



Synecore installs the first of Daikin's VRV IV i-Series integrated plant

Daikin's new integrated air conditioning system is set to revolutionise the aesthetics of many commercial buildings in highstreets throughout London and the UK. For the first time Daikin's VRV IV i-Series was installed by M&E contractor, Synecore, at Leon Restaurant in Fenchurch Street, London.

Project requirements

Air conditioning systems most commonly require an outside space - either a back alley or roof space - to accommodate the bulky condenser unit, but Daikin have been clever and created a unique system that is entirely installed indoors with only simple grilles visible from the outside, which can be discretely disguised within the existing architecture, or by using signage.

The first application of this all-new patented system was by Synecore for its long standing client and healthy fast food restaurant chain, Leon. Synecore has provided HVAC design and installation for Leon sites for several years, with the majority of the projects taking place across

London, where outside space is at a premium.

Through using the all-new Daikin VRV IV i-Series, the new Leon site in Fenchurch Street was able to open sooner, thanks to the system's unobtrusive design and low operating sound.

Not only is the new Daikin integrated system quiet and more aesthetically pleasing, it is also quicker and more cost effective to install, as the unit is split into two elements – the heat exchanger and compressor.

The heat exchanger is integrated within the ceiling, with an outside vent. It's V-shaped heat exchanger and high performance Fan combination offers higher air flow and static pressure, thus resulting in higher efficiencies compared to a standard outdoor unit installed indoors. The compressor element is compact and can be installed indoors, within an office, storage room, kitchen or technical area.

Being installed inside and within two parts means the amount of pipework is lessened, there is no requirement for a crane for rooftop installation or costly sound insulation.

Year of installation

> 2016

Project requirements

V	Air conditioning
	Air curtain

Air purification
Control

Heating

Hot water

Refrigeration

Ventilation

Installed systems

- > VRV-i system
- > Ducted units



conditioning system, every element is easy to access and the time taken will be no different to a conventional air conditioning system.

"To be able to install such a discrete and highly efficient air conditioning system will hugely benefit many highstreet retailers across the UK, but particularly in London, where sourcing outside space for a condenser can be challenging," explains Synecore's HVAC Manager, Gary Piper.

"Daikin's strapline for this product is 'Keep looking, you'll never find me', which is entirely appropriate. At Leon Fenchurch Street, you will not visibly see any sign of the air conditioning system on the exterior of the building, as it is concealed by a glass canopy. Inside, the units could have been disguised fully, however, Leon prefer the industrial exposed look of the pipework and utilities. For Daikin this is a fantastic opportunity to show how the units look when installed, as you to see the neat heat exchanger units positioned by the front door and in the kitchen area.

The solution

The Daikin VRV IV i-Series can connect up to 10 indoor air conditioning units (cassettes, concealed ceiling, wall mounted, floor standing indoor units or Air Curtains). Synecore connected two 5 HP i-VRV systems – one to serve the restaurant area and one in the kitchen. The compressor was neatly installed in a cupboard under the stairs, completely out of site. The unit is also now available as an 8 HP unit to increase flexibility still further.

Not only is this system much more aesthetically pleasing and practical for retail developments, but it also simple to install and provides fantastic overall efficiency to keep those energy bills down. As for maintenance of the air

HVAC Manager, Gary Piper of Synecore said

"To be able to install such a discrete and highly efficient air conditioning system will hugely benefit many highstreet retailers across the UK, but particularly in London, where sourcing outside space for a condenser can be challenging."

"It was an honour to be the first M&E contractor to install the all-new Daikin VRV IV i-Series. There is no doubt, that I would recommend this system to clients looking for a space saving solution for their properties air conditioning and heating in the future," concludes Piper.

Code	Description	No of units
RKXYQ5T	VRV-i	2
RDXYQ5T	VRV condenser	2
FXSQ-A	Ducted unit	3
BRC1E52A	Premium controller	2





Daikin Airconditioning UK Ltd The Heights Brooklands Weybridge Surrey KT13 0NY Tel: 0845 6419000