

# HEAT PUMP

## Commercial Heat Pump



- Patented high-performance titanium exchanger has more stable performance and greatly resist erosion of chlorine ion water, solid and durable.
- Exterior is powder coated mild steel corrosion resistant casing material
- By using high-heat exchanger technology, 65-80% of running cost can be saved compared with other heating machines. It consumes 1kw to produce about 5.5kw heating capacity, possessing high COP
- Remote and intelligent controller design with Celsius or Fahrenheit temperature display for options
- LCD or colorful LED controller for options
- Super power failure memory
- Flow switch built-in to avoid the low level water or devoid of water
- Advanced technology to mute noise from compressors and fans
- Heating and cooling with reversible defrosting
- Guages installed to read pressure of refrigerant, which is an added advantage to monitor compressors
- Wi-Fi enabled system.
- Gas : R410A
- A provision is available for synchronizing the pool filter pump using a separate cable.

- Note:**
1. Heat pump sizing is influenced by ambient day temperature, humidity, presence of pool cover, night temperature, water features in pool & hours of operation of pool, pool location, wind movement.
  2. Performance of heatpump directly proportionate to the location of installation. For top mount fan heat pumps, space of 2 meters above machine to be provided.
  3. We suggest suitable stabilizer to ensure constant power supply for longer life.

### Sizing chart to heat your pool to 28 deg C (Heat pump model no's given)

Pool Size		Temperate Zone		Warm Zone		Cold Zone	
		8-12 hrs / Day		8-12 hrs / Day		8-12 hrs / Day	
in Mtrs	in Ltrs	with Pool cover	without Pool Cover	with Pool cover	without Pool Cover	with Pool cover	without Pool Cover
3 x 7	Up to 30000	14	26	14	26	17	31
4 x 8	Up to 40000	17	31	14	26	26	2x26
5 x 10	Up to 60000	26	2x26	17	31	31	2x31
6 x 12	Up to 90000	31	2x31	26	2x26	2x26	2x 45
6 x 15	Up to 112000	2x26	2x 45	31	2x31	45	2x 45
6 x 18	Up to 130000	45	2x 45	2x26	2x 45	55	2x 55
6 x 21	Up to 160000	55	2x 55	45	2x 45	55	2x 55
6 x 25	Up to 200000	55	2x 55	55	2x 55	2x 45	2x 90

**Temperate Zone:** where minimum average day temperature between October to March are not less than 18 deg C

**Warm Zone:** where minimum average day temperature between October to March are not less than 25 deg C

**Cold Zone:** where minimum average day temperature between October to March are not less than 10 deg C

# HEAT PUMP

## TECHNICAL SPECIFICATION

Ref.Code			HPC35	HPC45	HPC55	HPC70	HPC90
Operating temp. range		°C	-7~43				
Measuring conditions A26 deg C W 27 deg C @ 80% RH	Heating capacity	KW	38	48	55	82	95
	Input power	KW	6.90	8.70	9.82	16.07	17.00
	Running Current	A	14.5*3	15.2*3	16.8*3	29.7*3	34.0*3
		COP	5.50	5.45	5.60	5.10	5.86
Measuring conditions A15 deg C W 27 deg C @ 80% RH	Heating capacity	KW	28.81	38	42	66.5	73.8
	Input power	KW	6.26	8.00	8.75	13.85	16.20
	Running Current	A	12.9*3	14.2*3	15.6*3	27.7*3	31.1*3
		COP	4.60	4.75	4.80	4.80	4.55
Measuring conditions A 7 deg C W 27 deg C @ 80% RH	Heating capacity	KW	20.65	28.12	30.82	44.40	60.00
	Input power	KW	5.90	7.60	8.40	12.00	15.80
	Running Current	A	12.0*3	13.3*3	14.9*3	24.5*3	29.1*3
		COP	3.50	3.70	3.67	3.70	3.80
Max Heating Input		KW	9.0	11.4	14.0	18.0	20.0
Max Heating Current		A	15.7*3	21.2*3	26.1*3	30.3*3	40.5*3
Power supply		V/PH/HZ	380-400V /3PH/50HZ				
Controller			LED/LCD				
Condenser			Titanium Coil				
Quantity of compressor			2		3		
Compressor			Scroll				
Noise level		Db (A) (1 meter)	60				62
Water connection		inch	2		2-1/2	2-1/2	
Water flow rate		Cu mtr /hr (min -max)	13-19	14-21		25-30	30-36
Net dimension	L	mm	1450		1450	2037	
	W	mm	710		710	1037	
	H	mm	1060		1141	1360	
Weight	Net weight	kg	235	260	260	452	452
	Gross weight	kg	265	290	290	550	550
Function	Heating & cooling with reversible defrosting						

Ref. Code	Cable size recommended	Stabilizer Capacity recommended
HPC35	6 Sq mm 5 Core	12 kva - 3 Phase
HPC45	6 Sq mm 5 Core	15 kva - 3 Phase
HPC55	10 Sq mm 5 Core	15 kva - 3 Phase
HPC70	10 Sq mm 5 Core	30 kva - 3 Phase
HPC90	16 Sq mm 5 Core	35 kva - 3 Phase
HPC105	25 Sq mm 5 Core	40 kva - 3 Phase
HPC135	25 Sq mm 5 Core	40 kva - 3 Phase

**Note:** Please reach Aqvastar office for above details for higher models

A - Air temperature outside

W - Water temperature in pool

**Note:** These Heat pumps are axial fan pumps designed for outdoor installation only.

Cooling capacity details can be provided on request.

# HEAT PUMP

## TECHNICAL SPECIFICATION

Ref.Code			HPC105	HPC120	HPC135	HPC160	HPC210	HPC210P
Operating temp. range		°C	-7~43					
Measuring conditions A26 deg C W 27 deg C @ 80% RH	Heating capacity	KW	108	122	140	170	210	210
	Input power	KW	20.5	21.5	25.45	28.6	37.6	40.7
	Running Current	A	40*3	43*3	52*3	58*3	63.76*3	70*3
		COP	5.79	5.98	5.5	5.95	5.85	5.15
Measuring conditions A15 deg C W 27 deg C @ 80% RH	Heating capacity	KW	86.2	100	112.5	140	185	180
	Input power	KW	18.9	20.4	24.1	28.9	38.6	36
	Running Current	A	38*3	40*3	48.5*3	53*3	60*3	62*3
		COP	4.56	4.89	4.6	4.85	4.79	5.0
Measuring conditions A 7 deg C W 27 deg C @ 80% RH	Heating capacity	KW	70	85	88	120	135	142
	Input power	KW	17.94	18.95	23.2	26.6	32.1	29.5
	Running Current	A	35*3	38*3	44.5*3	48*3	57*3	59*3
		COP	3.9	3.8	3.8	4.5	4.1	4.8
Max Heating Input		KW	25	29.1	34.5	48.5	67.2	60.0
Max Heating Current		A	45.8*3	52.2*3	61.5*3	87*3	121.1*3	130*3
Power supply		V/PH/HZ	380-400V /3PH/50HZ					
Controller			LED/LCD					
Condenser			Titanium Coil					
Quantity of compressor			3	3	4	4	2	4
Compressor			Scroll					
Noise level		Db (A) (1 meter)	63	≤66	65	≤66	≤70	72
Water connection		inch	3	3	3	3	4	3
Water flow rate		Cu mtr /hr (min -max)	45-50	50-55	70-77	75-85	85	65-80
Net dimension	L	mm	2000	2000	2000	2150	2150	2100
	W	mm	1100	1100	1100	1078	1078	2100
	H	mm	2080	2080	2080	2258	2258	2000
Weight	Net weight	kg	540	540	540	900	1200	1850
	Gross weight	kg	587	587	587	940	1250	1900
Function			Heating & cooling with reversible defrosting					

A - Air temperature outside

W - Water temperature in pool

**Note:** These Heat pumps are axial fan pumps designed for outdoor installation only.  
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