

# Rooftop Packaged Unit

12kW-300kW



## Application areas

- Large and light Commercial buildings (Retail, Airports, Restaurants, shops, petrol stations...)
- Cinemas, Theaters
- Industrial buildings and Logistic centers

## Why this choice?

- Energy efficient solution
- Cost effective package for fast and easy installation
- Multiple heating options available
- Fresh air control and free cooling management
- Wide choice of communication interfaces



## Characteristics

### Structure

Panels and frame are made from galvanized steel protected with polyester powder painting to ensure total resistance to atmospheric agents.

Direct expansion coils with condensate drain tray.

### Hermetic compressor

High efficiency scroll compressor for the whole range, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration dampers.

Ripple type acoustic insulation for compressor section, and thermal insulation for coil and fan section, low noise.

### Centrifugal fan

Forward curve centrifugal fans for air treatment section and axial fans for condensation section. Front, side and underside air discharge of the treatment unit.

High external pressure, long air supply distance.

### Electric panel

Electric panel consists of breakers and contactors for compressors and fan motors, phase sequence relay and other necessary protection devices for the main components.

### Easy operation line controller

Cooling/Heating/Auto  
Error indication  
Timing on/off

## Optional

Economizer with fresh, return air dampers and fresh air hood

Free cooling function for low ambient temperature

Low ambient control device for operation of outdoor units at ambient temperatures from less than 20°C down to -10°C

BMS devices

T3 (Tropical climate)

Roof curb

Metal/aluminum filter

Heat recovery to 100%

Evaporating section: double skin with 50mm polyurethane foam

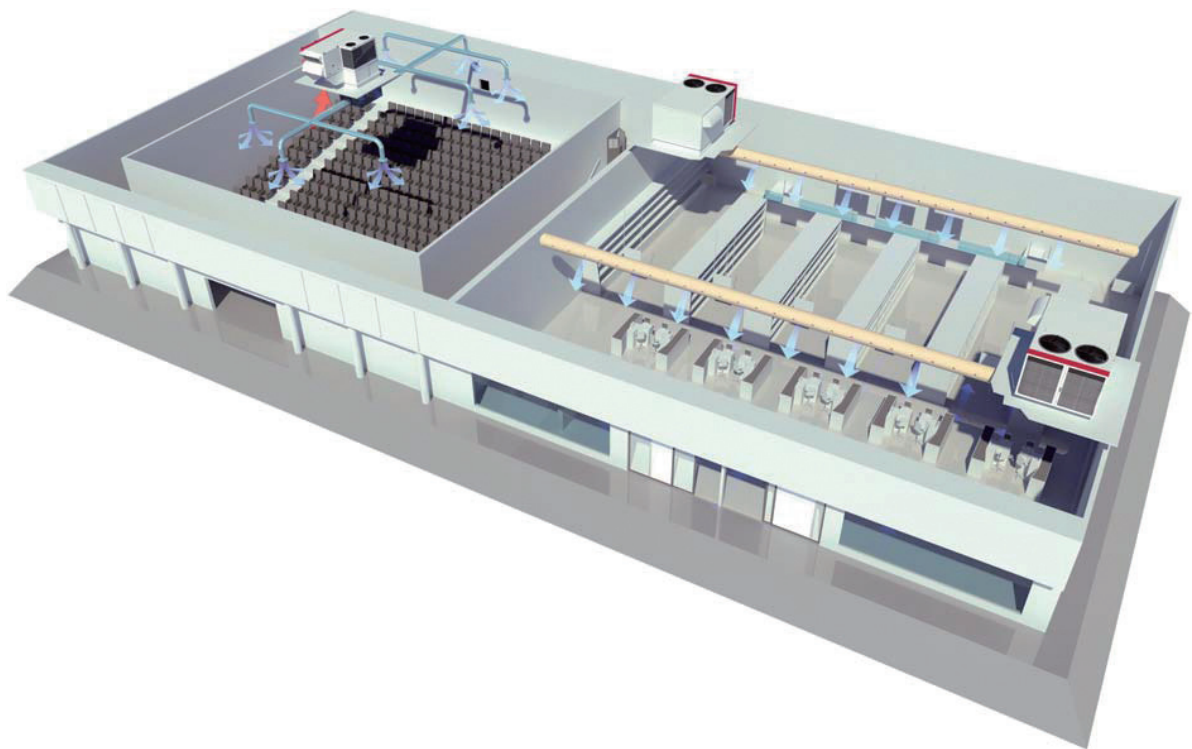
Optional water heating coil

Metal or plastic mesh on condenser coil

Optional supply/return air configurations

Upgraded plug fan

G4 filter, plate and bag filter



## Technical Data

Model		RTU12	RTU15	RTU18	RTU24	RTU30	RTU35	
Cooling capacity	kW	12	15.2	17.5	24	30.3	35.6	
Heating capacity	kW	13.2	16.6	18.4	26.5	33.3	37.7	
Power supply		380V / 3Ph / 50HZ						
Cooling power input	kW	4.1	5.3	5.5	8.8	11.3	12.3	
Heating power input	kW	3.8	4.8	5.1	8.2	10.4	11.3	
Start current	A	48	62	63	63	74	76	
Working current in cooling	A	7.4	9.7	10.2	16.1	21.2	23.3	
Working current in heating	A	6.9	9.2	9.7	15.1	20.1	22.2	
Throttle methods		Thermal expansion valve						
Circuits		1	1	1	1	2	2	
Refrigerant		R410A						
Comp.	Type	Scroll type			380V / 3Ph / 50HZ			
	Qty	1	1	1	1	2	2	
Condensor side								
Condensor	Type	Al+copper tube						
	Qty	1	1	1	1	1	1	
Axial fan	Drive	Direct drive						
	Motor power	kW	0.25	0.37	0.37	0.55	0.75	0.75
	Air flow	m <sup>3</sup> /h	4600	7800	7800	9000	12600	12600
Evaporator side								
Evaporator	Type	Al+copper tube						
	Qty	1	1	1	1	1	1	
Centrifugal fan	Motor power	kW	0.32	0.37	0.45	1.1	1.5	2.2
	Air flow	m <sup>3</sup> /h	2100	2600	3400	4100	5200	6300
	Drive		Direct drive			Belt drive		
External static pressure (Pa)		100	100	100	200	200	250	
Filter		Aluminum frame filter G3						
Noise level dB(A)		67	67	68	71	72	72	
Dimension	L	mm	1410	1410	1410	1978	1978	1978
	W	mm	1100	1100	1100	1175	1175	1175
	H	mm	1095	1095	1095	1095	1095	1095
Weight	kg	240	260	290	420	480	500	

\* Performance values refer to the following conditions:

Cooling: room air temperature 27.0°C DB RH 50%, ambient air temperature 35°C;

Heating: room air temperature 20.0°C DB, ambient air temperature 7°C DB / 6°C WB.

\*\* Noise level measured by adopting average value in the noise lab with background noise of 25 dB(A), at a distance of 1.5m high fan speed.

Model		RTU45	RTU50	RTU60	RTU72	RTU90	RTU105	
Cooling capacity	kW	44.5	50	60	70	90	105	
Heating capacity	kW	48.7	54.3	64	75.4	96.2	113.2	
Power supply		380V / 3Ph / 50HZ						
Cooling power input	kW	17	19.5	22.8	26.7	32.9	39.7	
Heating power input	kW	15.6	18	21	24.8	30.4	36.7	
Start current	A	168	186	175	199	197	266	
Working current in cooling	A	31.7	35.6	39.9	48.3	61	70.6	
Working current in heating	A	29.9	33.5	37.5	45.4	57.3	66.3	
Throttle methods		Thermal expansion valve						
Circuits		2	2	2	2	3	3	
Refrigerant		R410A						
Comp.	Type	Scroll type		380V / 3Ph / 50HZ				
	Qty	2	2	2	2	3	3	
Condenser side								
Condensor	Type	Al+copper tube						
	Qty	1	1	1	1	2	2	
Axial fan	Drive	Direct drive						
	Motor power	kW	1.1	1.5	1.5	2.2	2x1.1	2x1.5
	Air flow	m <sup>3</sup> /h	16500	21000	21000	27000	33000	42000
Evaporator side								
Evaporator	Type	Al+copper tube						
	Qty	1	1	1	1	1	1	
Centrifugal fan	Motor power	kW	3	3	4	4	5.5	5.5
	Air flow	m <sup>3</sup> /h	7600	8500	10900	12500	16000	19500
	Drive		Direct drive			Belt drive		
External static pressure(Pa)		250	250	300	300	300	300	
Filter		Aluminum frame filter G3						
Noise level dB(A)		73	73	73	75	74	75	
Dimension	L	mm	2268	2268	2298	2298	2878	2878
	W	mm	1440	1440	1650	1650	2140	2270
	H	mm	1167	1167	1400	1400	1964	1964
Weight	kg	750	770	830	860	1160	1350	

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Model		RTU120	RTU140	RTU150	RTU180	RTU210	RTU300	
Cooling capacity	kW	120	140	149	180	210	298	
Heating capacity	kW	128.3	150	159.2	192.5	226	318	
Power supply		380V / 3Ph / 50HZ						
Cooling power input	kW	45.1	55.7	55.1	69.9	83	106.7	
Heating power input	kW	41.7	51.8	51.5	64.8	77	100	
Start current	A	218	252	323	232	301	415	
Working current in cooling	A	82.4	101.4	100.2	130.9	151	192.3	
Working current in heating	A	77.4	95.7	95.1	123.5	142.3	184.3	
Throttle methods		Thermal expansion valve						
Circuits		4	4	2	6	6	4	
Refrigerant		R410A						
Compressor	Type	Scroll type		380V / 3Ph / 50HZ				
	Qty	4	4	2	6	6	4	
Condenser side								
Condensor	Type	Al+copper tube						
	Qty	2	2	2	4	4	4	
Axial fan	Drive	Direct drive						
	Motor power	kW	2x1.5	2x2.2	2x2.2	4x1.1	4x1.5	4x2.2
	Air flow	m <sup>3</sup> /h	42000	54000	54000	66000	84000	108000
Evaporator side								
Evaporator	Type	Al+copper tube						
	Qty	1	1	1	1	1	1	
Centrifugal fan	Motor power	kW	7.5	11	11	15	15	18.5
	Air flow	m <sup>3</sup> /h	21000	25000	26000	32000	38000	54000
	Drive		Belt drive					
External static pressure(Pa)		400	400	400	500	500	500	
Filter		Aluminum frame filter G3						
Noise level dB(A)		75	79	79	80	80	82	
Dimension	L	mm	3626	3626	3626	4690	4690	5660
	W	mm	2200	2200	2200	2330	2330	2330
	H	mm	2047	2047	2047	2055	2055	2055
Weight	kg	1710	1820	1850	2180	2430	2860	

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