AWHW SERIES SCREW WATER SOURCE HEAT PUMP UNIT

AirWellTech
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Product Overview



Water (Ground) Source Heat Pump System is a high-efficiency and energy-saving air conditioning system that utilizes shallow geothermal resources (also known as ground energy, including underground water, soil, surface water, etc.) to provide both heating and cooling functions.

By inputting a small amount of electric power, the system transfers low-grade thermal energy to high-grade thermal energy. In winter, ground energy serves as the heat source for heat pump heating, while in summer it acts as the cold source for air conditioning. For every 1 kW of energy consumed by the unit, it can generate more than 4 to 7 kW of cooling or heating capacity. The energy is derived from underground resources, and the system discharges no waste gas, wastewater or solid residues to the external environment, making it an ideal "green air conditioner".

Features

- the features compact structure, high energy efficiency and low operating cost.
- High-efficiency heat exchangers with optimized heat transfer tubes are adopted to effectively improve the unit's energy efficiency ratio.
- Stable performance is maintained all year round without being affected by ambient temperature fluctuations.

Application

It is widely applied in office buildings, hotels, schools, dormitories, hospitals, restaurants, shopping malls, villas, residential buildings and other places.

Model description

AWHW 150 A C 1 D F M

- Power:
- Evaporator Type: D-Dry; F -Flooded M-Fail film.....
- Compressor No: D-2; S-1
- Refrigerant: 4-407C, 1-134A.....
- Features: C-Cooling;
- Design Code: A、B、C.....
- Capacity Code: RT
- Prod. Code: Screw Heat Pump

Specifications

Model AWHW***...			110	150	215	270	265	305	340	365
Cooling Condition	capacity	KW	380	536	748	943	934	1072	1188	1278
		USRT	108	152	213	268	266	305	338	364
	Nominal Power	KW	61	84	114	143	147	168	183.6	199.6
	EER		6.2	6.4	6.6	6.6	6.4	6.4	6.5	6.4
	Nominal current	A	112	154	208	262	268	308	336	365
	Chilled water flow	m³/h	65.1	91.9	128.2	161.6	160.2	183.8	203.7	219.1
	Chilled water Resistance	kPa	54	80	80	90	75	80	80	80
	cooling water flow	m³/h	34.4	48.3	67.1	84.6	84.2	96.6	106.9	115.2
	cooling water Resistance	kPa	40	45	45	40	30	30	30	30
Heating Condition	capacity	KW	401	563	780.4	984	982	1126	1245	1342
		USRT	114	160	222	280	279	320	354	382
	Nominal Power	KW	84	116	156.8	198	202	232	253	275.2
	COP		4.77	4.86	4.98	4.97	4.85	4.86	4.91	4.88
	Nominal current	A	154	185	287	362	370	424	464	504
	Hot water flow	m³/h	68.6	96.5	133.8	168.7	168.4	193.1	213.5	230.0
	Hot water Resistance	kPa	60	80	85	85	72	72	72	74
	Chilled water flow	m³/h	34	47.9	66.8	84.2	83.5	95.9	106.3	114.3
	Chilled water Resistance	kPa	20	28	38	25	25	25	25	25
Max. operating current		A	215	297	402	507	519	594	649	705
Power supply			380V/3N~/50Hz							
Capacity control			25%~ 100%				12.5%~ 100%			
Compressor	Type		Semi-closed screw compressor							
	Start-up method		Y - Δ							
	Qty	Unit	1	1	1	1	2	2	2	2
Condenser	Type		Water cooled shell and tube							
	Connection Size		DN100	DN125	DN150	DN150	DN150	DN150	DN200	DN200
Evaporator	Type		Water cooled shell and tube							
	Connection Size		DN100	DN125	DN150	DN150	DN150	DN150	DN200	DN200
Dimension	Length	mm	3660	3660	3660	3750	4650		4700	
	Width	mm	1750	1750	1850	1850	1850		1900	
	Hight	mm	1800	1800	1900	2200	2200		2250	
Weight	Net	Kg	2940	3550	3910	4210	5406	6035	6239	6392
	Run	Kg	3146	3799	4184	4505	5784	6457	6676	6839

Note:

- Refrigeration nominal working conditions:evaporator inlet/outlet water temperature 12/7°C, Condenser inlet/outlet water temperature 18/29°C.
- Nominal heating conditions:the inlet/outlet water temperature of the evaporator is 15/7°C,and the inlet/outlet water temperature of the condenser is 40/45°C.
- The water pressure drop of evaporator and condenser does not include any external pipes and parts resistance.