



PLXDPID2040



SOLIDÉ³
EFFICIENT • EXTREME • EASY

Air-Cooled Rooftop Package

UATQ-C series



 COOLING ONLY [50Hz]

R-410A

Product Features



Air Cooled Rooftop C Series

1 High efficiency

UATQ-C series comes with high efficiency scroll compressors, optimized heat exchangers and high-performing fans which enables the unit to deliver top performance in both standard and high ambient temperature conditions. At the same time, it also ensures high energy efficiency and reduced power consumption.

Model	UATQ60C	UATQ90C	UATQ120C	UATQ150C	UATQ180C	UATQ210C	UATQ240C	UATQ300C
EER @ 35°C (W/W)	3.81	3.46	3.58	3.52	3.43	3.52	3.49	3.49
Efficiency @ 48°C (kW/TR)	1.38	1.49	1.52	1.52	1.52	1.46	1.51	1.52

2 Wide operating range

UATQ-C series rooftops are specifically designed for high ambient application and are capable of operating at an outdoor ambient of up to 52°C.

19°CDB

52°CDB



3 Flat top design

The units' flat top design allows it to be stacked up in the warehouse and during transportation. This ensures both warehouse and container space are optimized.



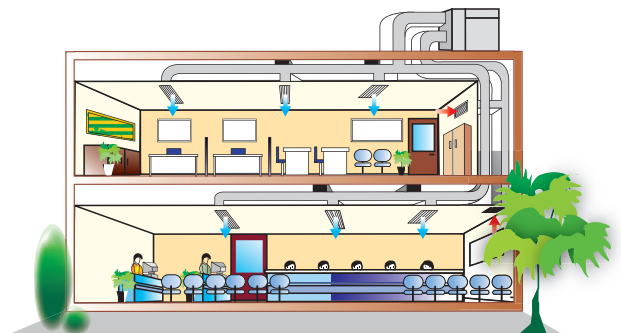
4 Plug-n-play installation

Additional piping works are not required as both the indoor and outdoor sides are pre-connected. The horizontal air discharge from the top and return air from the bottom makes the duct design straightforward. Once the ductwork is installed, the remaining is just to connect electricity to the unit.



5 Air discharge and air return

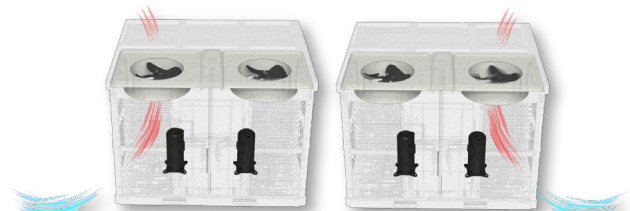
The UATQ-C series is available in horizontal air discharge only. It is designed with air discharge on the top, and return air from the bottom for easy duct design.



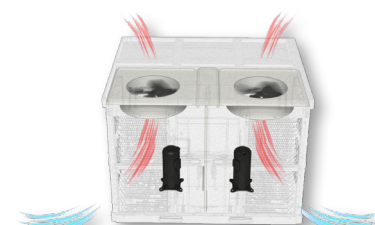
6 Independent refrigerant circuit

The unit is designed with two independent refrigerant circuit, where user can control each individual system separately. This also allows the unit to run at part load when less capacity is required.

**Applicable for UATQ120C and above only.*



Partial Loading



Full Load

7 External 3rd party testing

The UATQ-C series have undergone stringent 3rd party testing by INTERTEK, an internationally recognized certification body, to verify on its designed performance data.



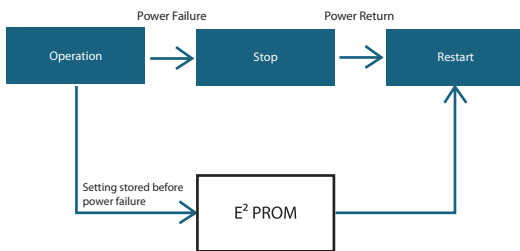
10 Anti-corrosion heat exchanger

Hydrophilic Gold Fin coated coil is offered as a standard coil to further prolong unit life span under corrosive environment. Coil guard is incorporated to protect heat exchanger from accidental damage which may happen during transportation, handling and installation.



8 Auto random restart

When the unit stop suddenly due to power failure during operation, it will automatically restart its last setting condition once the power is resumed. However, the compressors will restart randomly if more than one unit are installed under the same phase of power.



**This feature can be de-activated*

9 Safety protection features

- > High and low pressure protection
- > Phase sequence protection
- > Compressor and current overload protection
- > Minimum compressor run and off time protection
- > Sensor fault indication

Controller Features

Microprocessor Unit Controls

UATQ-C series is equipped with microprocessor controller. Every unit comes with a microprocessor operated handset. It has a built-in anti recycle timer to prevent compressor from short cycling. The compressor, condenser motor and evaporator motor starts up in sequence to prevent power surge. Microcontroller records the compressor run time internally to ensure balance usage of compressor.

Handset functions:

- > Real Time Clock with 7 Days Programmable Timer with 2 sets/day
- > Temperature setting
- > Energy saving mode
- > 4 wire thermostat
- > Compressor balance loading to optimize lifetime
- > Key lock function
- > Error code display



Component Features

1

Unit casing is made of zinc coated galvanized steel sheets. It is further coated with electrostatic powder coat and then oven-baked for a tough and lasting resistant finish. All parts are fastened with zinc plated screws to further prevent unit from rusting.

3

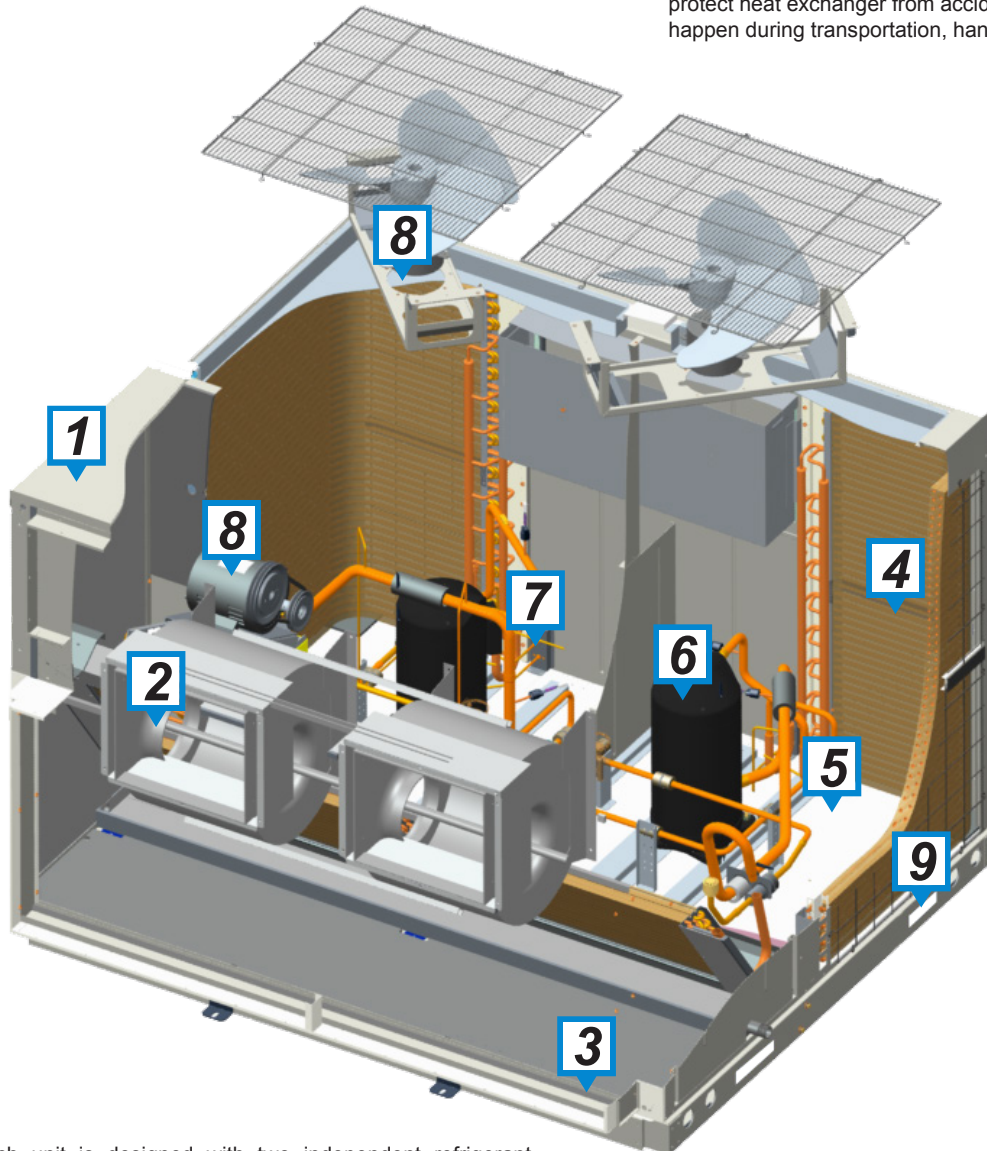
The unit comes with saranet pre-filter as a standard. 2 inches rail for return air filters is provided as standard for field supplied filter casement installation. The sheet metal condensate drain pan is powder coated to prevent corrosion.

2

The unit comes with Double Width Double Inlet (DWDI) centrifugal, forward curved type blower. It is mechanically, dynamically balanced and mounted on a rigid shaft in a self-aligned bearing block. The belt driven evaporator motor allows the change of pulley on-site to accommodate different static pressure and air flow requirement.

4

Evaporator and condenser coils are made of seamless inner grooved copper tubes which will be mechanically bonded with aluminum fins to ensure optimum heat transfer. All coils are tested against leakage by nitrogen holding at 609psig and highly precise helium leak test at 235psig. Hydrophilic Gold Fin coated coil is offered as a standard coil to further prolong unit life span under corrosive environment. Coil guard is incorporated to protect heat exchanger from accidental damage which will happen during transportation, handling and installation.



5

Each unit is designed with two independent refrigerant circuit. It allows the system perform optimum part loading with independent Thermal Expansion Valve (TXV), filter drier and high/low pressure switch.

**Applicable for UATQ120C and above only.*

6

The high efficiency, low noise and hermetically sealed scroll compressor are used in UATQ-C series to give it the highest possible performance. All compressors are equipped with an internal overload protection and crankcase heaters as standard.

8

The evaporator and condenser fan motor used in UATQ-C series are rated IP55 protection index with Class B and Class F insulation respectively. The condenser fan motor is designed with dust proof bearing to further enhance durability and smooth operation all year round.

7

Additional valves are provided for site installation of pressure gauge and low ambient kit.

9

The rooftop foundation is rigid, with dedicated holes for forklifting and rigging. This is for better handling during transportation and installation.

Air Cooled Rooftop Package C Series



UATQ60 / 90 / 120 / 150 / 210 / 240 / 300C

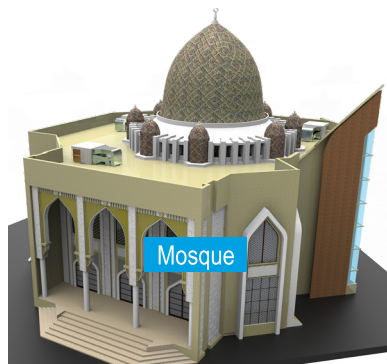
Specification for Rooftop C Series

Model		UATQ60C	UATQ90C	UATQ120C	UATQ150C	UATQ180C	UATQ210C	UATQ240C	UATQ300C	
Cooling Capacity [1]	Btu/hr	61 000	90 000	121 500	150 000	181 000	213 000	241 000	304 000	
	kW	17.88	26.38	35.61	43.96	53.05	62.43	70.63	89.10	
Cooling Capacity [2]	Btu/hr	51 780	77 000	103 300	129 000	156 000	184 000	208 000	258 000	
	W	15.18	22.57	30.28	37.81	45.72	53.90	60.96	75.62	
EER [1]	W/W	3.81	3.46	3.58	3.52	3.43	3.52	3.49	3.49	
Evap.	Airflow	CFM	2 000	2 800	4 400	5 000	7 000	7600	8 000	9 000
	External Static Pressure	Pa	100		150		200		250	
Cond.	Power Supply	V/Ph/Hz	380-415/3/50							
	Sound Pressure Level	dBA	61	62	65	67	68	69	70	72
Height	mm	1 150	1 350	1 390		1 690	1650		1950	
Width	mm	1 280		1 965			2410			
Depth	mm	1 520		1 630		1 905	2 030			
Net Weight	kg	350	380	590	650	840	930	940	1 090	

[1] Nominal cooling capacity based on 27°C DB / 19°C WB indoor and 35°C DB outdoor.

[2] Nominal cooling capacity based on 29°C DB / 19°C WB indoor and 46°C DB outdoor.

Rooftop Application



Optional Accessory

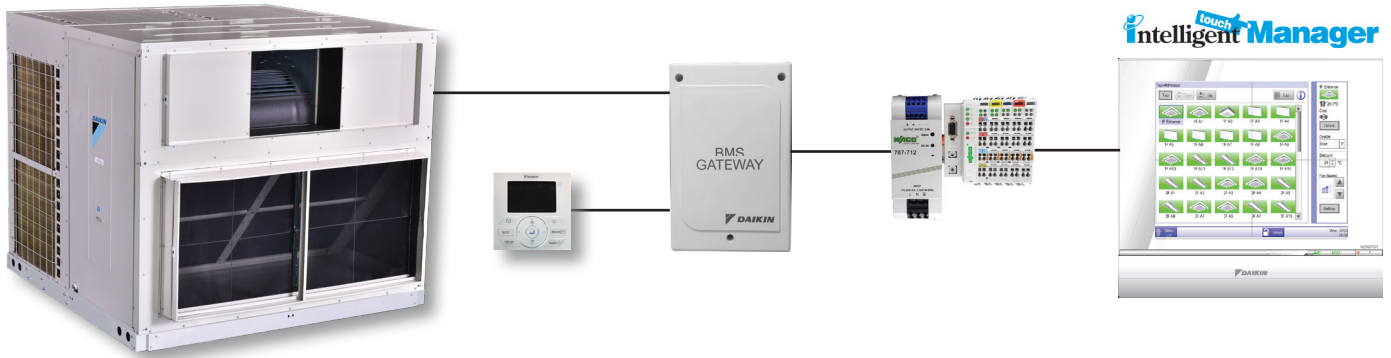
BMS Gateway (BAG)

BAG provides a cost-effective way to control and monitor Daikin rooftop system through long distance Building Management System (BMS).

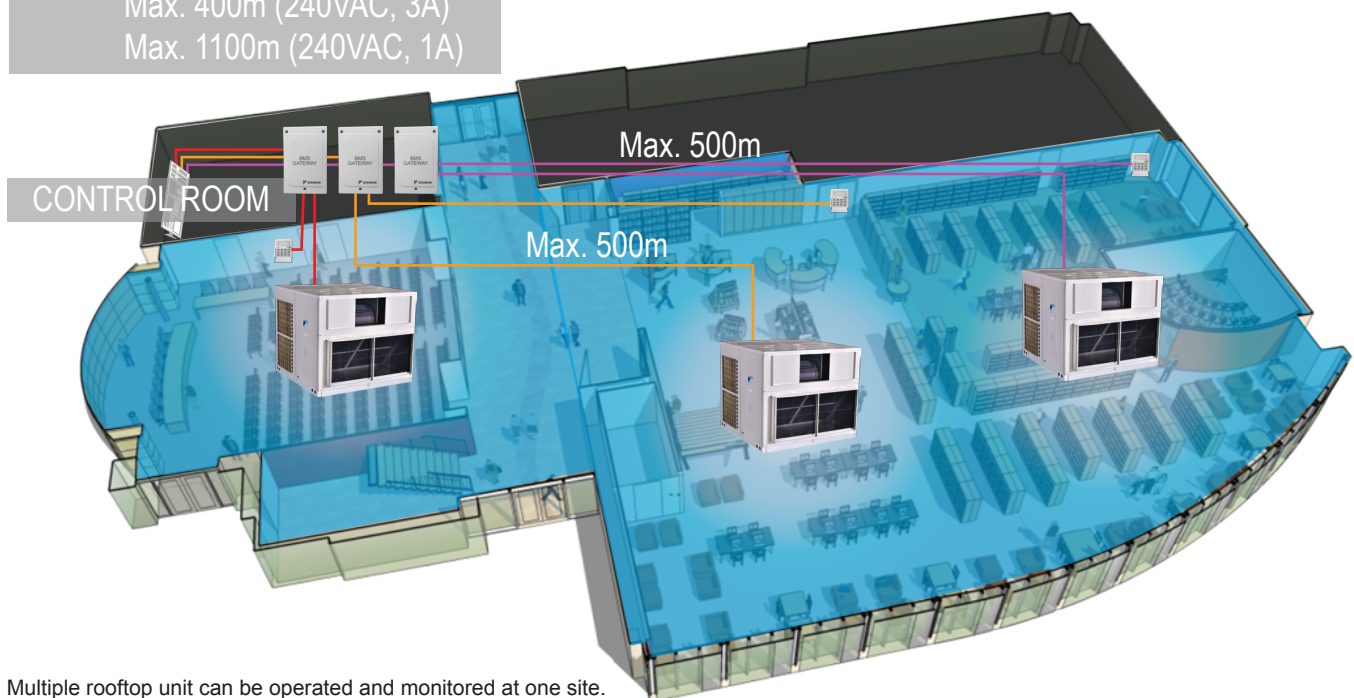
Advantages:

- Short installation time
- Simple setup and convenient operation
- Do not require highly trained installer or operator
- Eliminate nuisance handset setting change by the public

Part No: R04084134740 CTRL MODULE, BAG DAIKIN		
Inputs	Input Controls	Applications
Input contacts	Force off / unchange	Smoke alarm system
	On/off	Long distance unit on/off control
	Operating mode	Long distance unit operating mode control
	Fan speed	Long distance unit fan speed control
Outputs	Output Indications	Applications
Relay outputs	On/off Status	Long distance unit operation status monitoring
	Operating mode	
	Unit faulty / normal	



Input: Max. 300m (12VDC, 100mA)
 Output: Max. 400m (24VDC, 100mA)
 Max. 400m (240VAC, 3A)
 Max. 1100m (240VAC, 1A)



Multiple rooftop unit can be operated and monitored at one site. Air-conditioning system can be managed easily by anyone.

Specification Guide

General features

The rooftop unit shall consist of compressors, fan motors, condenser coils, evaporator coil, expansion valves, refrigerant piping and electrical components.

The unit shall be assembled, complete with internal wiring, fully charged with R-410A refrigerant and undergo strict testing & quality check before delivery.

The rooftop unit shall be capable of operating from 19°C to 52°C ambient temperature without failure.

Compressor

Compressor shall be hermetically sealed, high efficiency and low noise scroll type compressor. The compressor shall be equipped with an internal overload protection.

Evaporator coil and condenser coil

Evaporator coil and condenser coil shall be manufactured from seamless inner grooved copper tubes, which are mechanically bonded to aluminium fins.

All coils shall be tested against leakage by nitrogen holding at 609psig and highly precise helium leak test at 235psig.

Evaporator coil shall be manufactured with hydrophilic gold fin coating to provide good effect to efficient drainage of condensate water.

Condenser coil shall be manufactured with hydrophilic gold fin coating, which ensure longer life span even under corrosive environment.

Evaporator fan & motor

Blower shall be DWDI centrifugal, forward curved type. It shall be mechanically and dynamically balanced and being mounted on a rigid shaft in self aligned bearing block. The blower shall be designed with belt driven evaporator motor that has a Class B insulation and splash proof enclosure of IP55. The design shall allow for change of pulley in order to accommodate different static pressure and air flow requirement.

Condenser fan & motor

Condenser motor shall be designed with a Class F insulation and splash proof insulation of IP55. The motor shall be equipped with dust proof bearing. Condenser fan shall be direct driven propeller type.

Refrigerant Circuit

The unit shall be able to operate at part loading depending on the requirement of the application. To allow the unit to run at part load when less capacity is required.

Each refrigerant circuit shall have an independent Thermal Expansion Valve (TXV), filter drier and high / low pressure switch.

Easy access valves shall be provided for site installation of pressure gauge and low ambient kit.

Casing/ structure

The casing and structure of the unit shall be made from zinc coated galvanized steel sheets and further coated with an electrostatic powder for better resistance against the weather.

Filter

A 2 inch filter rail shall be provided in the unit for site installed filter.

Control panel

The controller in the unit shall be electronically controlled with microcontroller, and shall be supplied with a wired remote controller.

External 3rd party testing

The unit shall have a 3rd party test report by an internationally recognized certification body, to verify on its designed performance data.

Dealer

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