

# ISTinox PCA-units DXi

## Type DXi 500

### Device description

#### Casing in high quality

proven, double-walled monobloc housing considering specific requirements of high pressures. The casing insulation of 45 mm results in good thermal and sound insulation values. Easy to operate inspection doors with quick-release fasteners on all sides facilitate access for maintenance work. The profiles are thermally separated.

#### Outside air weather protection grill

aluminum version with drip nose and fly protection screen

#### Air filters

fixed by pressing device for easy and fast replacement from lateral. Filter cells in environmentally friendly wooden frame design.

#### High performance radial fan

consisting of radial impeller with backward curved impeller blades inclusive mounted electric motor for operation with frequency converter.

#### Refrigeration device

refrigeration system built into the unit, consisting of two semihermetic compact screw compressors with integrated frequency converter for continuous control of the refrigeration capacity; air heat exchanger with copper pipes and aluminum fins, mounted condenser with controlled EC-Axial fans.

#### Assembly of switchgear and controlgear

is equipped with the latest DDC control technology and is installed in a monobloc housing. The control contains all functions which are necessary for the according operation and regulation. The control cabinet and machine room temperature are constantly monitored; if required with control cabinet cooling.

### Technical data sheet for DXi 500; designed for climatic conditions of max 46°C/ 29.64 °C Tw

Aircraft Code		C/D/E/F (except A380)
Cooling capacity	[kW]	500
Type of refrigerant		134a
Weight of refrigerant	[kg]	ca. 220

### Air handling component

Max outside air temperature / temperature Tw	[°C / °C Tw]	46 / 30
Supply air temperature (at PCA unit outlet)	[°C ]	- 6
Static pressure at PCA unit outlet (@max air flow rate)	[Pa]	13'000
Unit air flow rate minimum / maximum	[kg/h]	5'300 / 15'000

### Electrical power requirements

Total power (nominal)	[kVA]	473
Operating current	[A]	683
Voltage / frequency	[V / Hz]	3x400/230 / 50

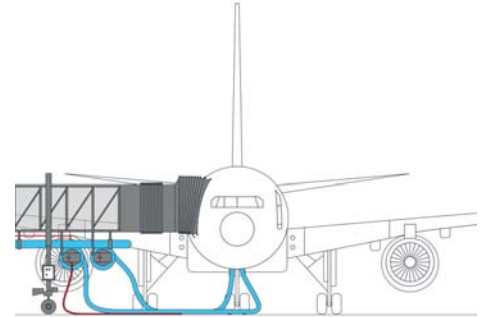
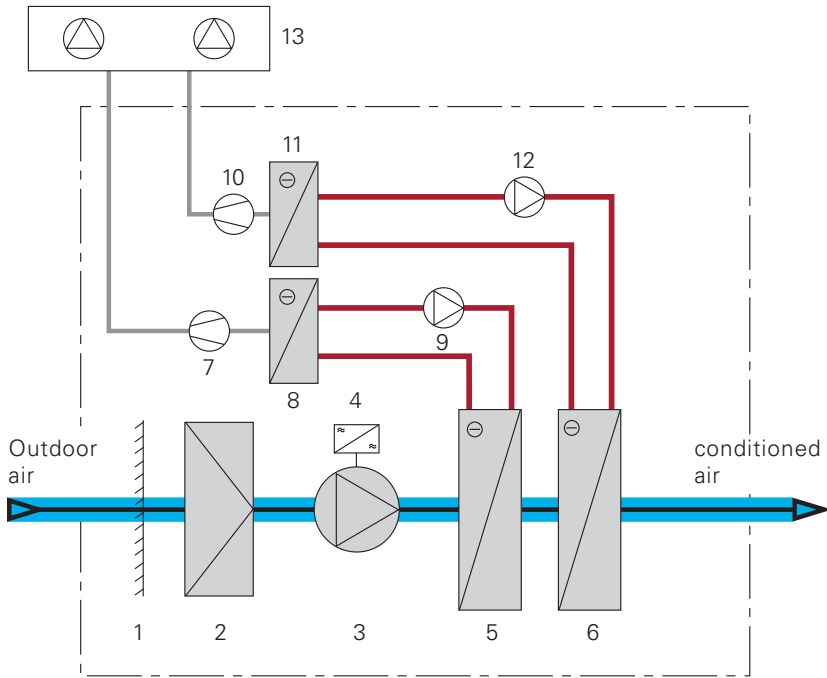
### Dimensions / weights

Length	[mm]	ca. 6'600
Width	[mm]	ca. 2'250
Height	[mm]	ca. 2'990
Weight	[kg]	ca. 10'400

Further units available for aircraft types B, C, D.

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### system diagram

- |                                     |                              |
|-------------------------------------|------------------------------|
| 1) weather protection grill         | 8) plate evaporator 1        |
| 2) fresh air filter                 | 9) circulation pump 1        |
| 3) high-performance centrifugal fan | 10) refrigeration compressor |
| 4) frequency converters             | 11) plate evaporator 2       |
| 5) air heat exchanger 1             | 12) circulation pump 2       |
| 6) air heat exchanger 2             | 13) axial condenser          |
| 7) refrigeration compressor 1       |                              |

