

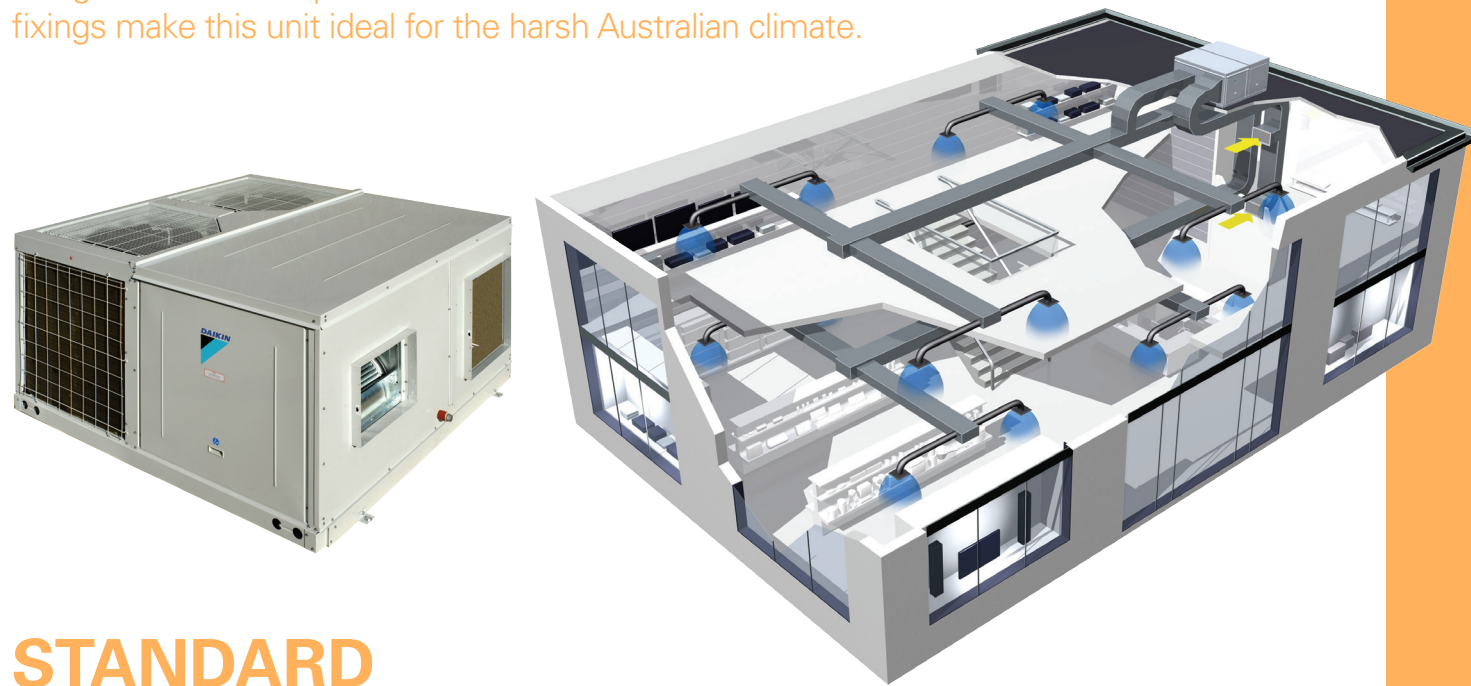


# ROOFTOP PACKAGED UNIT



# DAIKIN ROOFTOP PACKAGED UNIT

Daikin's range of Rooftop Packaged Units has been developed specifically to suit commercial applications and are designed for flexible and easy installation. Along with the light cream colour, the flat top and compact design gives an aesthetic and neat appearance when installed in the line of sight. The durable powder coated sheet metal and corrosion resistant fixings make this unit ideal for the harsh Australian climate.



## STANDARD FEATURES

### BASE BEAM

The base beams are fixed and provide a rigid foundation for the entire unit. The beam has forklift slots and rigging holes for easy handling. It is also designed to allow mounting on a roof curb, the dimension of the roof curb should be followed strictly in accordance with the installation manual.

### FLEXIBLE AIR SUPPLY

All units utilise a belt/pulley driven supply air fan, with a variable pitch pulley to enable a wide range of supply air volumes and external static pressures to be met. Furthermore, where required, the supply air fan motors, pulleys and belts can be upgraded easily on site.

### CONVERTIBLE RETURN AND AIR SUPPLY

Unit can be easily converted from horizontal to vertical (downward) supply and return air duct configuration by relocating the panels and supply air fan mounting.

### POWDER COATED CONDENSATE DRAIN PAN

The sheet metal condensate drain pan is powder coated for corrosion resistance.

### RETURN AIR FILTERS

A 50mm filter slot is provided as standard instances where a field supplied filter is required

### DAIKIN EXCEEDS MEPS ENERGY EFFICIENCY REQUIREMENTS

All air conditioners with a cooling capacity of up to 65kW sold in Australia or New Zealand must now comply with the Minimum Energy Performance Standards (MEPS), as set out in Australian and New Zealand Standards. Daikin air conditioners exceed MEPS requirements, in line with Daikin's commitment to providing energy efficient, quiet, simple to use and reliable air conditioning solutions.



## MAJOR COMPONENTS

### 1. CONDENSER FAN AND MOTOR

The base beams are fixed and provide a rigid foundation for the entire unit. The beam has forklift slots and rigging holes for easy handling. It is also designed to allow mounting on a roof curb, the dimension of the roof curb should be followed strictly in accordance with the installation manual.

### 2. CONDENSER AND EVAPORATOR

The condenser and evaporator coils are manufactured from seamless inner grooved copper tubes mechanically bonded to aluminium fins to ensure optimum heat transfer. All coils are pressure tested to 4.2 MPa through the use of nitrogen and are further leak tested with Helium gas at 1.6 MPa. To improve corrosion resistance, a hydrophilic Gold Fin is provided as standard.

### 3. CASING / STRUCTURE

The UAYQ-C series casing is made of zinc coated galvanised steel sheets. It is further treated with an electrostatic powder coat then over baked to provide a weather resistant finish to suit the harsh Australian climate. The screws are also zinc plated to improved product durability.

### 4. INSULATION

To prevent the likelihood of condensation occurring the unit is equipped with 10mm Polyethylene panel insulation throughout.

### 5. EVAPORATOR FAN AND DRIVE

A belt driven, double width double inlet (DWDI) centrifugal forward curved fan is used as the evaporator fan. This configuration with the factory fitted Variable Pitch Pulley (VPP) allows the unit to meet a wide range of airflows and external static pressures.

### 6. COMPRESSOR

Compressor's used in the UAYQ-C series packaged units are hermetically sealed scroll type. All compressors are provided with an internal overload protection.

### 7. EXPANSION DEVICE

For precise control of refrigerant flow, the UAYQ-C series is equipped with an electric Expansion Valve (EEV).

## OPTIONAL FEATURES

### 3rd PARTY INTERFACE

For applications that require interface with a third party controller, there are control points on the main PCB that allow 2 stages of heating/cooling, on/off and fan only operation.

### BASIC BMS CONNECTION

Unit's standard PCB board provides dry contact for basic BMS connection. Input signal will go to dry contact ON/OFF, COOL/HEAT, and 4 to 20mA temperature adjuster while output signal will come from ON/OFF, COOL/HEAT, ALARM and DEFROST dry contact.

## EXTENSIVE CONTROLS CAPABILITY

This Unit is equipped with more than 27 functional and control capabilities.

Key features include:

- Variable head pressure control for low ambient cooling
- Electronic expansion valves for precise refrigerant control
- Self diagnostic and error warning codes
- Standard 7days programmable timer and LCD thermostat
- Sequential compressor and load balancing operation
- Simple BMS and third party interface
- Ability to connect remote sensor with 25m cable
- Simple auxiliary booster with 3 adjustable differential settings
- Auto-changover (heat/cool) functionality can be configured on the controller





Model		UAYQ60CY1A	UAYQ90CY1A	UAYQ120CY1A	UAYQ150CY1A	UAYQ180CY1A	UAYQ210CY1A	UAYQ250CY1A	UAYQ300CY1A
Rated Capacity (Cooling) <sup>1,2</sup>	Net kW	16.27	26.54	34.42	42.81	53.11	63.69	68.38	84.2
Rated Capacity (Heating) <sup>1,3</sup>	Net kW	15.24	25.68	35.78	43.1	56.1	63.95	72.3	91
Rated Power Input (Cooling) <sup>4</sup>	kW	4.87	8.18	10.95	13.64	17.15	20.53	23.11	31.2
Rated Power Input (Heating) <sup>4</sup>	kW	4.69	7.33	10.84	12.86	15.54	18.58	21.42	27.9
Rated EER (Cooling) <sup>4</sup>	kW/kW	3.34	3.24	3.14	3.14	3.1	3.1	2.96	2.7
Rated COP (Heating) <sup>4</sup>	kW/kW	3.25	3.5	3.3	3.35	3.61	3.44	3.38	3.26
Power Supply	V/Ph/Hz	380-415 / 3N~/50	380-415 / 3N~/50	380-415 / 3N~/50	380-415 / 3N~/50	380-415 / 3N~/50	380-415 / 3N~/50	380-415 / 3N~/50	380-415 / 3N~/50
Refrigerant Charge	kg	5.5	6.1	5.8 + 5.8	7.2 + 7.2	8.7 + 8.7	10.4 + 10.4	11.6 + 11.6	11.6 + 11.6
Refrigerant Type / Control		R-410A / EEV							
Evaporator Air Flow Rate	l/s	732	1,560	2,030	2,670	3,160	3,450	3,920	4,540
External Static Pressure	Pa	59	147	147	147	206	206	206	206
Condensate Drain Size	mm	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
Condenser Air Flow rate	l/s	2,313	3,884	5,664	5,710	6,090	9,534	10,000	10,000
Sound Pressure Level <sup>5</sup>	dB(A)	67	68	64	65	68	70	70	70
Sound Power Level	dB(A)	82	82	83	83	87	90	90	90
Compressor Quantity		1	1	2	2	2	2	2	2
Dimensions height	mm	1,110	1,150	1,028	1,130	1,048	21,302	1,454	1,454
Dimensions width	mm	1,060	1,638	2,209	2,209	2,209	2,209	2,209	2,209
Dimensions depth	mm	1,740	2,063	2,113	2,113	2,670	2,670	2,670	2,670
Net Weight (without packaging)	kg	310	445	580	610	830	880	1020	1020

Notes

- \*1 = Net capacities include indoor fan motor heat
- \*2 = Cooling capacity is based on indoor temp. 27°CDB, 19°CDB, and outdoor temp. 35°CDB.
- \*3 = Heating capacity is based on indoor temp. 20°CDB, and outdoor temp. 7°CDB, 6°CWB.
- \*4 = Power Input and EER follow AS/NZ3813:1.2
- \*5 = Microphone position: 1m away from every side of the unit and 1m above floor level. Logarithmic mean of 3 microphone position.
- \*6 = All units are equipped with Fixed Speed, hermetically sealed scroll type compressors

ASSUMPTIONS

All representations made in Daikin marketing and promotional material are based on the assumptions that the correct equipment has been selected, appropriately sized and installed in accordance with Daikin's installation instructions and standard industry practises.

QUALITY CERTIFICATIONS

Daikin Industries Limited was the first air conditioning equipment manufacturer in Japan to receive ISO 9001 certification. All Daikin manufacturing facilities have been certified to ISO 9001 Quality Management System requirements. ISO 9001 is a certificate for quality assurance concerning design, development, manufacturing, installation and related service of products manufactured at that factory.

ENVIRONMENTAL CERTIFICATIONS

Daikin Industries Limited has received ISO 14001 Environmental Certification for the Daikin production facilities listed below. ISO 14001 is an international standard specifying requirement for an environmental management system, enabling an organisation to formulate policy and objectives, taking into account legislative requirements and information about significant environmental impacts. It applies to those environmental aspects within the organisation's control and over which it can be expected to have an influence.

The certification relates only to the environmental management system and does not constitute any endorsement of the products shipped from the facility by the International Organisation for Standardisation.

Daikin Australia Pty Limited (ISO 9001)  
CEC 23256 May 12, 2006  
Sydney, Brisbane, Adelaide, Melbourne, Newcastle, Townsville, Perth



Daikin Australia Pty Limited (ISO 14001)  
CEM 20437 October 27, 2006  
Sydney, Brisbane, Adelaide, Melbourne, Perth



Head Office / Tokyo Office  
Shiga Plant (Japan)  
Sakai Plant (Japan)  
Daikin Industries Ltd (Thailand)  
Yodogawa Plant (Japan)  
Daikin Australia Pty. Ltd.

Certificate number: EC02J0355  
Certificate number: EC99J2044  
Certificate number: JQA-E-80009  
Certificate number: JQA-E-90108  
Certificate number: EC99J2057  
Certificate number: CEM20437

Residential Air Conditioning Manufacturing Div (ISO 9001)  
JQA-0496 May 2, 1994 (Shiga Plant)

Commercial Air Conditioning and Refrigeration Manufacturing Div (ISO 9001)  
JMI0107 December 28, 1992  
(Kanaoka Factory and Rinkai Factory at Sakai Plant)

Industrial System and Chiller Products Manufacturing Div (ISO 9001)  
JQA-0495 May 16, 1994 (Yodogawa Plant and Kanaoka Factory and Kishiwada Factory)

Daikin Europe N.V (ISO 9001)  
Lloyd 928589.1 June 2, 1993

Daikin Industries (Thailand) Ltd  
JQA-1452 September 13, 2002 (ISO 9001)



DEALER

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The specifications, designs and information in this brochure are subject to change without notice. Unit colours shown are as close as possible to actual unit colours. Colours depicted in this brochure may vary slightly.