

ISTinox PCA-units DXi

Type DXi 400

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.

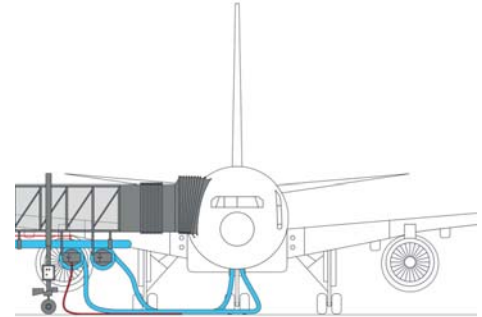
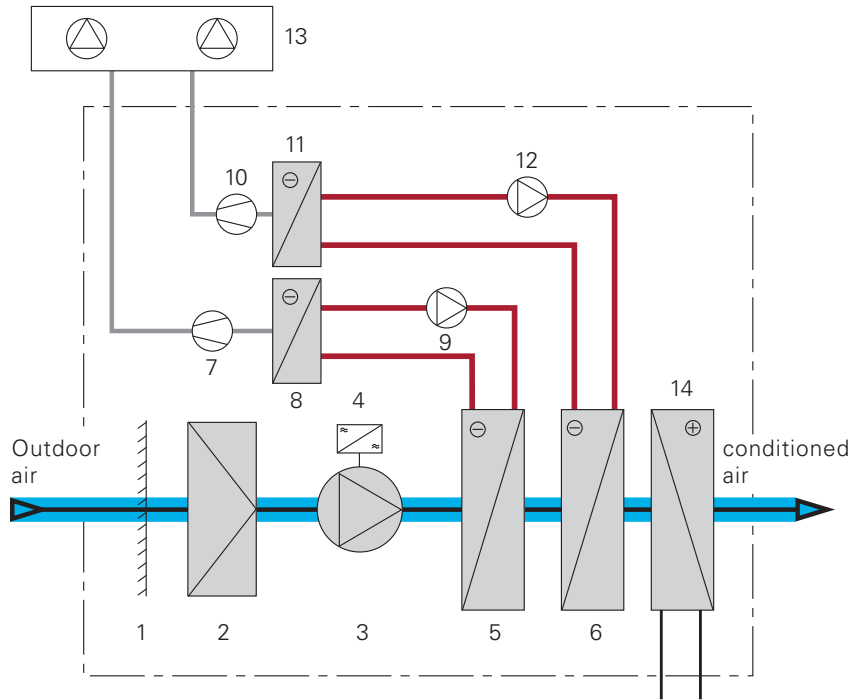
Technical data sheet for DXi 400; designed for climatic conditions of max 36°C/ 24.87 °C Tw

Aircraft Code		C/D/E/F (except A380)
Cooling capacity	[kW]	400
Heating capacity	[kW]	165
Type of refrigerant		134a
Weight of refrigerant	[kg]	ca. 195
cooling medium sole	Antifrogen N	30 %
heating medium sole	Antifrogen N	30 %
Air handling component		
Max outside air temperature / temperature wetbulb	[°C / °C Tw]	36 / 40
Min outside air temperature / temperature wetbulb	[°C / °C Tw]	-15 / 90
Supply air temperature (at PCA unit outlet)	[°C]	- 3
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]	309
Operating current	[A]	446
Voltage / frequency	[V / Hz]	3x400/230 / 50
Dimensions / weights		
Length	[mm]	ca. 7'000
Width	[mm]	ca. 2'250
Height	[mm]	ca. 2'985
Weight	[kg]	ca. 10'100

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 | 14) heat exchanger «heating» |

