TEMPERATURE CONTROL 14/02

AIR TO WATER HEATING / COOLING PUMP

Heat pumps can be used for heating or cooling swimming pools, spas or other open water systems. The water system pressure should be less than 3 bar. (Cannot be used for closed water systems such as air conditioning, ground source heating and so on.)

Product features

High Efficiency
Our heat pumps are highly efficient, taking the energy from the ambient air and transferring that heat to the pool. The heat pump can reach a COP of 5.5.

Safety
Water and electricity are completely separate. ECO friendly gas, no fire, no electricity leakage, safer than fuel burner or electrical heater.

Environmentally Friendly
Choose R407C, R410-A, R22 as refrigerant, according to the requirements of EU Montreal Protocol.

Corrosion Prevention
The condenser uses titanium metal which is 4 to 5 times more corrosion resistant than ordinary copper tubes and is significantly more effective for the prevention of fluoride leakages. Liquids containing seawater or mild industrial water can pass through these systems without any problems.

Intelligent Defrosting
By means of both mechanical and automatic control, defrosting can be operated over a shorter time to avoid severe attenuation of heating capacity in winter and when not in use.

Antifreezing Control
The unit starts up automatic antifreezing control when shutdown (no power off), using of antifreezing heat exchanger, 10 freezing tests, no leakage..

Various protective measures
- Lack-phase and anti-phase protection
- Self memory function when power off
- Overpressure protection
- Leakage refrigerant protection
- Water protection for unit
- Overcurrent protection
- Temperature over protection

Advanced control system
- Displaying operating and trouble status
- Checking real-time operation parameters etc
- The cable length between controller and the unit can be up to 30m for flexible installation (on request)
- Keep balance running of compressor
- Automatically adjusting capacity according to the change of water inlet the temperature
- Can achieve the perfect docking with BMS. Set remote control based on user requirement for easy management and maintenance. And can set multi unit modular operation

Compressor
AQUA uses world famous brand compressor such as COPELAND and GMCC to ensure the highest quality of machine.

TEMPERATURE CONTROL

How does the unit work?

...AS A CHILLER

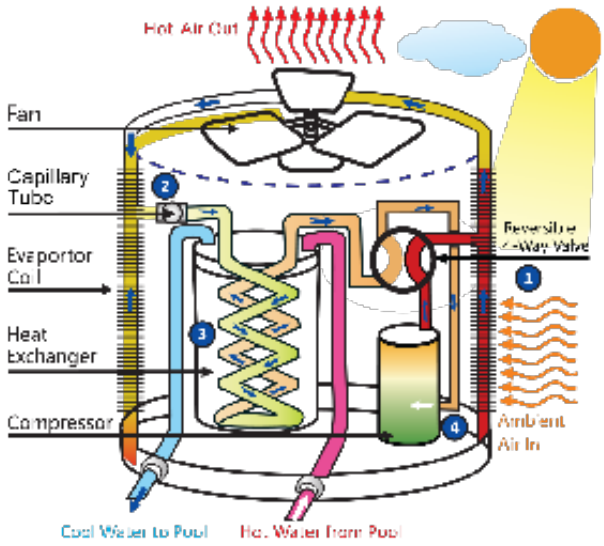
1- STAGE ONE
The temperature of the hot gaseous refrigerant discharged from the compressor is much higher than the outside ambient air temperature. When the outside air passes across the condenser coil, the gaseous refrigerant transfers its heat to the air and condenses into liquid.

2- STAGE TWO
The liquid refrigerant passes through the capillary tube, reducing its pressure and temperature.

3- STAGE THREE
The low temperature refrigerant passes to the heat exchanger evaporator, where the actual heat transfer takes place: the refrigerant absorbs heat from the water pumped into the heat exchanger and evaporates, whereby the water temperature is reduced.

4- STAGE FOUR
The gas refrigerant is then sucked to the compressor and compressed, increasing its pressure and temperature, ready to start the whole cycle once again.

CAPILLARY TUBE



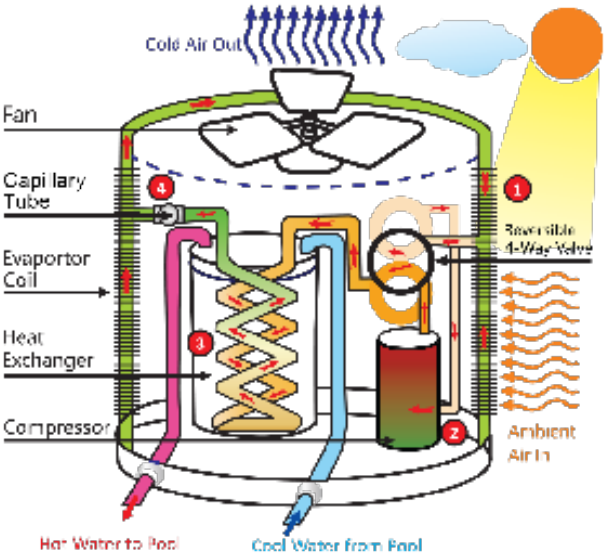
...AS A HEAT PUMP

1- STAGE ONE
The gaseous refrigerant passes to the compressor and is compressed. When compressed, the pressure is increased and the temperature of the vapor rises, effectively concentrating the heat.

2- STAGE TWO
The hot gaseous refrigerant passes to the heat exchanger condenser, where the actual heat transfer takes place: the intensely hot gaseous refrigerant transfers its heat to the water pumped into the heat exchanger and condenses back into a liquid.

3- STAGE THREE
The liquid refrigerant then passes through an capillary tube, reducing its pressure and temperature. The heat transfer medium (the refrigerant) is colder than the outside air.

4- STAGE FOUR
As the outside air passes across the evaporator coil, the liquid refrigerant absorbs heat from the air and evaporates, ready to start the whole cycle once again.



TEMPERATURE CONTROL

TEMPERATURE CONTROL

TOP DISCHARGE

Models

			PH2-02620-60Hz	PH2-02625-60Hz	PH2-02630-60Hz-1	PH2-02630-60Hz-2	PH2-02640-60Hz-2
Refrigerant			R410A	R410A	R410A	R410A	R410A
Power supply		V/PH/Hz	220~240/1/60	220~240/1/60	220~240/1/60	380~415/3/60	380~415/3/60
YL-H01-Heating: A24/W26°C	Heating capacity	kW	9.6	12	14	15.4	18.02
		BTU/h	32,755	40,944	47,768	52,545	61,484
	Power input	kW	1.7	2.2	2.5	3.1	3.4
	COP	W/W	5.58	5.39	5.50	5.04	5.25
YL-H02-Heating: A15/W26°C	Heating capacity	kW	8.1	10.2	11.9	13.1	15.3
		BTU/h	27,584	34,802	40,603	44,663	52,262
	Power input	kW	1.8	2.3	2.6	3.2	3.6
	COP	W/W	4.58	4.40	4.56	4.12	4.29
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	6.9	9.0	10	11	13
		BTU/h	23,637	29,480	34,393	37,832	44,269
	Power input	kW	2.2	2.9	3.5	4.2	5.2
	EER	W/W	3.11	3.00	2.90	2.66	2.47
YL-C02-Cooling: A46/W30	Cooling capacity	kW	5.9	7.3	8.6	9.4	11.0
		BTU/h	20,046	25,058	29,234	32,157	37,628
	Power input	kW	2.5	3.2	3.8	4.6	5.4
	EER	W/W	2.39	2.31	2.23	2.05	2.04
MAX.POWER INPUT		kW	2.7	3.6	4.3	5.3	5.6
MAX.CURRENT		A	13	17	8	9	10
OPERATING	Heating water temp range	°C	15 ~ 40	15-40	15~40	15~40	15~40
	Cooling water temp range	°C	10 ~ 30	10 ~ 30	10 ~ 30	10 ~ 30	10 ~ 30
	Ambient temp range	°C	2 ~ 53	2 ~ 53	2 ~ 53	2 ~ 53	2 ~ 53
KEY	Compressor type		Rotary	Rotary	Scroll	Scroll	Scroll
	Controller		micro processor based digital controller with LCD touch screen display				
	Noise	dB(A)	67	68	69	69	70
HEATING EXCHANGER	Type		Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC
	Water flow (min.)	m^3/h	1.5	1.9	2.3	2.5	2.9
	Water flow (max)	m^3/h	4.8	6.0	7.0	7.7	9.1
	Water pressure drop (max)	KPa	8	10	11	11	12
	Water connecton	mm	Threaded 50	Threaded 1-1/2"	Threaded 1-1/2"	Threaded 1-1/2"	Threaded 1-1/2"
	Water pipe		-	-	-	-	-
FAN	Fan Position		Verticle	Verticle	Verticle	Verticle	Verticle
	Material		Plastic	Plastic	Plastic	Plastic	Plastic
	Air flow	m^3/h	2000	2000	3500	3500	3500
DIMENSIONS (L x W x H)	Net	mm	670 x 670 x 930	670 x 670 x 930	715 x 715 x 980	715 x 715 x 980	715 x 715 x 980
	Shipping	mm	730 x 730 x 1075	730 x 730 x 1075	765 x 765 x 1135	765 x 765 x 1135	765 x 765 x 1135
WEIGHT	-	kg	88/98	98/106	118/130	105/121	111/127

TEMPERATURE CONTROL

			PH2-02650-60Hz	PH2-02660-60Hz	PH2-02670-60Hz	PH2-02680-60Hz	PH2-02685-60Hz
Refrigerant			R410A	R410A	R410A	R410A	R410A
Power supply		V/PH/Hz	380~415/3/60	380~415/3/60	380~415/3/60	380~415/3/60	380~415/3/50
YL-H01-Heating: A24/W26°C	Heating capacity	kW	23.1	27.5	34.1	35	41.0
		BTU/h	78,817	93,830	116,349	119,420	139,892
	Power input	kW	4.7	5.8	6.9	6.4	7.5
	COP	W/W	4.88	4.77	4.95	5.50	5.45
YL-H02-Heating: A15/W26°C	Heating capacity	kW	19.6	23.4	29.0	29.8	34.0
		BTU/h	66,995	79,756	98,897	101,678	116,008
	Power input	kW	4.9	6.0	7.2	6.7	7.6
	COP	W/W	3.99	3.90	4.05	4.48	4.50
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	17	20	25	25	30
		BTU/h	56,748	67,558	83,771	85,982	102,360
	Power input	kW	6.0	7.2	8.8	8.4	9.7
	EER	W/W	2.75	2.75	2.80	3.00	3.10
YL-C02-Cooling: A46/W30	Cooling capacity	kW	14.1	16.8	20.9	21.4	24.5
		BTU/h	48,236	57,424	71,206	73,085	83,526
	Power input	kW	6.7	7.9	9.7	9.3	10.3
	EER	W/W	2.12	2.12	2.15	2.31	2.39
MAX.POWER INPUT		kW	7.2	9.0	11.0	10.4	11.5
MAX.CURRENT		A	13	16	20	19	21
OPERATING	Heating water temp range	°C	15~40	15~40	15~40	15~40	15~40
	Cooling water temp range	°C	10~30	10~30	10~30	10~30	10~30
	Ambient temp range	°C	2~53	2~53	2~53	2~53	2~53
KEY	Compressor type		Scroll	Scroll	Scroll	Scroll	Scroll
	Controller		micro processor based digital controller with LCD touch screen display				
	Noise	dB(A)	71	72	74	75	76
HEATING EXCHANGER	Type		Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC
	Water flow (min.)	m^3/h	3.7	4.4	5.5	5.6	6.6
	Water flow (max)	m^3/h	11.6	13.8	17.1	17.5	20.5
	Water pressure drop (max)	KPa	13	16	20	22	22
	Water connecton	mm	Threaded/1-1/2"	Threaded/1-1/2"	Threaded/1-1/2"	Threaded/1-1/2"	Threaded/63
	Water pipe		-	-	-	-	PPR OR PVC
FAN	Fan Position		Verticle	Verticle	Verticle	Verticle	Verticle
	Material		Plastic	Plastic	Plastic	Plastic	Plastic
	Air flow	m^3/h	5500	5500	6500	7500	9000
DIMENSIONS (L x W x H)	Net	mm	715x715x980	715x715x980	860x860x1085	860x860x1085	950x950x1280
	Shipping	mm	765x765x1135	765x765x1135	920x920x1240	920x920x1240	1025x1025x1430
WEIGHT	-	kg	125/140	128/142	202/220	208 / 226	210 / 230

TEMPERATURE CONTROL

TOP DISCHARGE

Models

			PH2-02690-60Hz	PH2-02695-60Hz	PH2-02710-60Hz	PH2-02712-60Hz	PH2-02713-60Hz
Refrigerant			R410A	R410A	R410A	R410A	R410A
Power supply		V/PH/Hz	380~415/3/60	380~415/3/60	380~415/3/60	380~415/3/60	380~415/3/60
YL-H01-Heating: A24/W26°C	Heating capacity	kW	46.8	54.2	44.0	47.3	60.5
		BTU/h	159,682	184,882	150,128	161,217	206,426
	Power input	kW	8.7	10.2	8.7	8.9	12.8
	COP	W/W	5.40	5.31	5.04	5.29	4.71
YL-H02-Heating: A15/W26°C	Heating capacity	kW	39.0	45.6	37.4	40.2	51.4
		BTU/h	133,068	155,587	127,609	137,034	175,462
	Power input	kW	8.8	10.4	9.1	9.3	13.4
	COP	W/W	4.45	4.40	4.12	4.32	3.85
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	33.0	37.0	32	34.0	43.6
		BTU/h	112,596	126,244	108,092	116,076	148,627
	Power input	kW	11.0	13.0	11.2	11.4	16.7
	EER	W/W	3.00	2.84	2.82	2.97	2.61
YL-C02-Cooling: A46/W30	Cooling capacity	kW	28.1	31.5	26.9	28.9	37.0
		BTU/h	95,707	107.307	91,878	98,665	126,333
	Power input	kW	12.1	14.4	12.4	12.6	18.4
	EER	W/W	2.31	2.19	2.17	2.29	2.01
MAX.POWER INPUT		kW	14.6	17.3	14.0	14.3	20.6
MAX.CURRENT		A	26	31	25	26	37
OPERATING	Heating water temp range	°C	15~40	15~40	15~40	15~40	15~40
	Cooling water temp range	°C	10~30	10~30	10~30	10~30	10~30
	Ambient temp range	°C	2~53	2~53	2~53	2~53	2~53
KEY	Compressor type		Scroll	Scroll	Scroll	Scroll	Scroll
	Controller		micro processor based digital controller with LCD touch screen display				
	Noise	dB(A)	76	80	76	78	80
HEATING EXCHANGER	Type		Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC
	Water flow (min.)	m^3/h	7.5	8.7	7.1	7.6	9.7
	Water flow (max)	m^3/h	23.4	27.0	22.1	23.7	30.4
	Water pressure drop (max)	KPa	23	24	23	23	25
	Water connecton	mm	Threaded/63	Threaded/63	Threaded/63	Threaded/63	Threaded/63
	Water pipe		PPR OR PVC	PPR OR PVC	PPR OR PVC	PPR or PVC	PPR or PVC
FAN	Fan Position		Verticle	Verticle	Verticle	Verticle	Verticle
	Material		Plastic	Plastic	Plastic	Plastic	Plastic
	Air flow	m^3/h	9000	13000	9000	10000	13000
DIMENSIONS (L x W x H)	Net	mm	950x950x1280	950x950x1280	1453x708x1084	1453 x 708 x 1084	1453 x 708 x 1084
	Shipping	mm	1025x1025x1430	1025x1025x1430	1510x775x1225	1510 x 775 x 1225	1510 x 775 x 1225
WEIGHT	-	kg	214 / 234	218 /238	254 / 280	259 /285	285 / 310

TEMPERATURE CONTROL

TOP DISCHARGE

Models

			PH2-02714-60Hz	PH2-02715-60Hz	PH2-02720-60Hz	PH2-02730-60Hz	PH2-02740-60Hz
Refrigerant			R410A	R410A	R410A	R410A	R410A
Power supply		V/PH/Hz	380~415/3/60	380~415/3/60	380~415/3/60	380~415/3/60	380~415/3/50
YL-H01-Heating: A24/W26°C	Heating capacity	kW	73.125	82	100	135	160
		BTU/h	249,503	279,784	34,1200	460,620	545,920
	Power input	kW	14.3	14.9	18.2	24.5	29.1
	COP	W/W	5.11	5.50	5.50	5.50	5.50
YL-H02-Heating: A15/W26°C	Heating capacity	kW	62.2	69.7	85.0	114.8	136.0
		BTU/h	212,077	237,816	290,020	391,527	464,032
	Power input	kW	14.9	15.8	19.7	26.6	31.5
	COP	W/W	4.18	4.40	4.32	4.32	4.32
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	51	59	72	97	115
		BTU/h	175,650	201,444	245,664	331,646	393,062
	Power input	kW	18.1	19.8	24.8	30.4	36.0
	EER	W/W	2.84	2.98	2.90	3.20	3.20
YL-C02-Cooling: A46/W30	Cooling capacity	kW	43.8	50.2	61.2	82.6	97.9
		BTU/h	149,302	171,228	208,814	281,899	334,103
	Power input	kW	20.0	21.9	27.4	33.5	39.7
	EER	W/W	2.19	2.29	2.23	2.46	2.46
MAX.POWER INPUT		kW	22.4	24.5	32.3	39.6	48.4
MAX.CURRENT		A	40	44	58	71	83
OPERATING	Heating water temp range	°C	15~40	15~40	15~40	15~40	15~40
	Cooling water temp range	°C	10~30	10~30	10~30	10~30	10~30
	Ambient temp range	°C	2~53	2~53	2~53	2~53	2~53
KEY	Compressor type		Scroll	Scroll	Scroll	Scroll	Scroll
	Controller		micro processor based digital controller with LCD touch screen display				
	Noise	dB(A)	82	83	84	86	87
HEATING EXCHANGER	Type		Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC
	Water flow (min.)	m^3/h	11.8	13.2	16.1	21.7	25.8
	Water flow (max)	m^3/h	36.7	40.9	49.9	67.4	79.9
	Water pressure drop (max)	KPa	26	27	27	28	28
	Water connecton	mm	63mm/Threaded/2"	63mm/Threaded/2"	Flange/90mm	Flange/110mm	Flange/110mm
	Water pipe		PPR or PVC	PPR or PVC	PVC	PVC	PVC
FAN	Fan Position		Verticle	Verticle	Verticle	Verticle	Verticle
	Material		Plastic	Plastic	Plastic	Plastic	Plastic
	Air flow	m^3/h	15000	18000	22000	28000	33000
DIMENSIONS (L x W x H)	Net	mm	1890 x 1000 x 1328	1890 x 1000 x 1328	1890x1000x1328	2188x1240x2340	2188x1240x2340
	Shipping	mm	1965 x 1075 x 1490	1965 x 1075 x 1490	1965x1075x1490	2275x1325x2530	2275x1325x2530
WEIGHT	-	kg	356/384	404/458	489/517	1100/1130	1150x1180

TEMPERATURE CONTROL

TOP DISCHARGE

Models

			PH2-02750-60Hz	PH2-02760-60Hz	PH2-02765-60Hz	PH2-02770-60Hz	PH2-02780-60Hz
Refrigerant			R410A	R410A	R410A	R410A	R410A
Power supply		V/PH/Hz	380~415/3/60	380~415/3/60	380~415/3/60	380~415/3/60	380~415/3/60
YL-H01-Heating: A24/W26°C	Heating capacity	kW	180	220	235	250	350
		BTU/h	614,160	750,640	801,820	853,000	1,194,200
	Power input	kW	32.7	41.8	45.2	48.5	63.6
	COP	W/W	5.50	5.26	5.20	5.15	5.50
YL-H02-Heating: A15/W26°C	Heating capacity	kW	153.0	187.0	199.8	212.5	297.5
		BTU/h	522,036	638,044	681,547	725,050	1,015,070
	Power input	kW	36.1	43.5	47.0	50.5	72.8
	COP	W/W	4.24	4.30	4.25	4.21	4.09
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	130	157	169	180	252
		BTU/h	442,195	535,684	576,628	614,160	859,824
	Power input	kW	41.8	52.3	56.3	63.2	85.1
	EER	W/W	3.10	3.00	3.00	2.85	2.96
YL-C02-Cooling: A46/W30	Cooling capacity	kW	110.2	134.6	143.8	153.0	214.2
		BTU/h	375,866	459,392	490,714	522,036	730,850
	Power input	kW	46.1	58.3	62.3	69.7	94.0
	EER	W/W	2.39	2.31	2.31	2.19	2.28
MAX.POWER INPUT		kW	51.7	65.3	69.7	78.1	105.3
MAX.CURRENT		A	92	117	125	139	188
OPERATING	Heating water temp range	°C	15~40	15~40	15~40	15~40	15~40
	Cooling water temp range	°C	10~30	10~30	10~30	10~30	10~30
	Ambient temp range	°C	2~53	2~53	2~53	2~53	2~53
KEY	Compressor type		Scroll	Scroll	Scroll	Scroll	Scroll
	Controller		micro processor based digital controller with LCD touch screen display				
	Noise	dB(A)	89	90	90	92	94
HEATING EXCHANGER	Type		Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC	Titanium /PVC
	Water flow (min.)	m^3/h	29.0	35.4	37.8	40.3	56.4
	Water flow (max)	m^3/h	89.9	109.8	117.3	124.8	174.7
	Water pressure drop (max)	KPa	29	30	33	34	35
	Water connecton	mm	Flange/110mm	Flange/110mm	Flange/110mm	Flange/160mm	Flange/160mm
	Water pipe		PVC	PVC	PVC	PPR or PVC	PVC
FAN	Fan Position		Verticle	Verticle	Verticle	Verticle	Verticle
	Material		Plastic	Plastic	Plastic	Plastic	Plastic
	Air flow	m^3/h	39000	44000	44000	55000	77000
DIMENSIONS (L x W x H)	Net	mm	2188x1240x2340	2188x1240x2340	2320x1240x2340	2410x1280x2340	3200x2188x2340
	Shipping	mm	2275x1325x2530	2275x1325x2530	2405x1325x2530	2500x1415x2530	3250x2238x2530
WEIGHT	-	kg	1180/1210	1200/1230	1250/1280	1350/1390	2030/2100

TEMPERATURE CONTROL

			PHFD2-02610-60Hz	PHFD2-02615-60Hz	PHFD2-02620-60Hz	PHFD2-02625-60Hz	PHFD2-02630-1-60Hz
Refrigerant			R410A	R410A	R410A	R410A	R410A
Power supply		V/PH/HZ	220-240/1/60	220-240/1/60	220-240/1/60	220-240/1/60	220-240/1/60
YL-H01-Heating: A24/W26°C	Heating capacity	kW	5.3	7.3	8.6	10.8	14.1
		BTU/h	18,084	24,908	29,343	36,850	48,109
	Power input	kW	1.0	1.4	1.6	2.0	2.7
	COP	W/W	5.25	5.31	5.44	5.33	5.32
YL-H02-Heating: A15/W26°C	Heating capacity	kW	4.1	5.6	6.9	8.9	11.4
		BTU/h	13,989	19,107	23,543	30,367	38,897
	Power input	kW	1	1.4	1.7	2.1	2.9
	COP	W/W	4.1	4	4.3 0	4.21	4.24
YL-H03-Heating: A7/W26°C	Heating capacity	kW	3.7	5.1	6.0	7.5	9.9
		BTU/h	12,659	17,435	20,540	25,590	33,676
	Power input	kW	1.3	1.8	2.0	2.6	3.4
	EER	W/W	2.9	2.9	3.01	2.90	2.90
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	3.2	4.3	5.1	6.4	8.4
		BTU/h	10,760	14,820	17,459	21,837	28,625
	Power input	kW	1.4	1.9	2.2	2.9	3.8
	EER	W/W	2.23	2.23	2.32	2.23	2.23
MAX.	Power input	kW	1.6	2.2	2.9	3.6	4.3
	Current	A	7	11	14	17	20
OPERATING	Water outlet temp.range	°C	15~40	15~40	15~40	15~40	15~40
	Ambient temp.range	°C	2~53	2~53	2~53	2~53	2~53
KEY	Compressor type		Rotary	Rotary	Rotary	Rotary	Scroll
	Noise	dB(A)	64	66	67	68	70
HEAT EXCHANGER	Type		Titanium / PVC	Titanium / PVC	Titanium / PVC	Titanium / PVC	Titanium/PVC
	Water flow (min.)	m^3/h	0.9	1.2	1.4	1.8	2.3
	Water flow (max.)	m^3/h	2.6	3.6	4.3	5.4	7.0
	Water pressure drop(max)	KPa	4	6	7	9	11
	Water pipe		_	-	-	-	_
	Water connection	mm	Flange/50	Flange/50	Flange/50	Flange/50	Flange/50
FAN	Position		horizontal	Horizontal	Horizontal	Horizontal	horizontal
	Air flow	m^3/h	1200	2000	2000	2000	3500
DIMENSIONS (L x W x H)	Net	mm	900 x 340 x 623	900 x 340 x 623	900 x 340 x 623	900 x 340 x 623	1100 x 440 x 673
	Shipping	mm	960 x 400 x 773	960 x 400 x 773	960 x 400 x 773	960 x 400 x 773	1157 x 497 x 823
WEIGHT	-	kg	48 / 55	60 / 71	62 / 73	63 / 75	102/109

TEMPERATURE CONTROL

FRONT DISCHARGE

Models

			PHFD2-02630-2-60Hz	PHFD2-02640-60Hz	PHFD2-02650-60Hz	PHFD2-02660-60Hz	PHFD2-02670-60Hz
Refrigerant			R410A	R410A	R410A	R410A	R410A
Power supply		V/PH/HZ	380-415/3/60	380-415/3/60	380-415/3/60	380-415/3/60	380-415/3/60
YL-H01-Heating: A24/W26°C	Heating capacity	kW	15.7	18	23.5	28.0	34.7
		BTU/h	53,500	61,484	80,250	95,536	118,465
	Power input	kW	3.2	3.5	4.8	5.7	7.0
	COP	W/W	4.9	5.15	4.95	4.90	4.95
YL-H02-Heating: A15/W26°C	Heating capacity	kW	13.3	15.3	20.0	23.8	29.5
		BTU/h	45,475	52,262	68,213	81,206	100,695
	Power input	kW	3.3	3.6	4.8	5.8	7.3
	COP	W/W	4.05	4.30	4.16	4.09	4.03
YL-H03-Heating: A7/W26°C	Heating capacity	kW	11.3	13.0	16.6	19.8	24.6
		BTU/h	38,520	44,269	56,748	67,558	83,771
	Power input	kW	3.9	4.4	6.3	6.8	8.6
	EER	W/W	2.89	2.97	2.66	2.93	2.85
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	9.6	11.0	14.4	17.1	21.2
		BTU/h	32,742	37,628	49,113	58,468	72,500
	Power input	kW	4.3	4.8	6.9	7.5	9.5
	EER	W/W	2.23	2.29	2.08	2.30	2.24
MAX.	Power input	kW	5.3	5.6	7.2	8.9	11.0
	Current	A	9	10	13	16	20
OPERATING	Water outlet temp.range	°C	15~40	15~40	15~40	15~40	15~40
	Ambient temp.range	°C	2~53	2~53	2~53	2~53	2~53
KEY	Compressor type		Scroll	Scroll	Scroll	Scroll	Scroll
	Noise	dB(A)	69	69	71	74	75
HEAT EXCHANGER	Type		Titanium/PVC	Titanium/PVC	Titanium/PVC	Titanium/PVC	Titanium/PVC
	Water flow (min.)	m^3/h	2.5	2.9	3.8	4.5	5.6
	Water flow (max.)	m^3/h	7.8	9.0	11.7	14.0	17.3
	Water pressure drop(max)	KPa	11	12	13	16	20
	Water pipe		_	_	_	_	PPR or PVC
	Water connection	mm	Flange/50	Flange/50	Flange/50	Flange/50	Flange/50
FAN	Position		horizontal	horizontal	horizontal	horizontal	horizontal
	Air flow	m^3/h	3000	3000	3500	5500	7000
DIMENSIONS (L x W x H)	Net	mm	1100 x 440 x 673	1100 x 440 x 673	1100 x 440 x 873	1100 x 440 x 973	1100 x 440 x 1378
	Shipping	mm	1157 x 497 x 823	1157 x 497 x 823	1157 x 497 x 1023	1157 x 497 x 1130	1157 x 497 x 1528
WEIGHT	-	kg	102 / 109	106 / 113	107 / 129	136 / 151	160 / 175

TEMPERATURE CONTROL

FRONT DISCHARGE

Models

			PHFD2-02680-60Hz	PHFD2-02710-60Hz	PHFD2-02712-60Hz	PHFD2-02713-60Hz	PHFD2-02714-60Hz
Refrigerant			R410A	R410A	R410A	R410A	R410A
Power supply		V/PH/HZ	380-415/3/60	380-415/3/60	380-415/3/60	380-415/3/60	380-415/3/60
YL-H01-Heating: A24/W26°C	Heating capacity	kW	36.0	44.0	47.3	61.6	72.8
		BTU/h	122,832	150,128	161,217	210,179	248,394
	Power input	kW	7.1	9.2	8.9	12.5	14.7
	COP	W/W	5.07	4.77	5.29	4.92	4.95
YL-H02-Heating: A15/W26°C	Heating capacity	kW	30.8	37.4	40.2	52.4	61.9
		BTU/h	105,090	127,609	137,034	178,652	211,135
	Power input	kW	7.4	8.9	9.3	12.7	14.6
	COP	W/W	4.16	4.21	4.32	4.11	4.23
YL-H03-Heating: A7/W26°C	Heating capacity	kW	26.5	31.7	34	43.6	52.4
		BTU/h	90,418	108,092	116,076	148,627	178,843
	Power input	kW	8.8	11.2	11.4	15.8	17.6
	EER	W/W	3.01	2.83	2.97	2.75	2.99
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	22.3	26.9	28.9	37.0	44.6
		BTU/h	75,951	91,878	98,665	126,333	152,017
	Power input	kW	9.6	12.4	12.6	17.5	19.4
	EER	W/W	2.32	2.18	2.29	2.12	2.30
MAX.	Power input	kW	11.2	14.0	14.3	20.6	22.4
	Current	A	20	25	26	37	40
OPERATING	Water outlet temp.range	°C	15~40	15~40	15~40	15~40	15~40
	Ambient temp.range	°C	2~53	2~53	2~53	2~53	2~53
KEY	Compressor type		Scroll	Scroll	Scroll	Scroll	Scroll
	Noise	dB(A)	76	78	79	81	83
HEAT EXCHANGER	Type		Titanium/PVC	Titanium/PVC	Titanium/PVC	Titanium/PVC	Titanium/PVC
	Water flow (min.)	m^3/h	5.8	7.1	7.6	9.9	11.7
	Water flow (max.)	m^3/h	18.0	22.0	23.6	30.8	36.3
	Water pressure drop(max)	KPa	22	23	23	25	26
	Water pipe		PPR or PVC	PPR or PVC	PPR or PVC	PPR or PVC	PPR or PVC
	Water connection	mm	Flange/50	Threaded/63	Threaded/63	Threaded/63	Threaded/63
FAN	Position		horizontal	horizontal	horizontal	horizontal	horizontal
	Air flow	m^3/h	7000	10000	10000	13000	15000
DIMENSIONS (L x W x H)	Net	mm	1100 x 440 x 1378	1455 x 755 x 1705	1455 x 755 x 1705	1455 x 755 x 1705	1655 x 755 x 1705
	Shipping	mm	1157 x 497 x 1528	1505 x 805 x 1855	1505 x 805 x 1855	1505 x 805 x 1855	1705 x 805 x 1855
WEIGHT	-	kg	170 / 185	333 / 368	345 / 380	350 / 385	445 / 485

TEMPERATURE CONTROL

FRONT DISCHARGE

Models

			PHFD2-02715-60Hz	PHFD2-02720-60Hz	PHFD2-02730-60Hz	PHFD2-0274-60Hz
Refrigerant			R410A	R410A	R410A	R410A
Power supply		V/PH/HZ	380-415/3/60	380-415/3/60	380-415/3/60	380-415/3/60
YL-H01-Heating: A24/W26°C	Heating capacity	kW	85.5	108	150.0	162.0
		BTU/h	291,726	368,496	511,800	552,744
	Power input	kW	16.1	20.5	29.0	32.0
	COP	W/W	5.31	5.27	5.17	5.06
YL-H02-Heating: A15/W26°C	Heating capacity	kW	71.0	91.1	126.2	136.8
		BTU/h	242,252	310,833	430,680	466,762
	Power input	kW	18.8	22.8	31.0	34.2
	COP	W/W	4.22	4.06	4.07	4.00
YL-H03-Heating: A7/W26°C	Heating capacity	kW	59.9	75.6	106.9	113.4
		BTU/h	204,208	257,947	364,811	386,921
	Power input	kW	20.9	27.0	39.8	41.0
	EER	W/W	2.86	2.80	2.69	2.77
YL-C01-Cooling: A35/W30°C	Cooling capacity	kW	50.9	64.3	90.9	96.4
		BTU/h	173,577	219,255	310,089	328,883
	Power input	kW	22.0	29.8	43.9	45.0
	EER	W/W	2.31	2.16	2.07	2.14
MAX.	Power input	kW	25	33.5	49.0	51.0
	Current	A	45	60	88	91
OPERATING	Water outlet temp.range	°C	15~40	15~40	15~40	15~40
	Ambient temp.range	°C	2~53	2~53	2~53	2~53
KEY	Compressor type		Scroll	Scroll	Scroll	Scroll
	Noise	dB(A)	84	85	86	87
HEAT EXCHANGER	Type		Titanium/PVC	Titanium/PVC	Titanium/PVC	Titanium/PVC
	Water flow (min.)	m^3/h	13.8	17.4	21.7	26.1
	Water flow (max.)	m^3/h	42.7	53.9	67.4	80.9
	Water pressure drop(max)	KPa	27	27	28	28
	Water pipe		PPR or PVC	PPR or PVC	PPR or PVC	PPR or PVC
	Water connection	mm	Threaded/63	Threaded/63	Flange/110	Flange/110
FAN	Position		horizontal	horizontal	horizontal	horizontal
	Air flow	m^3/h	18000	22000	28000	33000
DIMENSIONS (L x W x H)	Net	mm	2188 x 1000 x 1705	2188 x 1000 x 1705	2500 x 1320 x 2340	2500 x 1320 x 2340
	Shipping	mm	2238 x 1085 x 1855	2238 x 1085 x 1855	2585 x 1405 x 2530	2585 x 1405 x 2530
WEIGHT	-	kg	480 / 515	536 / 576	727 / 781	775 / 829

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TEMPERATURE CONTROL

Head Office

AQUA S.p.A
42018 San Martino in Rio, Reggio Emilia
Italy - Via Crotti, 1
P: +39 0522 695805/85 - F +39 0522 646160
aqua@aqua.it | www.aqua.it

AQUA S.p.A - POOL DIVISION
46043 Castiglione d. Stiviere, Mantova - Italy
P +39 0376 671973 - F +39 0376 940139
infopools@aqua.it | www.aqua.it

Branches

AQUA WATER SYSTEMS LTD
Unit 135 Oak Drive Hartlebury Trading Estate,
Worcestershire, DY10 4JB
P : +44 (0)1299 251050, F : +44 (0)1299 253704
sales@askaqua.co.uk | www.askaqua.co.uk

AQUA FILTRACION S.A.
Pol. Ind. Castellbisbal Sud 08755
Castellbisbal, Barcelona
P : +34 (0)93 7711855, F : +34 (0)93 7711772
info@aqua.es | www.aqua.es

AQUA SU ARITIMI SAN. VE MUH. TIC. LTD. STI.
Ferhatpasa Mahallesi Maresal Fevzi Cakmak
Cad. No:45 Pk.34888 Atasehir / Istanbul - Turkey
P : +90 216 661 60 60, F: +90 216 661 68 50
info@aqua.com.tr | www.aqua.com.tr

AQUA MIDDLE EAST FZC
1J-07/4 and 1J-07/3 - Hamriyah Free Zone
P.O.Box 42585 Sharjah - United Arab Emirates
P : +971 6 526 0563, F : +971 6 526 0564
contact@aqua-me.ae
www.aqua-me.ae

AQUA WATER SYSTEMS INDIA PVT LTD
4A/4B/4C-,Puttappa Industrial Estate
Mahadevapura Post, White Field Road,
Bangalore 560 048
P : 0091 80 4152 1313, F : 0091 80 4152 1414
contact@aquaindia.in | sales@aquaindia.in
www.aquaindia.in

AQUA GROUP RUS
Jiuridical Address:
107014, Egerskaya str, 1, Moscow, Russia
Residence Address:
127081, Chermianskaya str, 3, Moscow, Russia
P : +7 495 6458078, F : +7 495 969 2413
mail@aqua-italy.ru | www.aqua-italy-ru
www.aqua.it

AQUA GROUP LLC
Office : Regus – Sarayat EL Maadi, Egypt
Management & Warehouse : Plot no 2-2nd service
axe, 2nd Industrial Zone, October, Egypt
P: +20 2 3820 2259 | info@aqua.eg