



Coral Hatfield



Coral first past the post with Daikin's 'invisible' air conditioning

A Hertfordshire betting shop is the first UK site to boast 'invisible' air conditioning.

Daikin's VRV i-series was the perfect heating and cooling solution for Coral's new Hatfield premises in the pedestrianised Town Centre. The 78m² shop had no suitable outdoor location for a conventional condensing unit.

The i-series is designed for VRV applications where outdoor units are not possible due to space limitations, architectural considerations or planning constraints. It overcomes these problems by mounting all components indoors with only a grille visible outside – and even that can be hidden from public view.

Coral attended a Daikin launch presentation and quickly expressed an interest in the 'invisible' i-series solution for the planned premises at Hatfield.

The i-series splits the 'outdoor' unit in two – a small-footprint compressor unit that is 701mm high and needs just 600x554mm of floorspace, so it can easily be located in a store room or back office, and a separate heat exchanger unit, typically mounted in a ceiling void and venting to the exterior through a grille.

The Coral system was installed by its nominated contractor, IAC Service Group Limited, a Billericay-based Daikin D1+ installer that has been looking after the betting group's air conditioning systems in London and the South East for the past 15 years.

IAC Contracts Director Vince Mann says: "The heat exchanger unit can be installed virtually anywhere as its maximum static pressure of 150Pa allows fairly lengthy suction and discharge ducts, but in this case we installed it against a grille the rear of the premises.

Year of installation

› 2016

Project requirements

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

Installed systems

- › VRV i-Series
- › Roundflow Cassette
- › Wall Mounted Fan Coil Unit



length between heat exchanger unit and compressor unit is 30 metres, and the maximum height difference between the two is 10 metres.

Maximum piping length between compressor and last indoor unit is 70 metres. Height difference between compressor and indoor units can be up to 30 metres, but the difference between highest and lowest indoor units is limited to 15 metres. These dimensions give significant flexibility with the installation.

Both the heat exchanger unit and the compressor unit operate at just 47dBa, so they cause minimal disturbance indoors.

Daikin says the i-series is suitable for a wide range of properties where locating the outdoor unit is a problem – with no unit outside, planning approval times are reduced so premises can open for business sooner.

The i-series also facilitates faster and more cost-effective installation as the components are easy to transport and handle. Systems are similarly easy to service, and all components are easily reached.

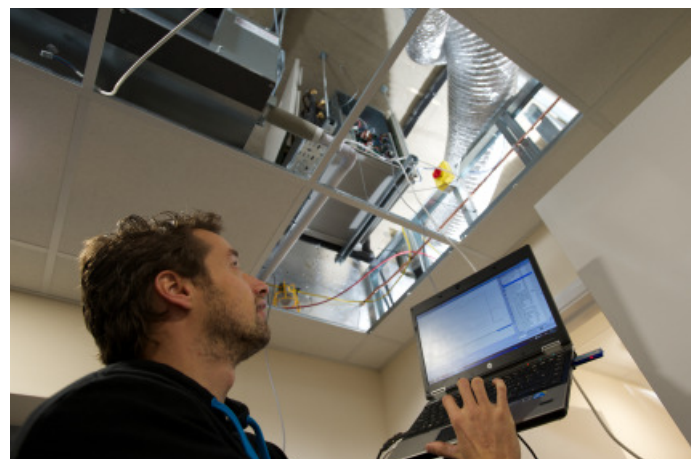
The self-cleaning Roundflow cassette has an automatic daily cleaning cycle to prevent dust accumulations on its décor panel. This cassette has become Coral's first choice for new installations and shop refurbishments after a year-long trial at a Wolverhampton branch showed it to be 49% lower cost to run than a Roundflow cassette with a standard décor panel.

"The compressor unit, serves a wall-mounted fan coil unit in the staff area and two self-cleaning Roundflow cassettes in the customer area."

As it was the first UK installation, engineers from Daikin UK and Daikin Europe attended the system's commissioning in November 2015, shortly before the new betting shop opened.

Coral's 5hp i-series has nominal capacity of 14kW in heating and cooling, COP of 3.8 and EER of 3.20. The i-series system can be connected to a maximum of 10 indoor units from the full VRV IV range as well as air handling units and Biddle air curtains. Maximum pipe

Code	Description	No of units
RRKXYQ5T	VRV i-series outdoor system	1
RDXYQ5T	Condenser	1
FXFQ63A	Roundflow cassette (with self-cleaning décor panel)	1
FXFQ80A	Roundflow cassette (with self-cleaning décor panel)	1
FXAQ-P	Wall-mounted fan coil	1



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