

## RTA

**ROOFTOP cooling-only unit with heat pump**  
**Cooling outputs from 140 to 230 kW (standard version)**  
**Heating outputs from 138 to 228 kW (standard version)**

### R407C



### Characteristics

- Available in 5 sizes
- Refrigerating gas R407C
- Heat pump models (H)
- Three versions available:
  - Standard**, low speed
  - Silenced**, with motors governed by a fan speed regulator to keep noise levels down
  - High temperature**, for cooling function with high outside temperatures. Available for both cooling-only models and those with a heat pump

#### Self-bearing structure with:

- 50mm thick sandwich-type panelling made of aluminium alloy outside, galvanised steel inside, and injected polyurethane insulation (density 42kg/m<sup>3</sup>) for the air treatment section

#### Fan for air treatment section

- centrifugal, dual intake, with forward blades to reduce noise, coupled by means of belts and variable pitch pulleys

#### Fans for condensate section

- helicoidal, statically and dynamically balanced, electrically and mechanically protected with grilles

#### Double chiller circuit

- each equipped with tandem scroll compressors to ensure quiet operation and high efficiency, internal and external battery with copper pipes and high-efficiency aluminium finning

#### Air filtration

- performed by corrugated synthetic filters with G4 efficiency, or F7 rigid pocket filters (option)

#### Microprocessor adjustment

- complete with electrical panel, probes and actuators for all the components

### Versions

- **SMP** 2-damper mixing chamber with rear intake
- **SM2** 2-damper mixing chamber with side/lower intake
- **SM3** 3-damper mixing chamber

with free-cooling

- **FT7** F7 efficiency rigid pocket filters (EN 779)
- **REC** cross-flow heat recovery unit with intake fan

- **Gxxx** condensation hot air generator

### Accessories

- **DCPX**: Device for low temperatures (standard for quiet operation)
- **GP**: Protection grilles
- **T1** - Air intake on the right-hand side (only on the SM2)
- **T2** - Air intake only on the left-hand side (only on the SM2)
- **T3** - Rear air intake (only on the SM2)
- **T4** - Air bottom intake (only on the SM2)
- **AI** - Bottom intake (only on the SM3)
- **PA4** - Intake fan head up to 300 Pa at nominal flow rate
- **MA** - Upper air delivery
- **PM4** - Delivery fan head up to 400 Pa at nominal flow rate
- **BTR** - Water-operated heating coil 2-row hot water coil complete with anti-freeze probe. These can only be managed in the post-heating phase with the DP accessory. Can be coupled with the Gxxx generator.
- **V3V** - 3-way valve with servo command for managing the water-operated coil.
- **BRE** - Electric heating coil Electric heating coil with double safety thermostat (one with automatic reset and the other with manual reset). These can only be managed in the post-heating phase with the DP

accessory. The BRE cannot be coupled with the Gxxx generator.

- **PUC** - Suitable for humidification control ON/OFF (normally open) contact for humidification consent. The unit in this case has a humidity sensor situated on the ambient air recovery. A humidity valve is also supplied, to be positioned downline from the humidification section.
- **DP** - Kit for managing dehumidification and post-heating
- **SCSR** - Recirculation damper for SMP mixing chamber
- **SRP** - Recirculation damper for SMP mixing chamber and modulating servo command (combined dampers)
- **SCMP** - Recirculation damper for SMP mixing chamber and modulating servo command with spring return
- **SCS2** - Recirculation damper for SM2 mixing chamber
- **SR2** - Recirculation damper for SM2 mixing chamber and modulating servo commands
- **SCM2** - Recirculation damper for SM2 mixing chamber, modulating servo command on intake and modulating servo command with spring return on the fresh air intake.

- **SCM3** - Modulating servo commands with spring return for SM3 or REC version.
- **FCH** - Free-cooling enthalpic Only with 3-damper mixing chamber and cross-flow heat recovery unit. It manages the outside air flow and recovery referring to their enthalpic values.
- **PR2** - Remote control panel Enables rooftop command operations to be carried out at a distance.
- **SSV** - RS485 serial interface for supervision Serial card required for the interface with supervision systems.
- **SQA** - Air quality probe
- **CAF** - Rain-proof casings A Protect the external air intake points in the 2-damper mixing chambers or the heat recovery unit. Standard with SM3.
- **CF** - Smoke pipe In stainless steel
- **PF** - Pressure switch for filter dirt level
- **RUB** - Liquid and discharge taps (only for the cooling-only version)
- **VT** - Rubber vibration dampers

**NB: for the coupling possibilities, refer to the technical manual**

## Technical data

Mod.		Standard					High temperature (A)			Silenced (L)				
		480	530	600	700	800	480	530	600	480	530	600	700	800
Cooling output (RTA F)	kW	140.2	160.4	180.7	210.5	230.7	145.0	165.0	191.0	138.5	160.5	184.3	208.9	225.9
Sensible cooling capacity (RTA F)	kW	114.4	135.3	148.9	169.4	183	116.3	137.9	151.3	116.3	135.2	148.9	169.4	183
Total input power (RTA F)	kW	61.4	68.8	81.7	89.3	97.8	57.1	66.5	74.7	59.6	65.3	75.6	87.7	99.1
Cooling capacity (RTA H)	kW	138.8	158.8	178.9	208.4	228.4	145	163.4	189	137.1	158.8	182.5	206.8	223.6
Sensible cooling capacity (RTA H)	kW	113.3	133.9	147.4	167.7	181.2	115.1	136.5	149.8	115.1	133.8	147.4	167.7	181.2
Total input power (RTA H)	kW	61.4	68.8	81.7	89.3	97.8	57.1	66.5	74.7	59.6	65.3	75.6	87.7	99.1
Heating output (RTA H)	kW	146.2	166.9	199.8	221.4	251.8	150.4	171.7	205.7	144.7	167.7	192.6	218.3	236.1
Input power (RTAH)	kW	54.5	61.7	71.7	82	92.3	56.3	63.7	74.2	55.4	62.7	72.9	83.4	94
Nominal air flow rate of internal fans	m <sup>3</sup> /h	26.500	29.500	31.500	35.000	38.500	26.500	29.500	31.500	26.500	29.500	31.500	35.000	38.500
Minimum air flow rate of internal fans	m <sup>3</sup> /h	22.500	25.000	26.800	29.800	32.700	22.500	25.000	26.800	22.500	25.000	26.800	29.800	32.700
Maximum air flow rate of internal fans	m <sup>3</sup> /h	30.500	34.000	36.300	40.300	44.300	30.500	34.000	36.300	30.500	34.000	36.300	40.300	44.300
Compressors	no.	4					4			4				
	type	scroll/tandem					scroll/tandem			scroll/tandem				
Chiller circuits	no.	2					2			2				
External fans	no.	4					4			4				
	type	Axial					Axial			Axial				
Air flow rate of external fans (RTA F)	m <sup>3</sup> /h	74.600	72.400	69.200	84.400	80.600	72.400	69.200	67.400	57.800	55.400	51.800	63.200	59.800
Internal fans	no.	1					1			1				
Max. useful head with stand. fan	Pa	200					200			200				
Power supply	V/Ph/Hz	400/3N/50					400/3N/50			400/3N/50				

Performance values refer to the following conditions:

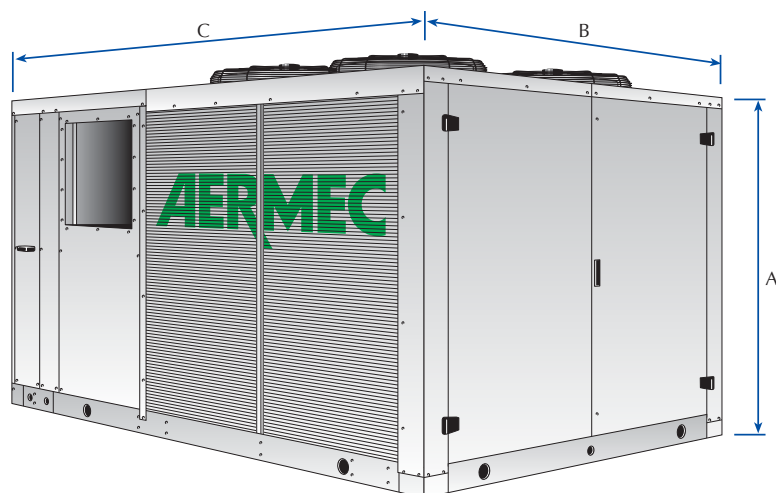
■ Cooling:

- Cooling capacity Tin 27°C HR 50% (Twb 19°C), Text 35°C HR 50%;

■ Heating:

- Heating capacity Tin 20°C HR 50%, Text 7°C HR 70%.

## Dimensions (mm)



		480	530	600	700	800
Height	A	2.450	2.450	2.450	2.450	2.450
Width	B	2.350	2.350	2.350	2.350	2.350
Depth	C	4.200	4.200	4.200	5.500	5.500
Weight (kg)	RTA	2.100	2.200	2.300	2.700	2.800
	RTA H	2.200	2.300	2.400	2.800	2.900

The technical data in this document are not binding. Aermec S.p.A. shall have the right to introduce at any time whatever modifications deemed necessary for the improvement of the product.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy  
Telephone 0442633111 - Telefax 044293730  
www.aermec.com