

DUCT AIR

Split air/air inverter heat pumps with indoor wall unit for air conditioning summer and winter of industrial users

Technical and construction characteristics

The DUCT AIR air/air industrial heat pump units designed for large environments are the best solution for heating and air conditioning large spaces such as warehouses, production areas, workshops, shops, etc. The DUCT AIR air product /air allows you to avoid the creation of the hydraulic circuit and therefore the installation of the refrigeration lines between the external and internal units is simple and very economical, drastically reducing installation times. The external unit is combined via R410A gas line with an internal unit which can also be ducted, capable of completely dissipating the heating and cooling power produced into the environment. These air/air split units, built to avoid the classic technical water supply system, have high performance efficiencies, minimizing cycle inversions caused by the frost produced during winter operating hours. A2B Accorroni can also supply the internal air intake plenum complete with grille and filter as an accessory to the split DUCT AIR product, in order to minimize the stratification of hot air inside the rooms without having to resort to a traditional stratifier. These intake plenums make it possible to increase the thermal efficiency performances of the heat pumps in the environment by reducing the stratification of the hot air and therefore homogenising the temperature within the work environments as much as possible.

DUCT AIR HAS THE FOLLOWING FEATURES:


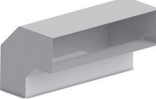




- Ecological refrigerant gas R410A managed with control lamination via electronic expansion valve;
- Permanent magnet DC inverter compressors with very high efficiency;
- Horizontal expulsion axial fans with motor electric inverter directly coupled;
- New DC Inverter fan blade design aimed at reduce the noise level and at the same time increase it air flow;
- Integrated safety devices such as high pressure switch, the fan motor safety thermostat and voltage control;
- Microprocessor for control and complete management self-diagnosis;
- Defrost method with NTC temperature probes;
- Wide operating range, from -5 °C to +48 °C in summer period and from -20 °C to +24 °C in the winter period.



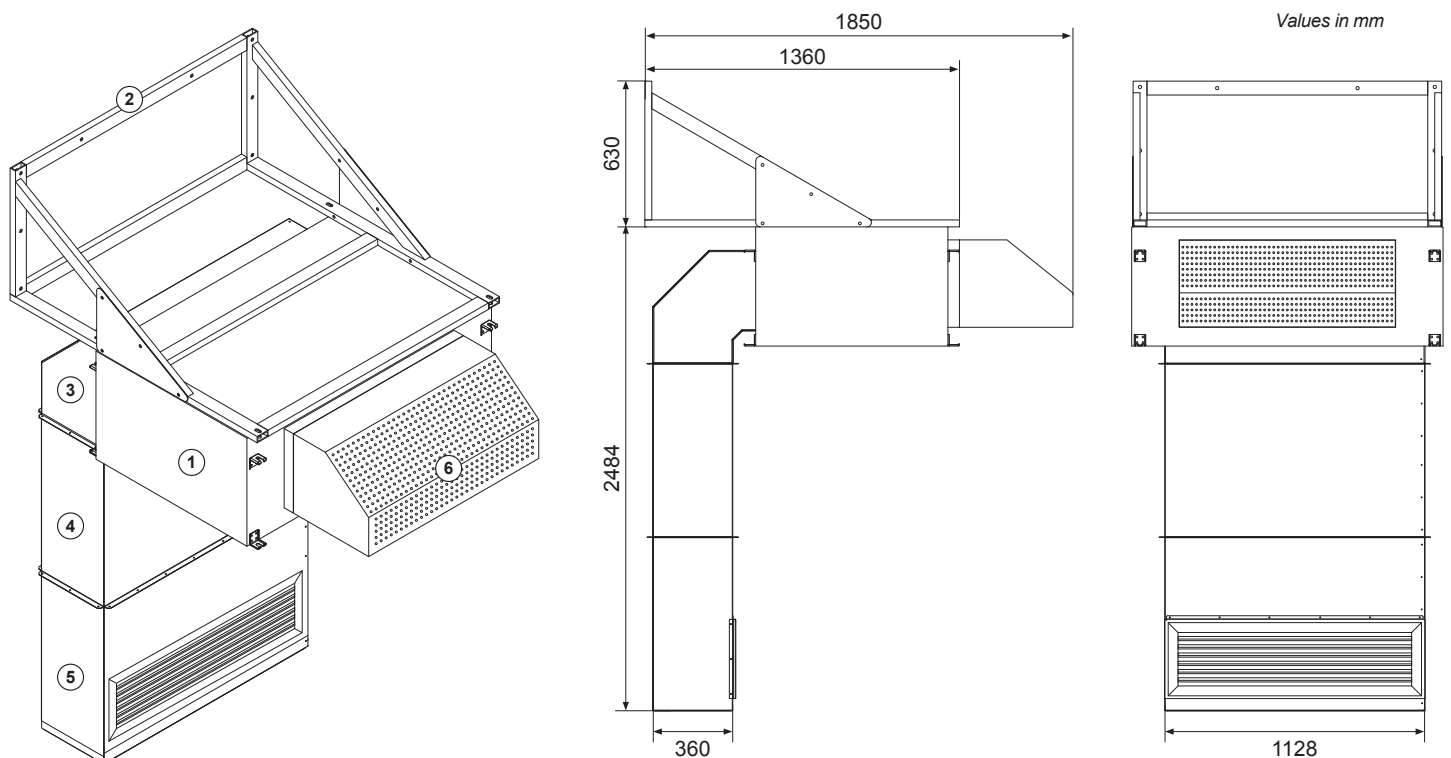
Model	Thermal power kW	Cooling power kW	Code	€
DUCT AIR 28 (Mono)	28,0	28,0	6500006	16.660,00
DUCT AIR 56 (Dual)	56,0	56,0	6500007	27.200,00

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Pompe di calore splittate inverter aria/aria con unità interna pensile per la climatizzazione estiva ed invernale di utenze industriali

Accessories DUCT AIR		Code	€
	Internal Unit support shelf DUCT AIR	65000003	520,00
	90° connection plenum for air intake	65000004	480,00
	Section of flanged and straight channel, open on both sides, 1 meter long	65000005	420,00
	Terminal section of the air intake duct, open on one side only, complete with intake grille and filter, 1 meter long	65000016	980,00
	Micro-perforated delivery grille, equipped with anti-condensation insulation for uniform distribution of the air conditioning	65000017	680,00
	Tapered delivery plenum with manually adjustable adjustable fin grille	mod. single warping 65000008 mod. double warp 65000009	500,00 540,00

Example of application of Indoor Unit accessories DUCT AIR



1 DUCT AIR split system internal unit
2 Wall anchoring shelf

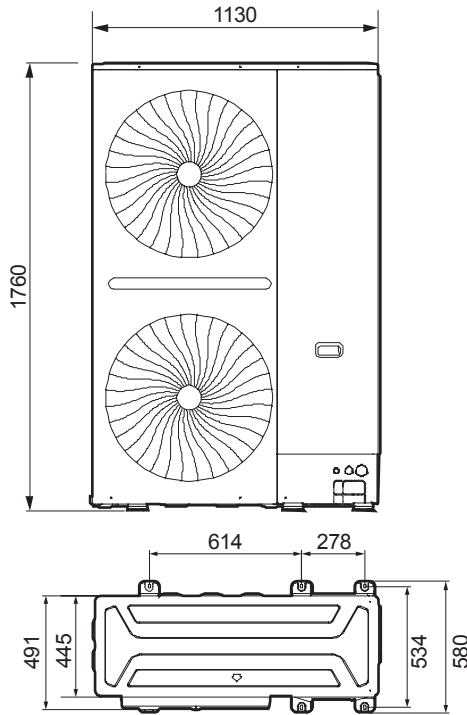
3 90° connection plenums
4 Straight intake plenum L. 1 meter

5 Intake plenum terminal section with built-in grille and filter
6 Insulated micro-perforated delivery grille

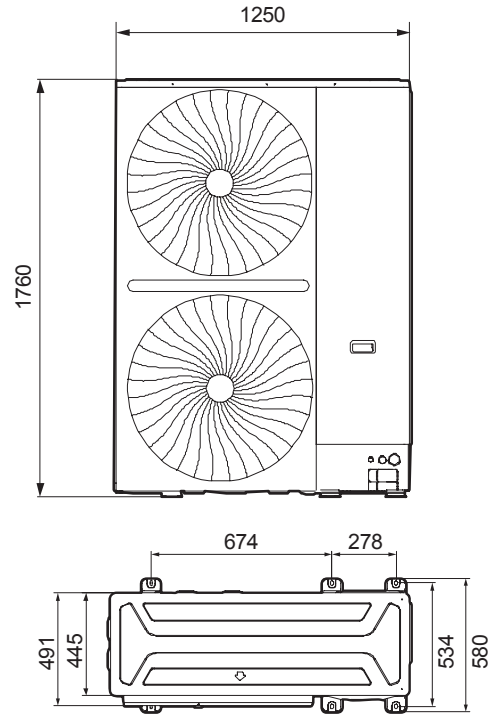
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Dimensions External Unit DUCT AIR 28

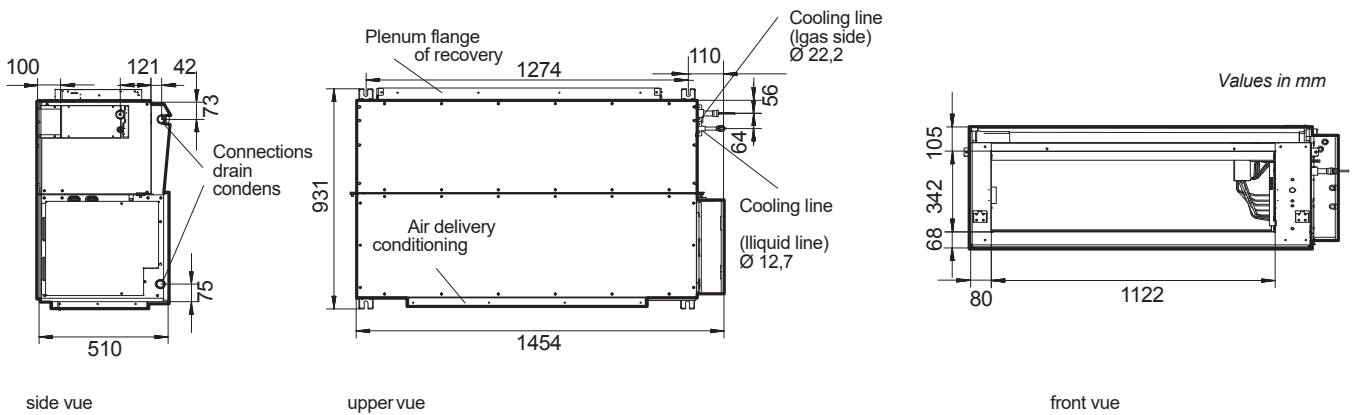


External Unit Dimensions DUCT AIR 56



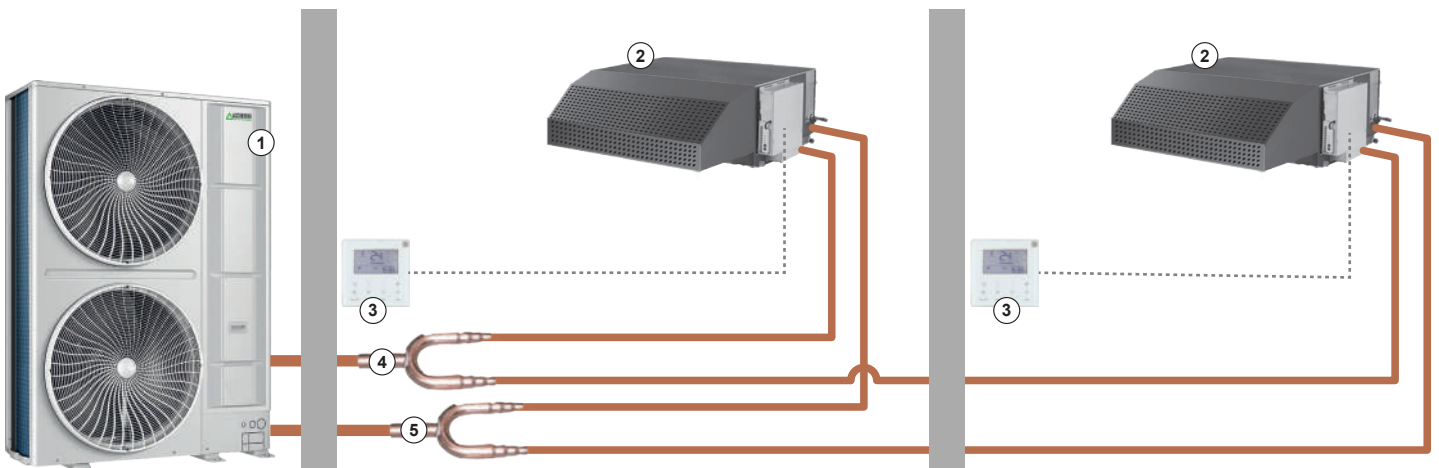
Values in mm

Indoor Unit(s) Dimensions DUCT AIR 28 - 56



Values in mm

Installation example DUCT AIR 56 (DUAL)



- 1 DUCT AIR 56 Outdoor Unit
- 2 DUCT AIR 28 split internal unit
- 3 Remote control / room thermostat with integrated WI-FI (standard)

- 4 "Y" weld joint, inlet Ø 28.6 mm and outlet Ø 22.2 mm x 2 (standard)
- 5 "Y" weld joint, inlet Ø 15.9 mm and outlet Ø 12.7 mm x 2 (standard)

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summer and winter of industrial users DUCT AIR 28 - 56

Model	U.M.	DUCT AIR 28	DUCT AIR 56	
COOLING (1)	Cooling power	kW	28,0	56,0
	Absorbed power	kW	7,1	16,7
	EER	W/W	3,94	3,36
HEATING (2)	Thermal power	kW	28,0	56,0
	Absorbed power	kW	5,8	14,2
	COP	W/W	4,84	3,95
REFRIGERANT	Type / GWP		R410A / 2088	
	Preloaded quantity	Kg	6,1	8,5
	Value CO ₂	tCO ₂	12,73	17,75
FAN	Quantity / Type		1 / motor DC	
	Static pressure	Pa	35 ÷ 80	
	Air flow	m ³ /h	12500	18500
COMPRESSOR	Type		Rotative DC inverter	
	Quantity		1	
Pipe diameter	Liquide side	mm	Ø 12,7	Ø 15,9
	Gas side	mm	Ø 25,4	Ø 28,6
Max height diff. betw. units	U.E. superior	m	50	
	U.E. inferior	m	40	
Max pipe length	m	560		
Sound pressure level (3)	dB(A)	57	61	
Sound power level (3)	dB(A)	79	80	
Operating limits Cooling	°C	-15 / +55		
Operation limits Heating	°C	-30 / +30		
Power supply		400V/3+N/50Hz		
Net dimensions (LxHxP)	mm	1130x580x1760	1250x580x1760	
Net / gross weight	Kg	177 / 191	228 / 243	

1)Internal air temperature 27 °C db, 19 °C db; External air temperature 35 °C db, 24 °C db; Equivalent hose length 5 metres

2)Internal air temperature 20 °C db, 15 °C db; External air temperature 7°C db, 6°C db; Equivalent hose length 5 metres

3)Value measured at a point one meter in front of the unit at a height of 1.3 meters from the ground

Internal Unit technical data table DUCT AIR

DESCRIPTION	U.M.	U.I. 28
Cooling power (1)	kW	28,0
Thermal power (2)	kW	31,5
Absorbed power	W	1200
Air flow (7 levels) (3)	m ³ /h	4330 / 4230 / 4130 / 4030 / 3930 / 3830 / 3730
Static pressure	Pa	170
Sound pressure level (7 levels) (4)	dB(A)	51 / 50 / 50 / 49 / 49 / 48 / 47
Sound pressure level (7 levels) (4)	dB(A)	69 / 68 / 68 / 67 / 67 / 66 / 65
Liquid side refrigeration pipe	mm	Ø 12,7
Gas side refrigeration pipe	mm	Ø 22,2
Power supply		230V/1/50Hz
Net dimensions	mm	1454 x 931 x 515
Packaging dimensions	mm	1509 x 990 x 550
Net / gross weight	Kg	130 / 142

1)Internal air temperature 27 °C db, 19 °C db; External air temperature 35 °C db, 24 °C db; Equivalent hose length 7.5 metres

2)Internal air temperature 20 °C db, 15 °C db; External air temperature 7°C db, 6°C db; Equivalent hose length 7.5 metres

3)Seven speeds available, selectable manually or automatically

4)Value measured at a point one meter in front of the unit at a height of 1.3 meters from the ground