



DAIKIN APPLIED (UK) LTD
Technically better...

Data center solutions



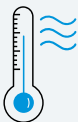
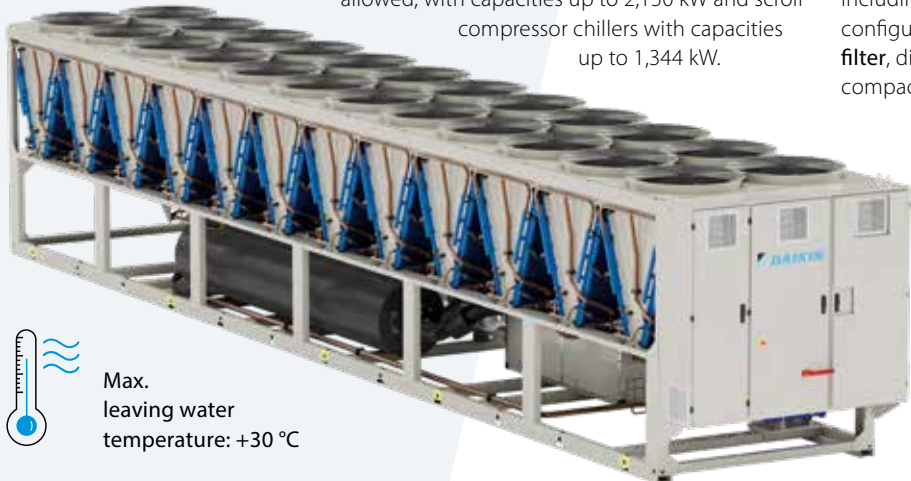
All-in-one solutions from the leading cooling company. Prepared for any hyperscale project.

Daikin portfolio for hyperscale

① 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.



Max. leaving water temperature: +30 °C



Min. ambient temperature: -30 °C



Max. ambient temperature: +55 °C

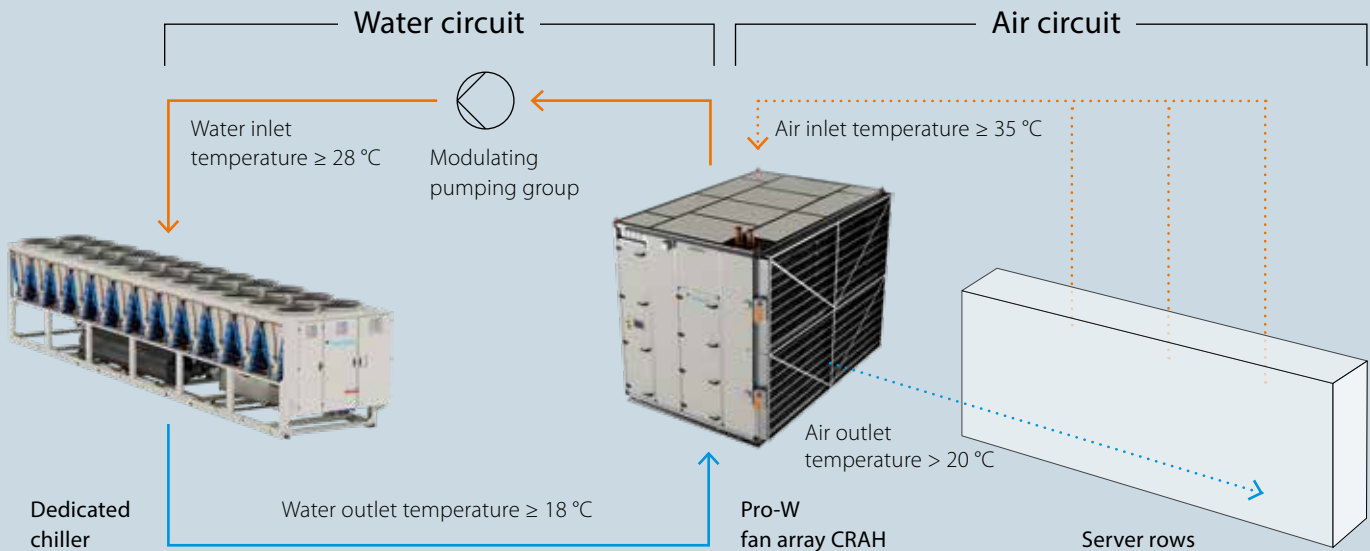
Our chillers' heart

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.



Solution overview



② High efficiency Pro-W fan array CRAHs

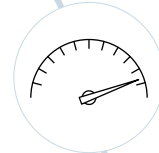
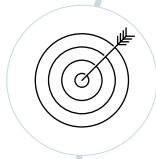
Our dedicated data center Computer Room Air Handling (CRAH) units are designed for large and hyperscale requirements – complete with chilled water coil, advanced controls for real-time demand and cooling capacity **up to 700 kW**.

Compact unit

- Lowest footprint in the market allowing more space for server racks
- 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

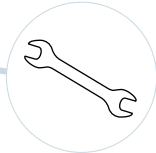


Range

- 4 standard sizes
- Cooling capacity: 175 – 700 kW

High efficiency

- Coil-trace heated EC motors



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)

All in a box

Air filters, control panel, UPS, fan array, cooling coil (up to 8 rows) and dampers are already integrated according to your needs in an aluminium anodised profile casing on a hot deep galvanised base frame. The whole module is pre-tested and ready to use. Just plug and play!

Controls that meet large and hyperscale data center requirements



Pressure independent control valves (PICV) for a stable flow rate, improved temperature control and energy efficiency, reduced total start-up time and maintenance. They can be supplied separately or integrated.

Daikin EC fans with state-of-the-art efficiency and redundancy can be adjusted to your needs.



③ Next-level control systems

Our customised and highly compatible control systems are designed to guarantee the best possible interplay with Daikin chiller plants and CRAHs – even on largest scales.

Our intuitive touch panel user interface gives you full control on every single unit. Sequencing, staging and optimising the chiller plant according to real time demands is practically a childs play with Daikin, including the full monitoring of all relevant system values.

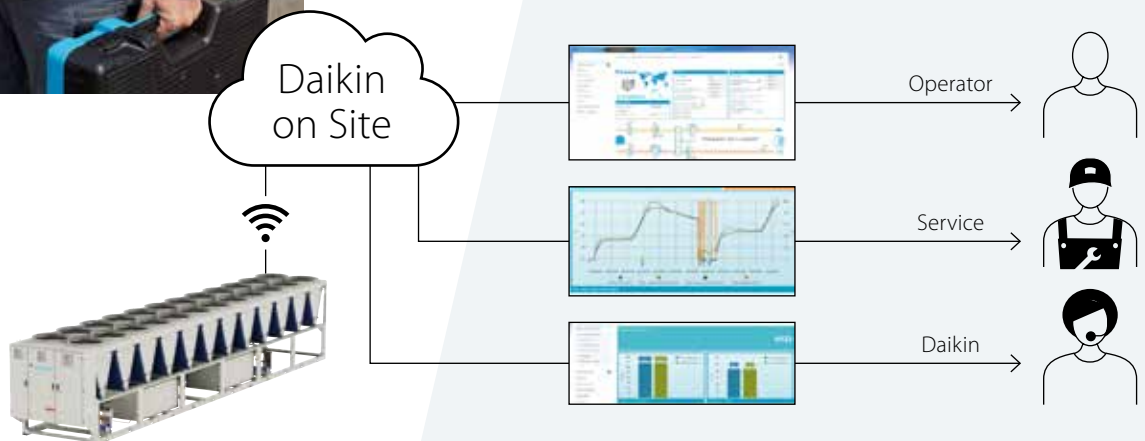


Daikin after sales network

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.

Daikin on Site – our cloud platform services for maximum system stability and performance

Daikin on Site is a cloud-based remote monitoring and control system that provides 24/7 real-time data, monitoring the operations of cooling plants and their proper functionality. It also provides periodic reports for in-depth plant analysis, energy analysis and intelligent maintenance. This continuously evolving service enables plant owners to keep the system efficiency high, take preventive measures and avoid the additional costs associated with breakdowns and downtime.



Your partner on a global scale

You need a reliable partner who goes with you all the way: consultations, system layout, fast delivery and installation of all system components, an intelligent control system, system testing, maintenance, support and help for any possible occurring challenge. And you need this partner here and now.

You need Daikin. With 100 years of cooling experience, with more than 96,000 employees worldwide, with a vast and global network of specialists, with over 110 plants spread over five continents, with large production capacities, and a highly flexible and cutting-edge product portfolio to suit the needs of even the most critical applications, as data centers are.

> 110
production bases

20,000
active patents

\$ 3.7

billion invested in R&D



> 96,000
employees worldwide

> 170
countries – operations
across the globe

> \$ 27
billion in net sales



Daikin Technology Innovation Center in Osaka, Japan



Circular Economy

At Daikin, the future of the world's indoor air is our greatest concern. Daikin envisions a world with healthier indoor air while reducing our environmental impact. Driven by a dedication to achieve net zero CO₂ emissions by 2050, we provide safe, healthy and comfortable spaces throughout the building life cycle using world-leading technology.

Since 2019 Daikin is offering VRV, chillers and heat pumps under the L∞P by Daikin circular economy initiative – a line of products using reclaimed refrigerant. By choosing such a product you actively support the reuse of refrigerant.

We are reclaiming R-410A, R-134a and R-32 refrigerant. Let's avoid the production of over 400,000 kg of virgin refrigerant every year and save 3,590 tonnes of carbon emissions. Together, we can create a healthier planet for future generations.

Daikin's dedicated data center air-cooled chillers are available in L∞P by Daikin version. Are you refurbishing a data center? L∞P by Daikin enables you to allocate your existing refrigerant to your new Daikin chillers. Create your own circular approach with L∞P by Daikin.



Daikin references for data centers

Daikin has the knowledge, experience and technology to support complex hyperscale and colocation data center projects. Our largest data centers supplies per region are detailed below.

Region	Highest cooling capacity per project
Europe	115 MW
Middle East & Africa	61 MW
Latin America	40 MW

Get in touch by visiting our website at the link in the QR code or just enquire at: data@daikinapplied.eu, and we will get back to you shortly.

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



Overview of Daikin chillers for a hyperscale data center

For more information email info@daikinapplied.uk or visit www.daikinapplied.uk

For all Daikin Applied UK,
Daikin Applied Service &
Spares enquiries call us on:
0345 565 2700



Daikin Europe NV participates in the Eurovent Certified Performance programme for Fan Coil Units and Variable Refrigerant Flow systems. Daikin Applied Europe SpA participates in the Eurovent Certified Performance programme for Liquid Chilling Packages, Hydraulic Heat Pumps and Air Handling Units. Check ongoing validity of certificate: www.eurovent-certification.com

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