

## Caleido Tower, Madrid



## Iconic Caleido Tower achieves LEED Gold certification level

**The Caleido Tower, also known as the Fifth Tower, is situated in the business district of Paseo de la Castellana in Madrid.**

One of the newest and most outstanding buildings in the Spanish capital's skyline, the development is configured in an inverted T-shape.

The horizontal body houses a famous private clinic together with a large shopping mall, while the vertical body forms the headquarters of a university campus. Reaching a height of approximately 181 metres, the building occupies a total of 36 floors.

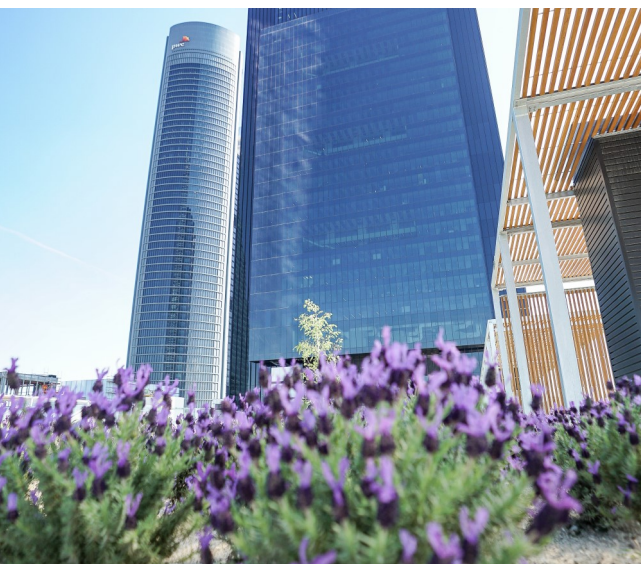
Setting the standard for buildings of the future, this impressive building was inaugurated by King Felipe VI in October 2021.

### Building in excellence

Choosing the sustainable path is no longer a matter of choice, it's an obligation. Daikin has been a fundamental partner throughout the process, helping to achieve secure the prestigious LEED Gold certification level for both "Core and Shell" and "Commercial Interiors" categories.

### Tailored solutions

As every building is unique, it requires a different solution to match its unique properties. Daikin's understanding of how buildings work, coupled with advanced engineering expertise ensured the support and technology capable of achieving a high green building score. This support extends beyond construction throughout the building's lifecycle offering peace of mind by ensuring installations are future-proof.



"Our expertise extends beyond product support, with expert advice from qualified professionals on sustainability, environmental design and assessment. Working together, we reach our clients' green objectives while achieving top performance scores."

### Project Requirements

- ☒ Air conditioning
- ☐ Air curtain
- ☐ Air purification
- ☒ Control
- ☒ Heating
- ☐ Refrigeration
- ☒ Ventilation

### Year of installation

2021

### Installed Systems

- > Direct expansion VRV units
- > Air-cooled chillers
- > Water-cooled chillers
- > Ventilation system comprising 32 air handling units
- > High level air filtration

### Integration delivers substantial benefits

The integration of diverse Daikin HVAC-R technologies contributed to the overall sustainability level of the building, something that was instrumental in enabling the project team to achieve high ratings overall. The Daikin tailor-made total solution, including maintenance contract, lead to a direct contribution of 14 points or 23% of the total LEED score .

The chosen solution consisted of air-cooled and water-cooled chillers, combined together with direct expansion VRV systems. These highly efficient units, with low refrigerant charge, commissioned by Daikin, contributed highly in the EAc1, 3 and 4 categories.

The building's ventilation system was also provided by Daikin. Thirty two air handling units guarantee the correct rate of air renewal, with a high level of filtration for optimal indoor air quality. This contributed to the scoring in the EAc4, EQc2, 3 and 7 categories.

Daikin's cloud-based AI monitoring improves the efficiency, reliability and longevity of HVAC-R installations .

### Ongoing backup and support

Future optimisation of energy consumption at Caleido Tower is ensured via a maintenance contract which includes Daikin's cloud-based AI monitoring. AI early fault algorithms can predict failures, enabling rapid mobilisation of engineers and pro-active resolution, maximising system uptimes. Continuous energy consumption monitoring ensures optimum system performance and cost savings through access to real-time operational data for improved control.

For more information on how Daikin can assist your LEED or BREEAM project, visit:  
[https://www.daikin.eu/en\\_us/installers/support/get-certifications.html](https://www.daikin.eu/en_us/installers/support/get-certifications.html)



Providing comfort and high energy efficiency, a direct expansion VRV system combined with chillers offered the optimum solution for mixed use occupancy.



Air- and water-cooled chillers combine to service a large floorspace across multiple levels. The lower refrigerant charge simplifies maintenance.



Air handling units deliver constant fresh air throughout, which together with the advanced filtration, ensures optimum air quality.