SCHOOL

The first priority in an air-conditioning system for schools is to provide students and teachers with a comfortable environment that is conducive to learning. In addition, however, school managers demand climate-control equipment that functions economically. And reliability is critical.
The various people who use the school have their own individual needs and priorities, all of which must be met. For students, who spend most of their time sitting, airflow should be kept even to avoid draughts, with minimal variations in indoor temperature. Teachers require that remote controllers be easy to use and placed in a convenient location, climate settings be adjustable for each room and zone, and air conditioners function quietly. For facility managers, the equipment must be easy enough to manage without calling in a specialist. School managers must have air-conditioning that can be maintained and upgraded at minimum cost and consumes as little energy, human and financial resources as possible. After installation, manufacturer and client contact must be friendly and enduring. Finally, in the event of a rare system failure, back-up equipment must be available, along with an emergency response facility.

Daikin's VRV system has extensive features that meet the customer's needs described above.

- Indoor units to suit any type of indoor environment
- Wired and wireless control systems, as well as centralized control system with full operation management features
- Indoor and outdoor units designed for low noise and vibration
- Extra-long piping allowing installation flexibility of outdoor units
- Low operating load for exceptionally low annual energy consumption
- No dedicated operations manager required
- Easily configurable indoor and outdoor units to fit any detailed zoning plan
- Entire system available from Daikin, for convenient "one-stop shopping"
- Comprehensive service menu
- Compatibility with new refrigerants

By providing a single, comprehensive, flexible and economical air-conditioning system for an entire school, the Daikin VRV system makes a significant contribution to the needs of society.

SCHOOL

Mendel University of Agriculture & Forestry in THE CZECH REPUBLIC

Total floor area is 101,400 m². Construction was completed in 2004.
This building is in Brno — second city of the Czech Republic — in historic Moravia, Mendel University is among the most modern of its type in Europe. The latest model VRVII heat pump and heat recovery systems were chosen in order to provide the flexible environment necessary to cope with varying occupancy patterns in the classrooms and laboratories. Also, since the university's hot water heating system is of limited capacity and scope, VRVII heat pumps provide all the 'top up' necessary on a year round basis. Furthermore, heat given off by computers in the training and analyses rooms is harnessed to heat 50% of the building.

Air-conditioning capacity is 334 Hp, or 900 kW, 116 USRT.

Equipment

Outdoor units:
- 1 unit of 14 Hp heat pump type
- 1 unit of 18 Hp heat pump type
- 1 unit of 24 Hp heat pump type
- 1 unit of 36 Hp heat pump type
- 4 units of 16 Hp heat recovery type
- 3 units of 24 Hp heat recovery type
- 1 unit of 26 Hp heat recovery type
- 1 unit of 38 Hp heat recovery type
- 1 unit of 42 Hp heat recovery type

Indoor units:
- 313 units of Floor Standing Unit Type
- 2 units of Ceiling Mounted Cassette Type <Multi (4) way flow>
- 25 units of Ceiling Mounted Built-in (or Concealed Ceiling Unit) Type
- 4 units of Ceiling Mounted Duct (or Concealed Ceiling Unit Large) Type
- 2 units of Ceiling Suspended Unit Type

Shanghai Children Palace in CHINA

Total floor area is 3,300 m² and 2 stories. Construction was completed in 2003.
In the 1930's, this building was the luxurious house of a top family. Now it is the Children's Palace, where children can gather together for supervised hobbies and games. The flexibility of design and installation of the VRV system perfectly retains the authenticity of such old and artistic architecture. In this instance, the glory of history and the style of today are melded together in the breath of fresh air from the VRV system.

Air-conditioning capacity is 370 Hp, or 1076 kW, 306 USRT.

Equipment

Outdoor units: 37 units of 10 Hp heat pump type
Indoor units: 6 units of Ceiling Mounted Cassette Type <Double (2) way flow>
63 units of Ceiling Mounted Cassette Type <Multi (4) way flow>
41 units of Ceiling Mounted Built-in (or Concealed Ceiling Unit) Type
52 units of Floor Standing Unit Type

Zhejiang University in CHINA

Equipped with the VRV System, Zhejiang University, one of the most famous and historical universities in China, is blessed with a large slice of good fortune. Although the total floor area of the university is over 100,000 m², the wide range of type and capability of the indoor units of the VRV system can fit the size and interior of any room on campus. Most buildings of the university are equipped with the VRV system which serves as an outstanding recommendation to university projects.

Equipment

Outdoor units: 778 units

Indoor units: 323 units of Ceiling Mounted Cassette Type <Double (2) way flow>
858 units of Ceiling Mounted Cassette Type <Multi (4) way flow>
427 units of Ceiling Mounted Built-in (or Concealed Ceiling Unit) Type
14 units of Ceiling Mounted Duct (or Concealed Ceiling Unit Large) Type
214 units of Ceiling Mounted Low silhouette Duct Type
6 units of Ceiling Mounted Cassette Corner Type
2 units of Wall Mounted Unit Type

University of Hong Kong in HONG KONG

Equipment

Outdoor units:	1 units of 10 Hp heat pump type
	2 units of 16 Hp heat pump type
Indoor units:	2 units of Ceiling Mounted Duct Type
	10 units of Ceiling Mounted Built-in Type

The Main Building of the University of Hong Kong is the oldest of the university's structures. Construction of the building started in 1910 and was completed in 1912. It is an imposing institutional structure, supported by granite colonnades in Renaissance style and surmounted by a tall clock tower and four turrets. There are four internal courtyards, two of which have palm tree over 9 m tall. Construction was completed in 2005. VRV II was selected because the long piping meant that the structure of no buildings was damaged.

Colegio Ingles in MEXICO

This building is in Monterrey, Mexico. Total floor area is 4000 m².
Air conditioning capacity is 260 Hp.

Equipment

Outdoor units:	1 units of 20 Hp heat pump type
	8 units of 30 Hp heat pump type
Indoor units:	82 units of Ceiling Suspended Type
	46 units of Ceiling Mounted Cassette Type <Multi (4) way flow>
	4 units of Ceiling Mounted Built-in Type
	7 units of Wall Mounted Type
	2 units of Ceiling Mounted Built-in Type

Oman Medical College in OMAN

This building is in Oman.
Construction was completed in 2004.
Total floor area is 2,400 m².
The main reason for VRV selection was energy savings.

Equipment

Outdoor units:	9 units of 30 Hp cooling only type
Indoor units:	118 units of Ceiling Mounted Cassette Type <Multi (4) way flow>
	2 units of Ceiling Mounted Duct Type

Chinese High Boarding School in SINGAPORE

Total floor area is 10,500 m² and 6 stories. Construction was completed in 2002. Energy savings and low operating costs are points that consultants and users must consider. With individual controls for every room the VRV system easily meets all requirements.

Air-conditioning capacity is 710 Hp, or 2064 kW, 587 USRT.

Equipment

Outdoor units:

68 units of cooling only type

Indoor units:

357 units of Ceiling Mounted Cassette Type <Double (2) way flow>
& Ceiling Mounted Cassette Type <Multi (4) way flow>
& Wall Mounted Unit Type

Vachirawuth College in THAILAND

Total floor area is 1,000 m² and 2 stories.
Construction was completed in 2000.
When smaller external units that can easily be hidden are required, the VRV system is ideal.
Long pipe lengths are another good reason to choose VRV. Our customers are always satisfied.

Air-conditioning capacity is 90 Hp, or 262 kW, 74 USRT.

Equipment

Outdoor units:	9 units of 10 Hp cooling only type
Indoor units:	13 units of Ceiling Mounted Cassette Type <Multi (4) way flow>
	4 units of Ceiling Mounted Built-in (or Concealed Ceiling Unit) Type
	6 units of Wall Mounted Unit Type
	2 units of Ceiling Suspended Unit Type

Hong Guang Technology College Education Building in TAIWAN

Daikin's VRV system consistently earns high acclaim for its energy-efficiency, quiet operation, and comfort. The VRV system installed in this college more than satisfies the customer's needs. Furthermore, the touch-pen-based Intelligent Touch Controller used to control the system enables centralized regulation of all rooms in the college from a single monitoring point.

Air-conditioning capacity is 500 Hp, or 1453 kW, 413 USRT.

Equipment

Outdoor units:	16 units of 30 Hp heat pump type
	1 unit of 20 Hp heat pump type
Indoor units:	138 units of Ceiling Mounted Built-in (or Concealed Ceiling Unit) Type
	1 unit of Ceiling Mounted Cassette Type <Multi (4) way flow>

Ming Der Girls High School in TAIWAN

Total floor area is 50,000 m² and 11 stories. Construction was completed in 2005.
This building is in Taichung City, Taiwan.
The main reason for VRV II selection was energy savings.

Equipment

Outdoor units:	36 units of 10 Hp heat pump type
	11 units of 14 Hp heat pump type
	11 units of 16 Hp heat pump type
Indoor units:	159 units of Ceiling Mounted Duct Type
	82 units of Ceiling Mounted Built-in Type