



AIR SOURCE

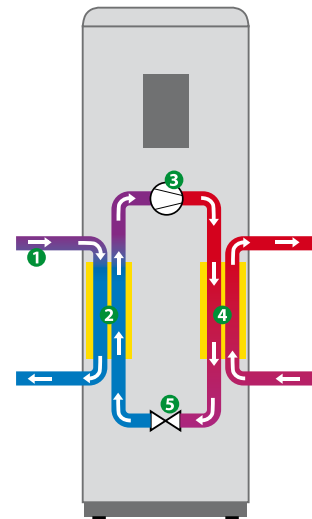
Description

The commercial range S1 of air source heat pumps offers an optimal solution for any type of application. The new air-source series is specifically designed to utilize the ambient heat to produce hot water or heating up to 60 °C, while offering savings up to 75%.

The design is modular and can be coupled together to comply with any capacity demand. The centralized control is programmed with the capacity and quantity of the entire system, which enables the plant to perform optimal at any load and also ensure even running hours on all modules.

Diagram

1. The ambient air provides the source of energy from nature
2. In a fin-coil (evaporator) the ambient heat meets the liquid refrigerant circulating in a closed loop. The refrigerant absorbs energy, heats up and vaporizes.
3. A compressor increases the pressure of the refrigerant, and by doing so the temperature increases to a much higher level.
4. In the second heat exchanger (condenser) the refrigerant releases its heat in to the heating circuit. As this occurs the refrigerant is cooled down and becomes liquid again.
5. The refrigerant continues to circulate. In an expansion valve its pressure is reduced and so is the temperature and boiling point. This reduces the temperature and the refrigerant returns to liquid form. The process recommences when the refrigerant again meets the source (ambient heat).



Technical Data

Model		WI-52W/D-S1	WI-92W/D-S1	WI-105W/D-S1	WI-150W/D-S1	WI-180W/D-S1	WI-270W/D-S1
Type		Air-To-Water	Air-To-Water	Air-To-Water	Air-To-Water	Air-To-Water	Air-To-Water
Ave. ambient temp.	°C	28	28	28	28	28	28
Water Initial/Final	°C	15/55	15/55	15/55	15/55	15/55	15/55
Heating Capacity	kW	23	38	42	60	75	108
ELECTRICAL							
Power supply	V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Input power	kW	5.8	9.5	10.5	15	18.8	27
Rated current	A	9	14	15	21	27	38
Max. operating current	A	13.5	21	22.5	31.5	40.5	57
Starting current	A	54	84	90	126	162	228
WATER							
Connections	inch	1" male	1 1/4" male	1 1/4" male	2" male	2" male	2 1/2" male
Design flow rate	m3/hr	5	8	10	12	16	24
Design pressure drop	Pa	90	75	110	65	75	100
Max. temperature	°C	60	60	60	60	60	60
Condensate water connection	mm	OD 33.4	OD 42.2	OD 42.2	OD 60.3	OD 60.3	OD 73
AIR							
Flow rate	m3/hr	5000	7400	11000	5000*3	7400*2	7400*3
Pressure	Pa	40	50	50	50*3	50*2	50*3
Air throw		top	top	top	top	top	top
GENERAL							
Refrigerant type		R417A	R417A	R417A	R417A	R417A	R417A
Level against electric shock		I	I	I	I	I	I
Water-proof grade		IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Noise level @ 1 m	db(A)	64	65	65	68	68	70
Weight	kg	165	275	300	500	625	900
Dimensions (L*W*H)	mm	800*800*1120	1200*920*1220	1200*970*1420	2080*1100*1670	2150*1135*2080	2400*1300*2100

Working condition: 28degC ambient temp
Heating condition: 15degC to 55degC

Installations

