



# Rooftop Packaged Air Conditioner





# Rooftop Packaged Air Conditioner HWKsees



Holtop rooftop packaged air conditioner adopts industry-leading R410A scroll compressor with stable operation performance, the package unit can be applied into various fields, such as railway transportation, industrial plants, etc. Holtop rooftop packaged air conditioner is your best choice for any places where require minimum indoor noise and low installation cost.



## **Eco-friendly**

Eco-friendly type R410A refrigerant, less refrigerant injection volume.



#### Stable and Reliable

Compressor is made by heat-resisting materials, spare parts import from world class brands, strong structure and reliable performance.



## **Packaged and Compact Design**

Integrated with indoor unit and outdoor unit to lower the project investment, shorten installation period, save installation space and easy maintenance in the daily operation.

Holtop rooftop packaged air conditioner is the middle size AC equipment that combines functions of HVAC (cooling, heating and air ventilation etc.) And it contains all components of compressor, evaporator, condenser and valves etc in one unit. Holtop rooftop packaged air conditioner are usually installed on the roof deck in commercial applications.





# **Product Description**



#### **Axial fan**

Strong torque and low noise, large airflow and excellent heat exchange efficiency.





# World class compressor for reliable performance

Adopting Copeland scroll compressor for excellent performance in terms of gas suction and cooling, Copeland compressor has higher working efficiency and longer service life.

# High efficiency and energy saving motor

Efficiently bringing down the losses from electromagnetic energy, heat and mechanical energy, increasing operational efficiency with less heat generation and longer service life.







## Safe electrical control system

Approved by different safety tests and equipped with various protection measurements, which is able to operate under temperature from -10°C to 50°C.

## High efficiency heat exchanger -----

Evaporator is made of blue color hydrophilic aluminum foil, low pressure loss louvered fin and internal groove tube combines together perfectly, this design is able to significantly increase the heat exchange efficiency.

Smooth internal side, small disturbance at heat transfer boundary layer, low heat exchange efficiency.



Common copper tube



High gear and high internal groove copper tube

Expand internal surface area, raise the disturbance at heat transfer boundary layer, increase heat exchange efficiency.

ø9.52mm diameter aluminum fin with small louver area, heat exchange efficiency is smaller under same heat exchange area.



Regular louvered fin



Low pressure loss louvered fin

ø7.94mm diameter louvered fin coated with hydrophilic film, under same heat exchange area, the efficiency is 25% more than regular louvered fin.

# **Features**



## Simplify System, Lower Investment

Holtop rooftop packaged air conditioner ask for neither chilled nor cooling water system, which can save the cost of circulation pump, cooling tower, and other relevant equipment to this system, thus cutting down the total investment and maintenance cost on HVAC system to a great extent.



## Compact Design, Easy and Flexible Installation, Low Footprint

User's requirement on installation is fully considered. The unit is adopted compact design concept that integrating with indoor unit and outdoor condenser units so that there is no additional refrigerant pipe connection and welding jobs at site, and It is safe and easy for delivery and installation.

- Holtop rooftop packaged air conditioner could be placed outdoor on the ground or the roof deck, no required machine room or indoor space for housing the package unit.
- Only a few works for power cabling, control wiring, ducting are needed before system operation.



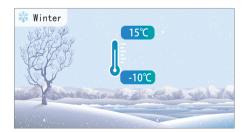
#### **Corrosion Resistantace, Excellent Weather Conditions Acclimatization**

The unit structural components are powder coated for anti-corrosion. High-strength thermal-insulated framework, double-skin PU sandwich panel, and weather-proof structure design particularly for outdoor installation, that are all ensuring its excellent adaptation to various of climate conditions in different areas.

#### **Wide Temperature Range Operation**

Cooling mode is able to work with environment temperature is high up to 43°C, and also available when it is only 15°C, to satisfy the special cooling demand in some certain applications. Heating is available even the outdoor temperature is as low as -10°C.





### **Customization For Project**

Holtop rooftop packaged air conditioner specifications and functional sections could be designed and manufactured according to specific project. For example, high external pressure is available for long-distance ducting ventilation to guarantee sufficient air to each corner room; optional sections could be equipped to satisfy the client's requirement and create the ideal indoor climate condition.

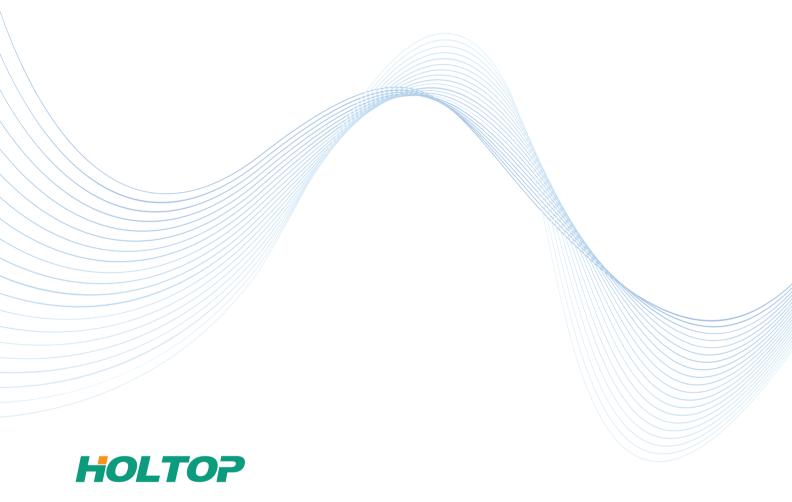
# **Product Parameter**



Model		HWK-20MA1	HWK-24MA1	HWK-30MA1	HWK-36MA1
Nominal Cooling Capacity (kw)		51	60	70.8	84
Nominal Heating Capacity (kw)		61.4	67.2	76.6	96.4
Power Supply		380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Dimension (mm)		3156*2240*1340	3156*2240*1340	3390*2240*1340	3390*2240*1340
Airflow		11000	13000	16000	17000
ESP (Pa)		350	350	350	350
Fan	Fan Type	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan	Centrifugal Fan
	Fan Input Power (kw)	4	5.5	7.5	7.5
Compressor	Compressor Type	Hermetic Scroll Compressor	Hermetic Scroll Compressor	Hermetic Scroll Compressor	Hermetic Scroll Compressor
	Compressor Qty	2	2	2	2
Input power	Cooling (kw)	17.8	20.8	24.5	29.1
	Heating (kw)	18.4	20.7	23.8	27.1
Weight (kg)		710	780	1030	1060
Refrigerant	Туре	R410A	R410A	R410A	R410A
	Refrigerant Charge Volume (kg)	7.0kg*2	7.0kg*2	8.0kg*2	8.0kg*2
Model					
Model		HWK-40MA1	HWK-48MA1	HWK-60MA1	HWK-72MA1
	g Capacity (kw)	HWK-40MA1 102	HWK-48MA1 120	HWK-60MA1 141.6	HWK-72MA1 168
Nominal Coolin	g Capacity (kw)				
Nominal Coolin		102	120	141.6	168
Nominal Coolin	ng Capacity (kw)	102 122.8	120 134.4	141.6 153.2	168 192.8
Nominal Coolin Nominal Heatin Power Supply Dimension (mm	ng Capacity (kw)	102 122.8 380V/3N~/50Hz	120 134.4 380V/3N~/50Hz	141.6 153.2 380V/3N~/50Hz	168 192.8 380V/3N~/50Hz
Nominal Coolin Nominal Heatin Power Supply Dimension (mn Airflow	ng Capacity (kw)	102 122.8 380V/3N~/50Hz 4980*4100*1340	120 134.4 380V/3N~/50Hz 4980*4100*1340	141.6 153.2 380V/3N~/50Hz 4980*4340*1340	168 192.8 380V/3N~/50Hz 4980*4340*1340
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Nominal Coolin Nominal Heatin Power Supply Dimension (mm Airflow ESP (Pa)	ng Capacity (kw)	102 122.8 380V/3N~/50Hz 4980*4100*1340 22000 350	120 134.4 380V/3N~/50Hz 4980*4100*1340 26000 350	141.6 153.2 380V/3N~/50Hz 4980*4340*1340 32000 350	168 192.8 380V/3N~/50Hz 4980*4340*1340 34000 350
Nominal Coolin Nominal Heatin Power Supply Dimension (mm Airflow ESP (Pa) Fan	ng Capacity (kw)	102 122.8 380V/3N~/50Hz 4980*4100*1340 22000 350 Centrifugal Fan	120 134.4 380V/3N~/50Hz 4980*4100*1340 26000 350 Centrifugal Fan	141.6 153.2 380V/3N~/50Hz 4980*4340*1340 32000 350 Centrifugal Fan	168 192.8 380V/3N~/50Hz 4980*4340*1340 34000 350 Centrifugal Fan
Nominal Coolin Nominal Heatin Power Supply Dimension (mm Airflow ESP (Pa)	Fan Type Fan Input Power (kw)	102 122.8 380V/3N~/50Hz 4980*4100*1340 22000 350 Centrifugal Fan 11 Hermetic Scroll	120 134.4 380V/3N~/50Hz 4980*4100*1340 26000 350 Centrifugal Fan 11 Hermetic Scroll	141.6 153.2 380V/3N~/50Hz 4980*4340*1340 32000 350 Centrifugal Fan 15 Hermetic Scroll	168 192.8 380V/3N~/50Hz 4980*4340*1340 34000 350 Centrifugal Fan 15 Hermetic Scroll
Nominal Coolin Nominal Heatin Power Supply Dimension (mm Airflow ESP (Pa) Fan Compressor	Fan Type Fan Input Power (kw)  Compressor Type	102 122.8 380V/3N~/50Hz 4980*4100*1340 22000 350 Centrifugal Fan 11 Hermetic Scroll Compressor	120 134.4 380V/3N~/50Hz 4980*4100*1340 26000 350 Centrifugal Fan 11 Hermetic Scroll Compressor	141.6  153.2  380V/3N~/50Hz  4980*4340*1340  32000  350  Centrifugal Fan  15  Hermetic Scroll Compressor	168 192.8 380V/3N~/50Hz 4980*4340*1340 34000 350 Centrifugal Fan 15 Hermetic Scroll Compressor
Nominal Coolin Nominal Heatin Power Supply Dimension (mm Airflow ESP (Pa)	Fan Type Fan Input Power (kw)  Compressor Type Compressor Qty	102 122.8 380V/3N~/50Hz 4980*4100*1340 22000 350 Centrifugal Fan 11 Hermetic Scroll Compressor 4	120 134.4 380V/3N~/50Hz 4980*4100*1340 26000 350 Centrifugal Fan 11 Hermetic Scroll Compressor 4	141.6  153.2  380V/3N~/50Hz  4980*4340*1340  32000  350  Centrifugal Fan  15  Hermetic Scroll Compressor  4	168 192.8 380V/3N~/50Hz 4980*4340*1340 34000 350 Centrifugal Fan 15 Hermetic Scroll Compressor 4
Nominal Coolin Nominal Heatin Power Supply Dimension (mm Airflow ESP (Pa) Fan Compressor	Fan Type Fan Input Power (kw)  Compressor Type  Compressor Qty  Cooling (kw)	102 122.8 380V/3N~/50Hz 4980*4100*1340 22000 350 Centrifugal Fan 11 Hermetic Scroll Compressor 4 35.6	120 134.4 380V/3N~/50Hz 4980*4100*1340 26000 350 Centrifugal Fan 11 Hermetic Scroll Compressor 4 41.6	141.6  153.2  380V/3N~/50Hz  4980*4340*1340  32000  350  Centrifugal Fan  15  Hermetic Scroll Compressor  4  49	168 192.8 380V/3N~/50Hz 4980*4340*1340 34000 350 Centrifugal Fan 15 Hermetic Scroll Compressor 4 58.2
Nominal Coolin Nominal Heatin Power Supply Dimension (mm Airflow ESP (Pa) Fan Compressor Input power	Fan Type Fan Input Power (kw)  Compressor Type  Compressor Qty  Cooling (kw)	102 122.8 380V/3N~/50Hz 4980*4100*1340 22000 350 Centrifugal Fan 11 Hermetic Scroll Compressor 4 35.6 36.8	120 134.4 380V/3N~/50Hz 4980*4100*1340 26000 350 Centrifugal Fan 11 Hermetic Scroll Compressor 4 41.6 41.4	141.6  153.2  380V/3N~/50Hz  4980*4340*1340  32000  350  Centrifugal Fan  15  Hermetic Scroll Compressor  4  49  47.6	168 192.8 380V/3N~/50Hz 4980*4340*1340 34000 350 Centrifugal Fan 15 Hermetic Scroll Compressor 4 58.2 54.2

<sup>1.</sup> Cooling capacity testing conditions: Indoor (DB 27  $^{\circ}$  C, WB 19  $^{\circ}$  C), Outdoor (DB 35  $^{\circ}$  C).

<sup>2.</sup> Heating capacity testing conditions: Indoor (DB 20°C, WB 15°C), Outdoor (DB 7°C, WB 6°C).



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