



## PCAir System

### INTRODUCTION

The Cavotec PCAir system provides pre conditioned air to aircraft. The system is designed for outstanding performance even in extreme hot and humid climates. Its cooling performance, and its capacity to continuously deliver pre-conditioned air at -20°C for periods of up to two hours, makes it ideal for cooling large, wide-body aircraft in hot and humid environments.

The PCAir is generated by the Air Cycle unit which is powered by compressed air. This offers an environmentally friendly solution enabling shut down of APU and reducing carbon foot print. With a centralised compressor room designed for "capacity on demand" the energy consumption is always reflecting the total capacity being used at the gates. The total cooling capacity can also be used where it is needed most.

### ADVANTAGES

- High cooling capacity in all ambient conditions, allowing shut down of APU
- Using air as working fluid, which is non-toxic and entirely safe in contrast to refrigerants
- 60% reduction in CO<sub>2</sub> emissions
- Significant improved cabin comfort with dry low humid PCAir
- Very robust design for long lifetime and low total cost
- High quality breathing air – filtered and odorless
- Quiet operation <80dB
- Designed for continues operation in high ambient humidity conditions up to 2 hours

### MAIN COMPONENTS

- Air Cycle unit
- Adsorption dryer
- Particle- and active carbon filters
- PLC controller
- PCA connector with inlet pressure sensors

### OPTIONS

- Mobile caddy version
- Additional heating function
- MARS-gate configuration
- PCA pop-up pits



Mobile caddy unit



Mobile caddy unit



PCA pop-up pit



## TECHNICAL CHARACTERISTICS

Mass flow:	1.0 – 2.1kg/s	
PCA temperature range:	-25°C for cooling, up to +50°C for heating	
Water content:	<1,7g/kg	
Total cooling power:	300kW (defined at -20°C/+40°C and RH65%, including the reduction of latent heat)	
Sensible cooling power:	140kW (defined at 20°C/+40°C and RH65%)	
Noise level:	<80db at 4.6m distance in all directions	
Required compressed air flow:	6 – 10 barG; 63 Nm <sup>3</sup> /min; +40°C; PDP: -30°C, oil free air	
Required electrical power:	400V 50Hz, max. 35Amp	
Weight:	Fixed unit: 4,000kg	Caddy: 4,200kg
Dimensions L/W/H:	Fixed unit: 4220/2120/1780mm	Caddy: 4710/2120/1780mm

## TECHNICAL DIMENSIONS

### PCAir Unit

