

Water Source Heat Pump

Split System

Nominal cooling capacity range: 2 to 16 kW

Nominal heating capacity range: 2 to 17 kW



HFC 410A
ecological refrigerant

- High comfort levels
- Maximum diversity and flexibility
- Quietest operation
- High efficiency, EER>4
- Reliability



Your climate. We're there

Water Source Heat Pump



WSHP System

This decentralized, year-round heating and cooling system consists of a two-pipe closed loop water circuit, through which non-refrigerated water circulates continuously throughout the building. Filled with water, this circuit provides both a “sink” and “source” of energy. On demand for heating a space, the conditioner will absorb heat from the loop circuit, whereas on demand for cooling a space, the conditioner will reject heat to the loop circuit. In such a way these systems balance the heating and cooling requirements, specific and seasonal, of the entire building recovering and better utilising otherwise-wasted energy.

McQuay WSHP Split System

The New WSHP SPLIT by McQuay combines the benefits of such technology with the innovation and customisability of Split systems.

The motor-condensing section, extremely silent and compact, can find its location within corridors false ceilings, service rooms, closets while the room to be conditioned can be equipped with the unit better fulfilling the Customer needs:

- ducted ceiling concealed
- cassette
- wall mount
- ceiling/floor convertible

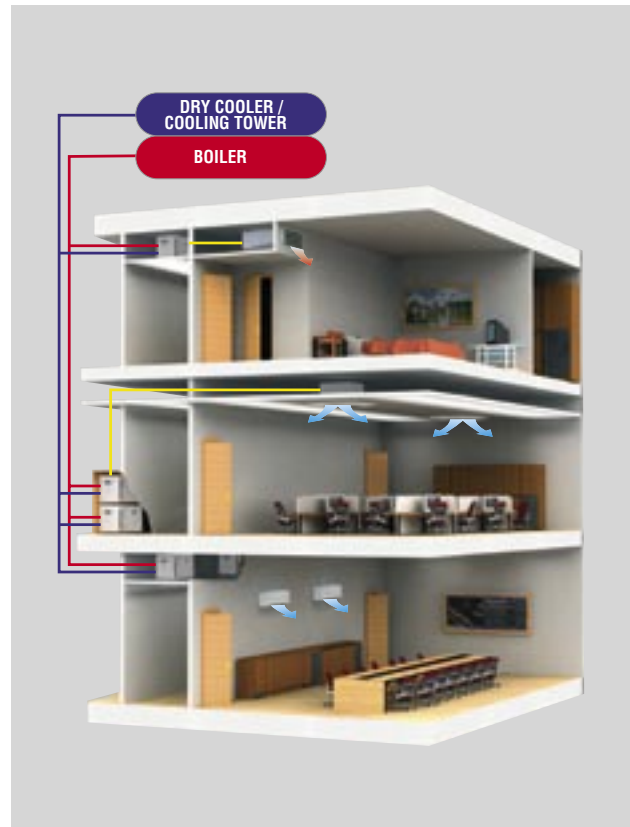
All solutions offering the most advanced features in terms of air quality, treatment and distribution, temperature and fan speed regulation and programming, controls.

Maximum flexibility

Ideal solution for conditioning hotels, offices, residential sites and commercial centres, WSHP SPLIT systems limit engineering and construction constrains. For every room it is possible to adopt a different configuration according to the building structure, space, sound requirements, end user preferences.

High efficiency

High performance compressors utilising refrigerant R410A, coaxial heat exchanger maximising the heat transfer with minimum pressure drop and an optimised refrigerant circuit, grant an extremely efficient operation both specific (EER > 4) and seasonal.



Quiet operation

Comfort and well being is maximised by placing the compressor outside of the conditioned room minimising sound emissions.

Group control

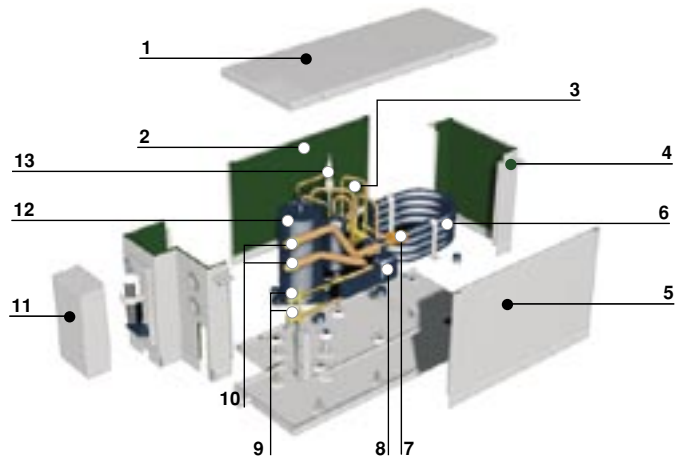
Up to 256 WSHP units can be monitored and controlled centrally using Smart Manager [central controller] or NIM PC [A/C management system].

Water Source Heat Pump



WSHP System

1. Durable painted galvanised steel
2. Sound-proof insulation
3. 4-way valve
4. Hanger bracket
5. Removable access panel for easy servicing & maintenance
6. Coaxial (Tube-in-tube) heat exchanger
7. Insulated capillary tube
8. Water temperature sensor
9. Flare valves for Gas pipe connection
10. Brass adaptor for Water pipe connection
11. Control box
12. High performance compressor with double anti-vibration mounts
13. High pressure switch



DIMENSIONS & WEIGHT	M5WSS007AR	M5WSS010AR	M5WSS015AR	M5WSS016AR	M5WSS020AR	M5WSS025AR	M5WSS030AR	M5WSS040AR	M5WSS050AR	M5WSS060AR
Height (mm)	300	330	330	360	360	360	385	440	504	504
Width (mm)	764	764	764	764	764	764	844	1020	1020	1020
Length (mm)	280	280	280	280	280	280	418	549	648	648
Weight (kg)	33	35	35.5	40	49	50	64	96	120	123

Technical Data



Model INDOOR	M5WMWS010GR	M5WMWS010GR	M5WMWS015GR	M5WMWS020GR	M5WMWS020GR	M5WMWS025GR
Model with COMPRESSOR	M5WSS007AR	M5WSS010AR	M5WSS015AR	M5WSS016AR	M5WSS020AR	M5WSS025AR
Nom. Cooling Capacity kW	2.37	2.93	3.44	4.51	5.85	7.45
Nom. Heating Capacity kW	2.58	3.08	3.75	4.33	6.30	7.45
EER - Cooling	4.47	4.37	3.62	4.38	4.12	4.93
EER - Heating	4.78	4.46	3.99	4.37	4.01	4.49
Power Supply (V/ph/Hz)	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
Airflow - max. speed (l/s)	142	142	163	240	240	306
Heat Exchanger type			Tube IN Tube (Coaxial Coil)			
Water Flow (l/s)	0.13	0.14	0.21	0.26	0.35	0.39
Sound Pressure Level-Indoor (dBA)	39/36/30	39/36/30	40/36/30	44/40/35	44/40/35	49/43/40
Sound Power Level-Compress. (dBA)	43	44	46	47	50	50
DIMENSIONS & WEIGHT						
INDOOR						
Height (mm)	260	260	260	304	304	304
Width (mm)	899	899	899	1062	1062	1062
Length (mm)	198	198	198	286	286	286
Weight (kg)	12	12	12	16	16	16

- Sleep Mode, automatically adjusts the temperature to optimise unit operation
This mode also acts as energy saving operation
- Auto Swing, with automatic horizontal movement of the louvers
- Ventilation with three selectable fan speeds and automatic setting of airflow
- Cold draft prevention
- 2 compressor protection settings
- Return air differential setting based on application

SUPERIOR INDOOR AIR QUALITY

Three-stage active filter (standard) which removes dust and particles with diameters down to 0.01 micron. Its ionised section prevents potential bacteria proliferation and minimises unpleasant smells. Ioniser (standard): negative ions generation when ambient air lost freshness. NTP Air Sterilizer (optional): an integrated system which neutralises un-pleasant smells

CONTROLS

IR control handset and led display G11 (standard), wired handset SLM + AC5300 (optional) or Netware 2.

Functions: cooling, heating, auto-changeover, dehumidification, fan only, sleep (Energy Saving)

Features: • 1 day timer (SLM) • 7 day timer (Netware 2) • Self diagnostics • Auto-restart after power failure based on last temperature and mode setting • Memory re-call of two personalised settings



Water Source Heat Pump

Technical Data



Model INDOOR	M5CKWS010CR	M5CKWS010CR	M5CKWS015CR	M5CKWS020CR	M5CKWS020CR	M5CKWS020BR	M5CKWS025BR
Model with COMPRESSOR	M5WSS007AR	M5WSS010AR	M5WSS015AR	M5WSS016AR	M5WSS020AR	M5WSS020AR	M5WSS025AR
Nom. Cooling Capacity kW	2.34	2.93	3.66	4.83	6.44	6.01	7.78
Nom. Heating Capacity kW	2.34	2.93	3.51	4.83	6.44	6.45	8.38
EER - Cooling	4.59	4.51	3.94	4.78	4.57	4.17	5.12
EER - Heating	4.59	4.44	4.13	4.43	3.66	4.24	5.02
Power Supply (V/ph/Hz)	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
Airflow - max. speed (l/s)	193	193	193	212	212	203	236
Heat Exchanger type	Tube IN Tube (Coaxial Coil)						
Water Flow (l/s)	0.13	0.14	0.21	0.26	0.35	0.35	0.39
Sound Power Level - Indoor (dBA)	54/53/51	54/53/51	53/52/50	56/55/53	56/55/53	49/45/40	53/50/47
Sound Power Level - Compress. (dBA)	43	44	46	47	50	50	50
DIMENSIONS & WEIGHT							
INDOOR							
Height (mm)	250	250	250	250	250	293	293
Width (mm)	570	570	570	570	570	650	650
Length (mm)	570	570	570	570	570	650	650
Weight (kg)	22	22	23	23	23	30	31

- Four way air discharge - air swing • Manual and Automatic Fan Speed control
- Two sides pre-set for ducting • Fresh air connection for volumes up to 20% of nominal unit air flow
- In-built condensate lift pump (750 mm) • Saran Net washable filter
- Three-stage Active filter which removes dust and particles with diameters down to 0.01 micron. Its ionised section prevents potential bacteria proliferation and minimises unpleasant smells
- Sleep Mode, automatically adjusts the temperature to optimise unit operation
- Cold draft prevention • 2 compressor protection settings • Return air differential setting based on application

CONTROLS

IR control handset and led display G7 (standard), wired handset SLM + AC5300 (optional) or Netware 2. Functions: cooling, heating, auto-changeover, dehumidification, fan only, sleep (Energy Saving) Features: • 1 day timer (SLM) • 7 day timer (Netware 2) • Self diagnostics • Auto-restart after power failure based on last temperature and mode setting



Model INDOOR	M5CCWS010CR	M5CCWS010CR	M5CCWS015CR	M5CCWS020CR	M5CCWS020CR	M5CCWS025CR	M5CCWS030CR	M5CCWS040CR	M5CCWS050CR	M5CCWS060CR
Model with COMPRESSOR	M5WSS007AR	M5WSS010AR	M5WSS015AR	M5WSS016AR	M5WSS020AR	M5WSS025AR	M5WSS030AR	M5WSS040AR	M5WSS050AR	M5WSS060AR
Nom. Cooling Capacity kW	2.37	2.93	3.58	4.63	6.01	7.62	8.94	11.58	14.65	15.77
Nom. Heating Capacity kW	2.58	3.08	3.75	4.63	6.74	8.21	9.10	11.87	14.95	17.00
EER - Cooling	4.31	4.25	3.62	4.29	4.09	4.92	4.26	4.37	4.13	4.05
EER - Heating	4.61	4.34	3.83	4.45	4.16	4.83	4.17	4.50	4.52	4.42
Power Supply (V/ph/Hz)	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50	380-415/3/50
Airflow - max. speed (l/s)	142	142	241	330	330	345	425	520	750	780
External Static Pressure (Pa)	50	50	50	50	50	50	200	200	150	150
Heat Exchanger type	Tube IN Tube (Coaxial Coil)									
Water Flow (l/s)	0.13	0.14	0.21	0.26	0.35	0.39	0.50	0.58	0.71	0.88
Sound Power Level - Indoor (dBA)	57/54/51	57/54/51	61/58/52	65/64/60	66/64/60	66/64/61	73/69/64	76/72/68	76/73/60	78/75/71
Sound Power Level - Compress. (dBA)	43	44	46	47	50	50	52	54	54	55
DIMENSIONS & WEIGHT										
INDOOR										
Height (mm)	261	261	261	261	261	261	378	378	378	378
Width (mm)	774	774	905	1065	1065	1200	999	1115	1369	1634
Length (mm)	411	411	411	411	411	411	541	541	541	541
Weight (kg)	17	17	21	24	24	29	38	44	50	56

- Manual or automatic Fan speed controller
- Available static pressure up to 200Pa • Washable Saran Net filter (optional)
- Fresh air connection for volumes up to 30% of nominal unit air flow
- Sleep Mode, automatically adjusts the temperature to optimise unit operation
- Dual water drainage pipes • Cold draft prevention • 2 compressor protection settings
- Return air differential setting based on application

CONTROLS

Wired handset SLM +remote control AC5300 (optional) or Netware 2 (optional). Functions: cooling, heating, auto-changeover, dehumidification, fan only, sleep (Energy Saving) Features: • 1 day timer (SLM) • 7 day timer (Netware 2) • Self diagnostics • Auto-restart after power failure based on last temperature and mode setting



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