



# RMXRBA HE



NEW



ROOF TOP AIR-AIR UNITS | KUBIC HE  
Axial fans

## A different Roof Top unit

The units of the KUBIC HE series are autonomous Roof Top units of high efficiency especially designed for installation on rooftops, roof terraces or in any other outdoor location.

### MAIN FEATURES

- Cooling capacities: from 39.5 to 218.5 kW
- Heating capacities: from 42.4 to 226.7 kW
- R-410A refrigerant
- Tandem scroll compressors, especially designed for heat pump applications; they provide very wide operational limits
- EER: up to 3.17
- COP: up to 3.41
- Condenser hermetic EC axial fans, with aluminium blades designed to produce low noise levels
- Indoor Plug fan to maximise energy efficiency
- Complete cabinet: built from galvanised steel plate with a polymerised polyester resin finish (RAL 1013); high corrosion resistance and protection from the elements
- Magneto-thermal switches for protection
- Extra-compact G2 filter
- Condensation control by variator as standard.

### APPLICATIONS

- Specially designed to be installed outdoors (rooftops, roof terraces, etc.) for large areas with air duct installation

### ADVANTAGES

- High efficiency complying with the requirements established under Regulation 2281/2016 (Ecodesign, ErP Ready)
- Extra-compact unit: high versatility for both installation and operation, which can be adapted to each and every project
- Units will be delivered completely finished and tested, with the appropriate load of R-410A refrigerant for their correct operation
- Anti-vibration operation thanks to the internal damping system in each compressor and the assembly over the dampers in the chassis

### AVAILABLE VERSIONS

- Cooling only
- Heat pump

### REGULATION

Control as standard:  
**TH TUNE**



Optional controls:  
**PGD**



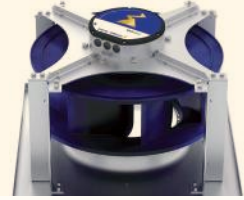
**MINI PGD**



See regulation and control on page 22.

## PLUG FAN AS STANDARD

- Greater energy efficiency
- Lower consumption
- Quieter
- High pressures available
- Low maintenance cost
- Lower installation cost
- Plug and play: the flow is adjusted to the installation
- The flow can be modified on-site just by changing a few parameters



## AVAILABLE OPTIONAL FEATURES

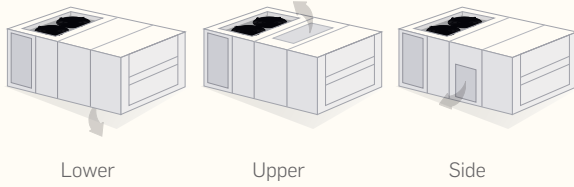
- Freecooling, thermal or enthalpy control
- Compressor soft-start
- Air quality sensor
- High-performance thermo-acoustic insulation
- Compressor acoustic insulation
- External pressure taps
- Detector of dirty filters
- Heating coils for backup and hot water
- Electrical resistance to provide auxiliary heating
- Thermal insulation Euroclass A1 (M0)
- Copper-copper coils
- Anti-corrosion treated coils
- Condensation tray in outside section
- G4, F6 to F9 combinable filters
- Economiser
- Protective grille in outdoor section exchangers
- Smoke detection
- Remote run/stop
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Centralised control for up to 90 units.
- Centralised control for up to 300 units.
- Operation without neutral
- ModBus IP/RTU, BacNet IP, WebServer, etc. connections (check chapter on thermostats)

As well as these options, please check with our Commercial Department for any other configuration or function not described as available.

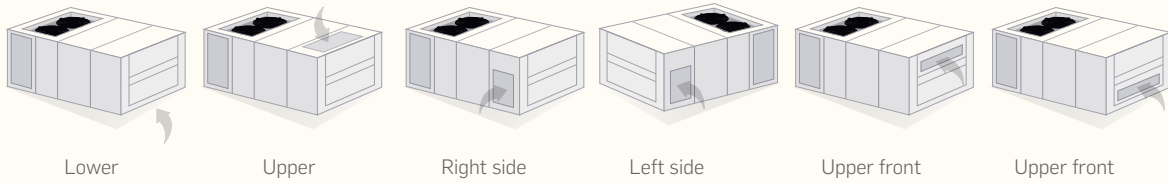
## KUBIC HE

### POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

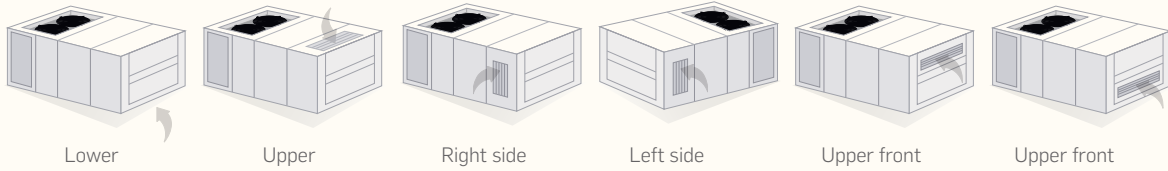
#### DISCHARGE CONFIGURATIONS



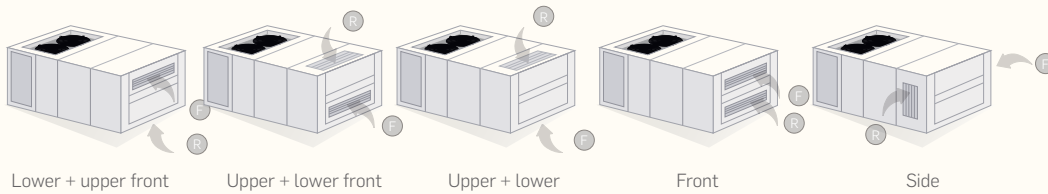
#### RETURN CONFIGURATIONS



#### NEW AIR DAMPER CONFIGURATIONS



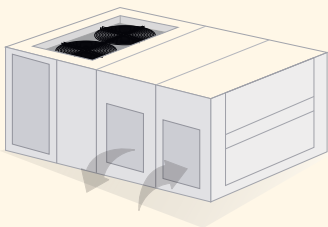
#### ECONOMISING CONFIGURATIONS



F: new air damper / R: return air damper.

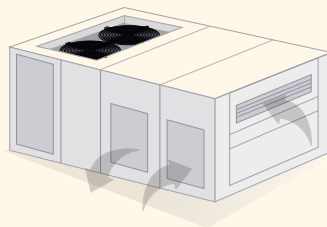
\*For specific configurations, consult the Technical Department.

### CONFIGURATION EXAMPLES



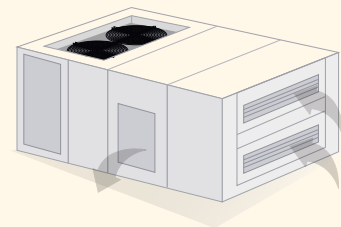
#### DISCHARGE/RETURN

Any combination of discharge and return is valid, taking into account that there can only be one discharge and one return.



#### DISCHARGE/NEW AIR

Any combination of discharge and return is valid, taking into account that there can only be one discharge, one return and one new-air damper.



#### DISCHARGE/ECONOMISER

Any combination of discharge and economiser configuration is valid, taking into account that there can only be one discharge and two dampers.

## RMXRBA HE SERIES

MODEL		40.3	45.3	57.3	71.3	77.3	114.2	125.2	135.2	171.4	200.4	219.4
COOLING MODE (1)												
Nominal cooling capacity	kW	39.5	45.2	57.2	71.0	76.9	113.6	125.3	134.8	171.0	200.0	218.5
Nominal cooling consumption	kW	16.4	18.7	23.7	29.4	31.9	39.5	44.4	49.9	53.9	69.1	77.8
EER		2.41	2.41	2.41	2.41	2.41	2.88	2.82	2.70	3.17	2.89	2.81
SEER		3.41	3.33	3.27	3.13	3.13	3.29	3.20	3.01	4.18	3.59	3.49
$\eta_{s,c}$	%	133.5	130.3	127.6	122.4	122.4	128.8	125.0	117.5	164.2	140.4	136.6
HEATING MODE (2)												
Nominal heating capacity	kW	42.4	49.3	58.2	76.0	83.7	119.1	132.7	143.0	169.8	205.7	226.7
Nominal heating consumption	kW	12.4	14.5	18.1	25.2	27.8	35.6	41.4	45.8	49.8	63.3	70.6
COP		3.41	3.41	3.21	3.01	3.01	3.35	3.21	3.12	3.41	3.25	3.21
SCOP		2.99	2.95	2.97	2.95	2.95	3.00	2.98	2.96	3.12	3.00	2.96
$\eta_{s,h}$	%	116.4	115.1	115.9	115.1	115.1	117.2	116.1	115.4	121.7	117.1	115.5
COMPRESSORS												
COMPRESSOR TYPES		Scroll										
Number of compressors		3					2			4		
Number of circuits		2										
Gas Type		R-410A										
PCA		2088										
Refrigerant Total Load	kg	1.39	14.6	15.5	17.3	17.7	31.0	32.0	33.0	44.0	64.0	66.0
INDOOR FAN												
Type		Plug fan with EC motor										
Number		2								3		
Nominal airflow	m <sup>3</sup> /h	9,000	10,200	11,500	14,000	15,500	21,000	23,000	25,000	28,500	34,000	37,000
Available Static Pressure	Pa	150	200	200	200	200	250	300	300	350	350	350
OUTDOOR FAN												
Type		Axial										
Number		2								4		
Airflow	m <sup>3</sup> /h	27,300	27,200	33,100	32,900	32,800	46,600	60,100	60,100	76,200	76,100	76,100
Available Static Pressure	Pa	0	0	0	0	0	0	0	0	0	0	0
Diameter	mm	710	710	800	800	800	800	800	800	800	800	800
Maximum power input	kW	1.25	1.25	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06
Maximum current input	A	3.00	3.00	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80
ELECTRICAL WIRING												
Supply Voltage	v / Phases/ Hz	400/3+N/50										
Maximum current input	A	59	64	73	88	93	114	122	129	147	174	193
LRA	A	138	184	191	215	254	280	326	333	318	353	377
DIMENSIONS AND WEIGHT												
Length	mm	2,910					3,900			4,330		
Width	mm	2,220					2,220			2,220		
Height	mm	1,240					1,900			2,240		
Weight (standard unit without refrigerant load)	kg	914	944	1,038	1,059	1,088	1,594	1,704	1,721	2,454	2,624	2,628
NOISE LEVEL												
Noise Level	dB(A)	88	87	85	86	86	89	90	91	89	93	94
Sound Pressure (5m)	dB(A)	66	65	64	64	64	67	68	69	68	71	73

(1) Nominal cooling capacity calculated in accordance with standard EN-14511-2018 with indoor temperature conditions of 27°C, 19°C (wet bulb) and outdoor temperature of 35°C. Nominal cooling consumption for the complete unit (compressors and fan) in nominal conditions, calculated in accordance with standard EN-14511-2018. Seasonal cooling energy efficiency factor (SEER) calculated in accordance with standard EN-14825-2016. Seasonal cooling of areas energy efficiency ( $\eta_{s,c}$ ) calculated according to Regulation (EU) 2016/2281.

(2) Nominal heating capacity calculated in accordance with standard EN-14511-2018 with indoor temperature conditions of 20°C and outdoor temperature of 7°C, 6°C (wet bulb). Nominal heating consumption for the complete unit (compressors and fan) in nominal conditions, calculated in accordance with standard EN-14511-2018. Seasonal heating energy efficiency factor (SCOP) calculated in accordance with standard EN-14825-2016. Seasonal heating of areas energy efficiency ( $\eta_{s,h}$ ) calculated according to Regulation (EU) 2016/2281.