largest data center, OSL-Hamar (Green Mountain), Daikin delivered cutting-edge solutions that combine efficiency, integration, and long-term sustainability.

iDCM control system energy saving results

Mechanical mode

13%
Energy saving

Free cooling

22%
Energy saving

Scan the QR code to get in touch by visiting our website,
or just enquire at: **data@daikinapplied.eu**

Landing page:
https://www.daikinapplied.eu/data-center-solution