# Air-Cooled Rooftop Packaged A-Series

UAT180/240/280/320/450/560/700/850AMY1 UATC10/12AMY1



## Cabinet & Base Construction

Daikin rooftop is equipped with a solid base foundation and compact cabinet. The weatherproofed electro galvanized mild steel casing is coated with an epoxy polyester powder costing for protection against corrosion.

Forklift slots and rigging hole is provide for better handling purpose. All Daikin rooftop designs were rigorously rain tested at the factory to ensure the water integrity.

## Insulation

10mm thickness, fire-resistant Polyethylene is used at every possible condensate panel to prevent all forms of water or moisture penetration. Polyethylene, which is also a type of Closed Cell Foam (CCF) insulation has offered the following advantages:

- Durable external surface that resists dirt tough and resilient.
- Higher degree of puncture resistance when compared to fiberglass.
- Easily cleaned surface (if necessary) to further resist microbial growth.

## Components

- Expansion device: Optimized capillary tube is used for better performance. However, thermal expansion valves spec can be specified in any project requirement.
- Compressor: Each high efficiency scroll type compressor is hermetically sealed, quiet running and supported on rubber mounts to minimize vibration.
- Indoor Fan: A dynamically balanced forward curved fan with a field changeable pulley package, in order to match the designed supply air requirements.
- Outdoor Fan: IP54 rated condenser fan is being used for UAT700/850/C10/C12AMX1.

## Safety Features

- High Pressure and loss of refrigerant protection.
- Compressor & motor current overload protection.
- Sensor fault indication.
- Minimum compressor's running time to ensure oil return.
- Phase sequencer is used to detect for any wrong phase and phase loss during installation and operation.

## Flat Top Design

Unit's flat top design allows the unit to be stacked up at warehouse or even during transportation, resulting in maximum utilization of warehouse and container space.



## Auto-Random Restart

Whenever unit stop due to power failure during operation unit automatically restarts at last setting condition once the power is resumed. However, the compressors will restart randomly if more than one unit is installed and share the same phase of power. Option is provided to cancel this feature.

## Microprocessor Unit Controls

- Standard units are equipped with microprocessor controller and every unit is come with a microprocessor operated handset, basic functions of these handset are:
  - Mode selection.
  - Temperature Setting.
  - Timer (delay timer for BRC51B and real time timer for BRC51C).
  - Error code display.

## Refrigeration System

• The UAT-A series are factory charged with HCFC-22 (R-22) refrigerant.



# Air-Cooled Rooftop Packaged A Series





UAT180/240/280/320/450/560/700/850AMY1 UATC10/12AMY1

- Flat top design
- High ambient application ,
- Microprocessor controlled >
- Partial loading (for 2 compressor system) >
- Easy installation >

Spe	cification for Rooftop A S	Series - Cooling	only					
MOD	EL			UAT180AMY1	UAT240AMY12	UAT280AMY12	UAT320AMY12	UAT450AMY1
News				59000	80000	100000	116000	150000
Nominal Cooling Capacity [1]			W	17290	23450	29300	34000	44000
EER W		W/W	3.08	2.43	2.94	2.94	2.51	
Power Supply			V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Total Power Input			W	5610	8100	10500	11560	15600
	Control	Air Discharge	Air Discharge		Ducted	Ducted	Ducted	Ducted
<u> </u>	Control	Operation		Sequential Controller	Sequential Controller	Sequential Controller	Sequential Controller	Sequential Controller
Evaporator	Air Flow CFM		CFM	1800	2826	3532	3600	5651
Evap	External Static Pressure		Pa	100	100	100	100	196
	Sound Pressure Level dBA		63	65	66	68	70	
	Unit Dimension	Height	mm	1000	1000	1000	1000	1200
Iser		Width	mm	1100	1300	1300	1300	1990
Condenser		Depth	mm	1530	1530	1530	1530	1670
Ő	Net Weight kg		295	370	400	425	665	

#### Specification for Rooftop A Series - Cooling only

MODEL				UAT560AMY1	UAT700AMY1	UAT850AMY1	UATC10AMY1	UATC12AMY1
Btu/h           Nominal Cooling Capacity [1]         W           EER         W / W           Power Supply         V/Ph/Hz           Total Power Input         W			Btu/h	200000	250000	300000	329000	404000
			W	58600	73270	87930	96420	118410
			W/W	2.58	2.56	2.39	2.42	2.53
			V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
			W	20700	27560	35960	39870	46800
	Control	Air Discharge		Ducted	Ducted	Ducted	Ducted	Ducted
5		Operation		Sequential Controller	Sequential Controller	Sequential Controller	Sequential Controller	Sequential Controller
Evaporator	Air Flow Cl		CFM	6710	8000	9600	11000	12500
Evap	External Static Pressure		Pa	196	294	294	300	300
	Sound Pressure Level		dBA	70	74	74	70	70
		Height	mm	1200	1735	1735	1974	1974
lser	Unit Dimension	Width	mm	1990	2250	2250	2252	2252
Condenser		Depth	mm	1670	2800	2800	3180	3180
ŏ	Net Weight kg		kg	765	1200	1350	1510	1600

Gross cooling capacity based on 26.7°C DB / 19.4°C WB indoor and 35°C DB outdoor. Gross capacity does not include the effect of evaporator fan motor heat.

## Wide Operating Range

The UAT-C series rooftops are specifically designed for High Ambient Application and capable of operating at an outdoor ambient of up to 54°C.



## High Energy Efficiency

In line with the market trend of moving towards high energy efficiency products, the UAT-C series is developed with the target of high EER.

Model	UAT150CXY1	UAT180CXY1	UAT240CXY1	UAT300CXY1
EER @ 35°C (Btu/W)	11.5	11.4	11.1	11.1
Efficiency @ 48°C (kW/TR)	1.51	1.55	1.62	1.57

Note: Efficiency at 48°C is in compliance with the Kuwait MEW minimum requirement of 1.7kW/TR.

## Light and compact

The light and compact design of UAT-C series allows for ease of transportation and installation.

## Separate Service Panels

The unit is designed with separate service panels for easy electrical box servicing.

## 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.



## Air Discharge and Air Return

The UAT-C series is available in Horizontal Air Discharge only, designed with Air discharge on the top, and return air on the bottom for easy duct design.

## Components:

001110011001	
Expansion Device	<ul> <li>Thermal Expansion Valves is used for better refrigerant control during high ambient application</li> </ul>
Compressor	- High efficiency, low noise, hermitically sealed scroll compressor is used to give a better performance
Condenser Motor	- Condenser motor of IP55 insulation class rating, designed with a dust proof bearing to ensure the reliability of the motor
	and smooth operation all year round.
Evaporator Motor	- The unit is designed with belt driven evaporator motor, which allows for change of pulley in order to accommodate
	different static pressure and air flow requirement
Filter drier	<ul> <li>Filter drier is installed as standard in every unit</li> </ul>

### External 3rd Party Testing

The UAT-C series have undergone stringent 3rd Party Testing by internationally recognized certification body, INTERTEK to verify on its designed performance data.

## Air-Cooled Rooftop Packaged C Series





UAT150/180/240/300 CXY1

- High Energy Efficiency (Complying to Kuwait MEW Energy Efficiency Requirement)
- Improved Performance at 46°C
- 3rd Party Testing

>

- Wide Operating range up to 54°C
- Light and Compact Design
- Horizontal Discharge Only
- IP55 Condenser Motor
- With TXV and Filter Drier
- Microprocessor Controlled Unit, with Sequential Controller or Mechanical Control

Specification for Rooftop C Series - Cooling Only

MODEL				UAT150CXY1	UAT180CXY1	UAT240CXY1	UAT300CXY1
Nominal Cooling Capacity [1]			150000	192300	255000	314300	
			43960	56360	74740	92120	
EER W/W			3.36	3.33	3.25	3.25	
Power Supply V/Ph/Hz			380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	
Total Power Input W			W	13070	16920	23000	28360
		Air Discharge		DUCTED	DUCTED	DUCTED	DUCTED
rator	Control	Operation		MECHANICAL/ SEQUENTIAL CONTROLLER	MECHANICAL/ SEQUENTIAL CONTROLLER	MECHANICAL/ SEQUENTIAL CONTROLLER	MECHANICAL/ SEQUENTIAL CONTROLLER
Evaporator	Air Flow		CFM	4600	6500	7900	8700
	External Static Pressure		Pa	125	150	200	250
	Sound Pressure Level dl		dBA	66	68	68	73
Condenser		Height	mm	1390	1390	1690	1650
Cond	Unit Dimension	Width	mm	1965	1965	1965	2410
		Depth	mm	1630	1630	1905	2030
	Net Weight k		kg	600	650	850	980

 Gross cooling capacity based on 26.7°C DB / 19.4°C WB indoor and 35°C DB outdoor. Gross capacity does not include the effect of evaporator fan motor heat.