DAIKIN

High Efficient Rooftop Unit

UATQ-C Series

5 - 25 Ton

هـيـئـة الإمـارات للمـواصـفـات والمـقـاييـس
Emirates Authority For Standardization & Metrology

ECAS

EWA
هيئة الكهرباء والماء
Electricity & Water Authority
Kingdom of Bahrain

مجلس أبوظبي للجودة والمطابقة
ABU DHABI QUALITY & CONFORMITY COUNCIL

High Ambient

R-410A

Cooling Only 50Hz

Exceptional performance in a compact design

Main Features

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 up to 3.8L W/W efficiency.

High Ambient Design

- Specially designed to deliver top performance in both standard and high ambient temperature conditions, in terms of capacity and efficiency. Less than 15% capacity deterioration at T3 with continuous operation up to 52°C.
- Higher efficiency: EER up to 4.05 W/W (13.51 Btu/hr/W)

External third party testing

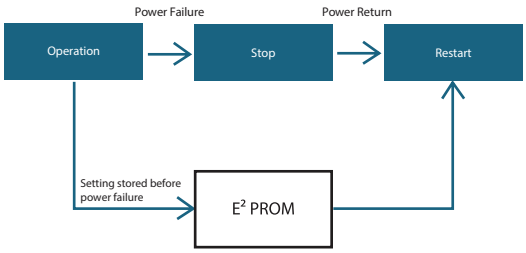
The UATQ-C series have undergone stringent 3rd party testing by INTERTEK, an internationally recognized certification body, to verify on its designed performance data.

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 52ºC.

Auto random restart

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



**This feature can be de-activated*

Compact and light

The flat top design of the unit allows for maximum utilization of warehouse and container space, while the light frame ensures ease of handling and installation.

External Service

Pressure can be checked without opening the unit.

Indoor air quality

- The standard washable filter can easily be accessed for facilitated maintenance.
- An additional field supplied filter can easily be installed on the 2 inch rail to meet the indoor air quality requirements of the application.

Flexibility of Air supply

A belt driven fan is used such that the air volume and static pressure needed can be adjusted according to the requirements. This flexibility allows for wider application and offers the possibility to reach the best working conditions considering the unit's characteristics.

Anti-corrosion heat exchanger

Hydrophilic Gold Fin coated coil is offered as a standard coil to further prolong unit life span

Phase Protection

A three phase line monitor module protects the unit components against phase less, phase reversal and phase unbalance.

Independent Staged Cooling

The unit is designed with two independent refrigerant circuits, each controlled separately for maximum part load efficiency and durability.

Coil Guard

The condenser coil is protected by coil guard to prevent accidental damage during transportation, handling and installation.

Dust Proof Sealed Bearings

Ensures the reliability of outdoor motor and smooth operation all year around.

Controller Features

- Real time clock with 7 days programmable timer.
- Temperature setting of 20 ºC to 30 ºC.
- Energy saving mode.
- 4 wire thermostat
- Compressor balance loading to optimise lifetime.
- Key lock function.
- Error code display
- Balance use run-time of compressors

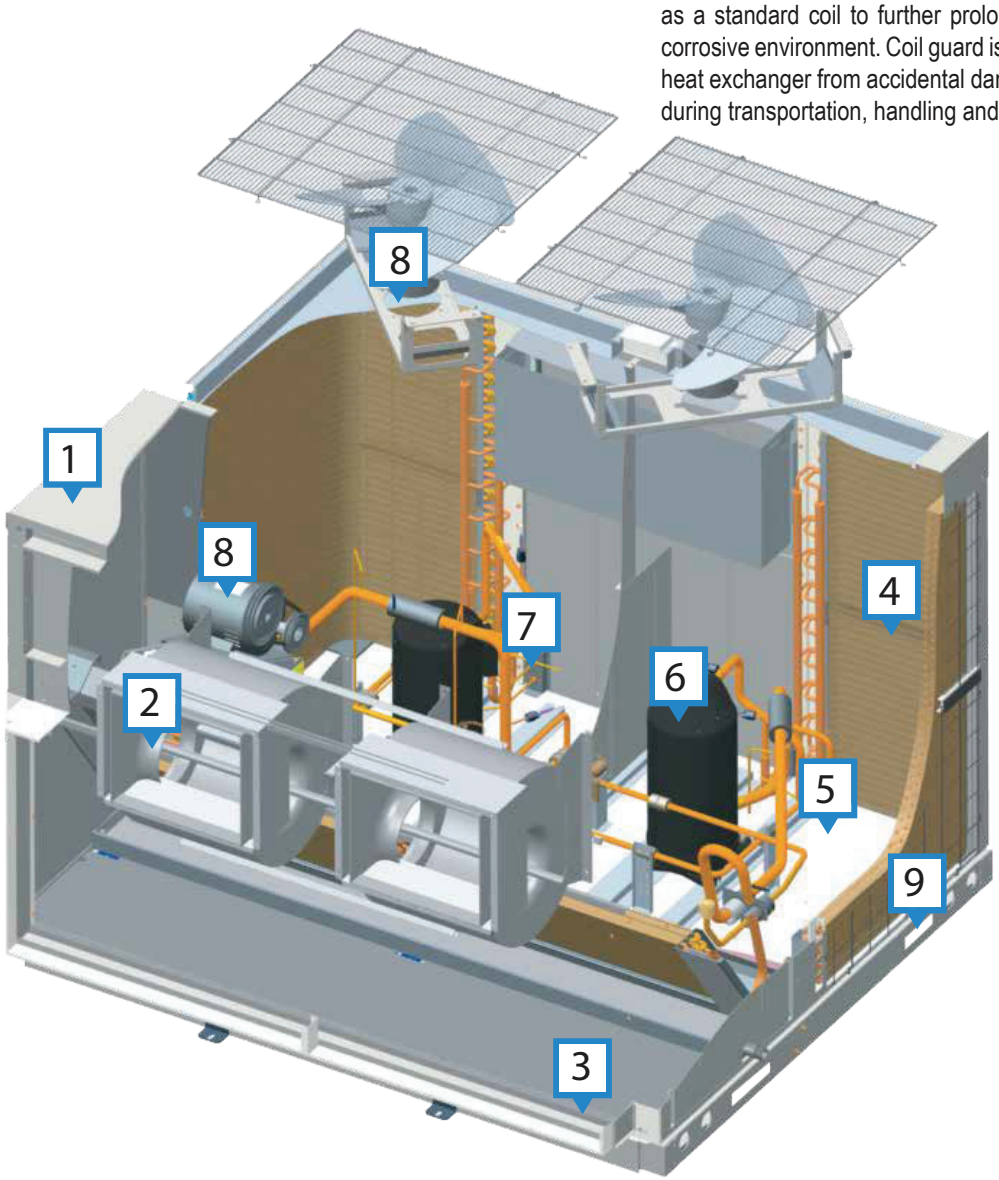
Component Features

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.

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.

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.

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.

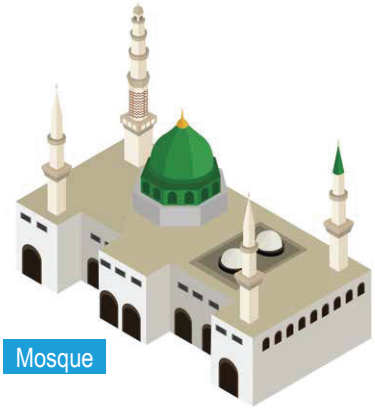
6 The high efficiency, low noise and hermitically sealed scroll compressor are used in UATQ-C series to give it the highest possible performance. All compressors are equipped with an internal overload protection and crankcase heaters as standard.

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

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.

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

Rooftop Application



NetPro Dual (Modbus Gateway)

NetPro Dual enables air-conditioner (A/C) to interact with BMS systems

Advantages

- Short installation time, simple setup and convenient operation
- Does not require highly trained installers
- No Independent power supply required
- Complete with casing cover
- Enable management to monitor and control A/C effectively and efficiently

NetPro Dual (Modbus Gateway)

Modbus function codes are as below:

Addresses	Read/ Write (R/W)	Name and values	Desription
30 xxx	R	Modbus status	Indicate Modbus readiness
	R	Indoor unit connection status	Indicate connection status
31 xxx	R	Indoor unit cooling setpoint	Indicate minimum and maximum setpoint (cooling)
	R	Indoor unit heating setpoint	Indicate minimum and maximum setpoint (heating)
32 xxx	R	On/Off status and fan speed	Indicate unit On/Off status and fan speed selection
	R	Operation mode	Indicate operation mode
	R	Indoor unit setpoint	Indicate unit setpoint
	R	Error code	Indicate error type
	R	Room temperature	Indicate room temperature measured
	R	Indoor unit temperature sensor	Indicate unit temperature sensor
	R	Compressor status	Indicate compressor status
42 xxx	W	On/ Off status and fan speed	Write unit On/Off status and fan speed selection
	W	Operation mode	Write operation mode
	W	Set temperature	Write set temperature

Cooling Only

Model			UATQ60C	UATQ90C	UATQ120C	UATQ150C	UATQ180C	UATQ210C	UATQ240C	UATQ300C
Cooling T1 (1) 35°C (Nominal)	Capacity	Btu/h	61,000	90,000	121,500	150,000	181,000	213,000	241,000	304,000
	Capacity	kW	17.88	26.38	35.61	43.96	53.05	62.43	70.63	89.10
	EER	(Btu/h) / W	13.01	11.80	12.20	12.00	11.70	12.00	11.90	11.90
	EER	W/W	3.81	3.46	3.58	3.52	3.43	3.52	3.49	3.49
	PI	kW	4.69	7.63	9.96	12.50	15.47	17.75	20.26	25.54
Cooling T3 (2) 46°C	Capacity	Btu/h	51,780	77,000	103,300	129,000	156,000	184,000	208,000	258,000
	Capacity	kW	15.18	22.57	30.27	37.81	45.72	53.93	60.96	75.61
	EER	Btu/h	8.80	8.55	8.60	8.55	8.55	8.95	8.70	8.45
	PI	kW	5.89	9.01	12.01	15.08	18.25	20.55	23.90	30.53
Indoor External Static Pressure		Pa	50-500	50-500	50-500	50-500	50-500	50-500	50-500	50-500
Airflow		cfm	2000	2800	4400	5000	7000	7600	8000	9000
Outdoor Sound Performance	Sound Pressure	dBA	61	62	65	67	68	69	70	72
	Sound Power	dBA	81	83	83	85	87	89	89	92
Dimensions	Height	mm	1,150	1,350	1,390	1,390	1,690	1,650	1,650	1,950
	Width	mm	1,280	1,280	1,965	1,965	1,965	2,410	2,410	2,410
	Depth	mm	1,520	1,520	1,630	1,630	1,905	2,030	2,030	2,030
Weight	Net	kg	350	380	590	650	840	930	940	1,090
	Gross	kg	370	400	620	680	870	970	980	1,130
	Cooling	°CDB		19-52						
Refrigerant				R-410A						
Power Supply		V/Ph/Hz		380-415/3/50						

(1) Rated cooling capacity based on 27°CDB / 19°CWB indoor and 35° CDB outdoor
(2) Rated cooling capacity based on 29°CDB / 19°CWB indoor and 46° CDB outdoor

Powerful Cooling
Rapid cooling and powerful, even if outside temperature is very high.

R-410A
Zero ozone depletion potential for a reduced impact on the environment.

Energy Saving
Daikin offers efficient operation on its equipment for lower electricity consumption. This also contributes to reduce CO_2 emissions.

User Friendly
Easy installation, easy operating procedures and friendly shape buttons.

Tropical Compressor
The tropical compressor is able to handle and operate fully under extreme weather conditions.

DAIKIN MIDDLE EAST AND AFRICA FZE

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