# COOLSMART PRECISION

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





## 🗘 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.



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



- 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).



- 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	A5PCS005	A5PCS007		A5PCS012	A5PCS016	A5PCS020	
			Outdoor	A5OPC08S	PC08S A5OPC10S		A5OPC16S	A5OPC22S	A5OPC28S	
Air Discharge Direction				UP-FRONT FLOW, DOWN FLOW, DOWN-FRONT FLOW						
Nominal cooling capacity			kW	6	8.1		14.1	16.5	20.5	
			BTU/hr	20,400	27,600		48,100	56,300	69,900	
Sensible Cooling Capacity			kW	5.5	7.4		13.1	15.5	19.1	
			BTU/hr	18,700	3,700 25,200		44,700	52,800	65,100	
Power Source V/Ph/				V/Ph/Hz	220 ~ 24	~ 240/1/50 380~415/3/50				
FLA (For Cooling Only)				А	10.2	14.4	6.9	12.7	14.7	18.3
FLA (For Cooling Unit With Electric Heater)				А	19.2	23.5	16.0	21.8	23.8	27.4
FLA (For Constant Temperature & Humidity Unit)			А	19.2	23.5	16.0	21.8	23.8	27.4	
Air Filter				STANDARD CONFIGURATION:G3 FILTER, G4 FILTER (OPTIONAL)						
Indoor Unit	Air Flow		High	m³/h/CFM	1500 / 882	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					
	Humidifying Capacity (only for constant temperature and humidity)			kg/h	3					
			Height	mm/in	1800 / 70.86		1900 / 74.80		1900 / 74.80	
	Unit Dimension		Width	mm/in	510 / 20.07		600/23.62		700 / 27.56	
			Depth	mm/in		388 / 15.27		508/20.00		700
	Humidifier Pipe				G1/2"					
	Condensate Drain Pipe Size		mm/in	19 / 3 / 4"						
	Unit Weight			kg/lb	98 / 216	108,	/ 238	140 / 308	160 / 353	180 / 397
Outdoor Unit	Unit Dimension Height Width Depth		Height	mm/in	610 / 24.01	820/	32.28	1198 / 47.16	1198 / 47.16	1365 / 53.74
			Width	mm/in	700/27.56 870			870/34.25		
			mm/in	352/13.85					382 / 15.04	
	Unit Weight			kg/lb	33 / 72.75	43,	/ 95	65/143	85/187	105 / 231
	Refrigerant Pipe	Size	Liquid	mm/in	6/0.24" 6/0.24" 9/0.35"			12 / 0.47"		
			Gas	mm/in	9 / 0.35" 12 / 0.47"			19 / 3/4"		
	Refrigerant Type				R410A					

Notes:

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 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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