

AIR CONDITIONER

Critical Cooling Solution (7 - 20kW)



COOLSMART PRECISION AIR CONDITIONER

Acson CoolSmart is the precision air conditioner ideal for small-medium size computer rooms or other critical applications where performance and space are essential. Wide range of cooling capacity include 7.5kW, 12.5kW, 16.5kW and 20.5kW. CoolSmart is an efficient, reliable and simple solution, which can provide exceptional configuration flexibility to data center.

Application

- Small-medium size data room
- Computer room and data center
- Communication base station
- Substation equipment room
- UPS and battery room



Features



Diversified

- Wide input cooling capacity range for different application demands.
- Downflow, upflow and under floor configuration.
- Functions: constant temperature & humidity and cooling only.
- Can coupled with AC or EC fan. (AC fan as basic configuration)
- Cooling method: Air-cooled.



Efficient

- Energy saving: saves energy more than 20% compared to normal split system. (CoolSmart implemented high air flow and small enthalpy difference that increase sensible heat ratio which suited for the sensible cooling capacity of critical equipment in server room).
- High EER: large exchange surface area of evaporator and condenser.
- High performance: high efficiency of compressor and expansion valve are implemented.
- Reduced energy and noise: ODU fans are controlled in stepless speed regulation mode.



Reliable

- Suitable for operation of 24/7.
- Durability: IDU and ODU fans implement durable metal blades.
- Automatic startup function.



Adaptable

- Capable to operate within ambient air temperature range from -20°C to 45°C.
- Wide applicable voltage range: three-phase motor able to adapt 380V±15% voltage fluctuation; single-phase motor able to adapt 220V±15% voltage fluctuation as well.
- The alarm function, featuring phase detection, warning and alarm to protect compressor (wrong phase sequence).



Intelligent

- Remote monitoring & control system: multilevel password protection, automatic diagnosis, PID predictive control algorithms, RS485 port, active and standby ports as well as communication protocols are available to meet client needs.
- Maintenance reminder (indicator triggered when maintenance required)
- Programmable LCD: running data, configuration specification and data are displayed.
- Send alert messages via SMS in an event of fault. (optional)
- Configured with 5-inch user friendly touchscreen display to display temperature and humidity (optional); 4.3-inch text screen as basic configuration.

Specifications

CoolSmart APCS/AOPC Series

| Model | | | Indoor | APCS 007 | | APCS 012 | APCS 016 | APCS 020 | |
|---------------------------------------------------|-------------------------------------------------------------------------|------|---------|--------------------------------------------------------|--------------------------------------------------------------|------------------|--------------|-------------|-------------|
| | | | Outdoor | AOPC 10S | | AOPC 16S | AOPC 22S | AOPC 28S | |
| Air Discha | rge Direction | | | | U | P-FLOW, DOWN FLO | DW, UNDER-FL | OOR FLOW | |
| Nominal cooling capacity BTU/h kW | | | BTU/hr | 25,600 | | 42,700 | 56,400 | 70,000 | |
| | | | kW | 7.5 | | 12.5 | 16.5 | 20.5 | |
| Sensible Cooling Capacity | | | BTU/hr | 23,600 | | 39,300 | 51,900 | 64,500 | |
| | | | kW | 6.9 | | 11.5 | 15.2 | 18.9 | |
| Power Source | | | | V/Ph/Hz | 220 ~ 240 / 1 / 50 380 ~ 415 / 3 / 50 380 ~ 415 / 3 / 50 | | | 0 | |
| FLA (For Cooling Only) | | | А | 14.4 | 6.9 | 12.7 | 14.7 | 17.1 | |
| FLA (For Cooling Unit With Electric Heater) | | | А | 23.5 | 16.0 | 21.8 | 23.8 | 26.2 | |
| FLA (For Constant Temperature & Humidity Unit) | | | А | 23.5 | 16.0 | 21.8 | 23.8 | 26.2 | |
| Air Filter | | | | STANDARD CONFIGURATION:G3 FILTER, G4 FILTER (OPTIONAL) | | | | | |
| | Air Flow | | High | m³/h/CFM | 2000 / 1177 | | 3200 / 1883 | 4350 / 2560 | 5400 / 3178 |
| | External Static Pressure | | Pa | 0 - 200 (AS PER REQUIREMENT) | | | | | |
| | Heating Capacity (inapplicable to cooling only unit) | | | kW | 3.5 | | | | |
| la da a u | Humidifying Capacity (only for constant temperature and humidity) | | | kg/h | 3 | | | | |
| Indoor Unit | Unit Dimension | | Height | mm/in | 1750 / 68.90 1850 / 72.83 1900 / 74.80 | | | 74.80 | |
| | | | Width | mm/in | 520 / 20.47 | | 600 / 23.62 | 700 / 27.56 | |
| | | | Depth | mm/in | 420 / 16.54 | | 520 / 20.47 | 700 / 27.56 | |
| | Humidifier Pip | oe . | | | G1/2" | | | | |
| | Condensate Drain Pipe Size | | mm/in | 19/3/4" | | | | | |
| | Unit Weight | | | kg/lb | 108 / 238 | | 142 / 313 | 160 / 353 | 180 / 397 |
| | Unit Dimension Height Width Depth | | Height | mm/in | 820 / 32.28 | | 1198 / 47.17 | | 1367 / 53.8 |
| | | | Width | mm/in | 755 / 29.72 | | 755 / 29.72 | | 925 / 36.42 |
| | | | mm/in | 420 / | 16.54 | 420 / 16.54 | | 470 / 18.50 | |
| Outdoor Unit | Unit Weight | | | kg/lb | 43 . | / 95 | 65 / 143 | 85 / 187 | 105 / 231 |
| O | Refrigerant Pipe | Sizo | Liquid | mm/in | 6 / 0.24" 9 / 0.35" 1: | | 12 / 0.47" | | |
| | | Size | Gas | mm/in | 12 / 0.47" | | | 19 / 3/4" | |
| | Refrigerant Type | | | | R22 | | | | |

- 1. All specification are subjected to change by the manufacturer without prior notice.
- 2. Nominal cooling capacity are based on the condition below:

 Return air temperature 24°C, condensing temperature 45°C/RH:50%

 3. Refrigerant R410A and R407c can be available upon request.
- 4. For requirement of static pressure more than 200Pa, please contact Acson Malaysia for customized units.



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