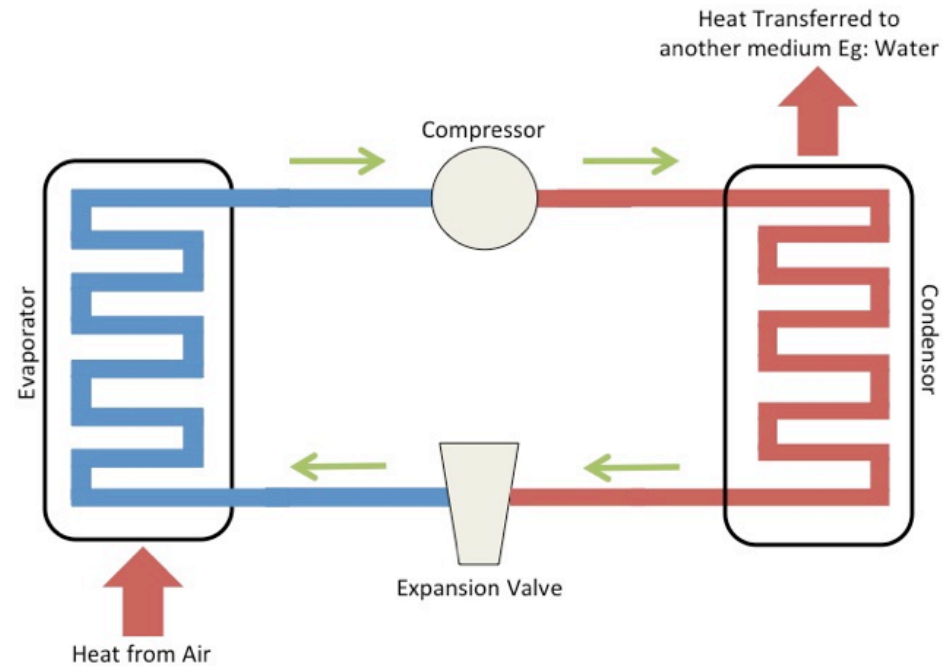




Global Green
Heat Pump Catalogue 2014

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How does a Heat Pump work?



There are 4 main components to the Heat Pump:

1. The evaporator houses the refrigerant that is maintained at a temperature lower than the outside air. This causes heat to be transferred to the refrigerant, thus causing it to evaporate
2. The evaporated vapour moves to the compressor and reaches a higher temperature and pressure
3. The heated vapour enters the condenser and transfers heat to the medium to be heated during the condensation process
4. The condensed refrigerant moves to the expansion valve and undergoes a drop in pressure and temperature before returning to the evaporator again

Air Sourced Heat Pump vs Conventional Heaters

Coefficient of Performance (COP) measures the efficiency of a heating device. The more efficient the device is, the higher the COP will be. Air Source Heat Pumps have a COP of 3.00 to 4.00 or above. This means that 3kWh to 4kWh of heating energy is produced for every 1kWh of electricity used to power the Heat Pump.

Heater Type	Energy Consumption	Heat Value	COP	Environmental Pollution	Equipment Lifespan	Safety	Initial Installation Cost
Air Source Heat Pump	Electricity	3600J/kwh	4.8	Minimal Pollution	10 years	Safe	Low
Gas Water Heater	Gas	35590J/m2	0.6	Pollutive	5 years	Dangerous	High
Electric Water Heater	Electricity	3600J/kwh	0.9	Pollutive	5 years	Safe	Low
Fuel Boiler	Diesel	43126J/kg	0.6	Pollutive	5 years	Dangerous	High
Coal Boiler	Coal	18842J/kg	0.35	Extremely Pollutive	5 years	Dangerous	High
Solar Energy	Electric Auxiliary	3600J/kwh	0.9	Minimal Pollution	10 years	Safe	Highest

Residential Pool

Global Green Heat Pumps for Swimming Pool & Spas incorporate Titanium Tubes as heat exchangers to allow for better resistance against chlorine corrosion.

MODEL	UNITS	ESRP-3	ESRP-5	ESRP-8	ESRP-9	ESRP-15
Heating Capacity	KW	4.5	7.0	9.8	13.5	21.3
COP	-	5.0	4.8	4.8	4.3	5.0
Cooling Capacity	KW	3.1	4.5	6.2	8.9	14.7
EER	-	2.9	2.7	2.8	2.7	2.7
Max Water Outlet Temp	Celsius	45.0				
Power Supply	V/PH/HZ	220-240V/1N~/50Hz				380V-415V/3N~/50Hz
Rated Input Power (Heating/Cooling)	KW	0.9/1.05	1.45/1.65	2.06/2.20	3.12/3.30	4.3/5.50
Rated Input Current (Heating/Cooling)	A	4.3/5.0	6.9/7.9	9.9/10.5	14.9/15.8	8.2/10.4
Max Input Power	KW	1.4	1.9	2.5	3.4	6.1
Max Input Current	A	6.7	9.1	12.0	16.3	11.6
Ambient Temperature	Celsius	-7 to 43				
Recommended Pool Volume	m3	1-6	6-10	10-18	18-30	30-50
Heat Exchanger	-	Titanium Tube in PVC Shell				
Refrigerant	-	R410A			R407C	
Compressor Type	-	Rotary			Scroll	
Number of Compressors	-	1.0				
Number of Fans	-	1.0				2.0
Fan Air Flow Volume	m3/h	2000.0	2000.0	2600.0	3900.0	6500.0
Fan Direction	-	Horizontal				
Fan Power Input	W	20.0		40.0	90.0	90X2
Fan Rotation Speed	RPM	850.0			750.0	850.0
Noise	db(A)	≤48		≤50	≤54	≤56
Piping Diameter	-	Rc1-1/2"				
Discharge Pressure	Mpa	2.5				
Suction Pressure	Mpa	0.3-0.8				
Rated Water Pressure	Mpa	0.2-0.6				
Water Flow Volume	m3/h	1.3-1.9	2.0-3.0	2.8-4.2	3.9-5.8	6.1-9.1
Net Weight	Kg	38.0	45.0	68.0	95.0	114.0
Heat Pump Dimension	mm	930/350/550		1010/350/620	1115/425/710	1110/420/1222

Commercial Pool

Global Green Heat Pumps for Swimming Pool & Spas incorporate Titanium Tubes as heat exchangers to allow for better resistance against chlorine corrosion.

MODEL	UNITS	ESCP-24	ESCP-30	ESCP-36	ESCP-45	ESCP-60	ESCP-75	ESCP-95	
Heating Capacity	KW	35.5	45.5	52.8	66.0	87.4	110.0	140.0	
COP	-	4.9	4.8	4.7	4.5	4.7	4.7	4.9	
Cooling Capacity	KW	25.5	30.5	35.8	44.9	59.5	75.0	95.2	
EER	-	3.0	2.8	2.9	2.8	2.7	2.8	2.8	
Max Water Outlet Temp	Celsius	45.0							
Power Supply	V/PH/HZ	380V-415V/3N~/50Hz							
Rated Input Power (Heating/Cooling)	KW	7.30/8.50	9.40/11.00	11.15/12.50	14.90/16.20	18.80/22.00	23.30/26.80	28.80/33.60	
Rated Input Current (Heating/Cooling)	A	13.9/16.1	17.9/20.9	21.2/23.7	28.1/30.8	35.7/41.8	44.3/50.9	54.7/63.8	
Max Input Power	KW	10.0	13.5	15.1	18.9	25.4	31.5	38.8	
Max Input Current	A	19.0	25.6	28.7	35.9	48.2	59.8	73.7	
Ambient Temperature	Celsius	-7 to 43							
Recommended Pool Volume	m3	50-80	80-100	100-120	120-150	150-200	200-250	250-300	
Heat Exchanger	-	Titanium Tube in PVC Shell							
Refrigerant	-	R407C							
Compressor Type	-	Scroll							
Number of Compressors	-	2.0							
Number of Fans	-	2.0							
Fan Air Flow Volume	m3/h	13000.0			19500.0	28000.0		38000.0	
Fan Direction	-	Vertical							
Fan Power Input	W	250X2			550X2	750X2		1100X2	
Fan Rotation Speed	RPM	850.0			910.0	940.0		920.0	
Noise	db(A)	≤61	≤61	≤66	≤66	≤66	≤68	≤70	
Piping Diameter	-	RC2"				RC3"			
Discharge Pressure	Mpa	2.5							
Suction Pressure	Mpa	0.3-0.8							
Rated Water Pressure	Mpa	0.2-0.6							
Water Flow Volume	m3/h	10.0	13.0	15.0	19.0	25.0	31.0	40.0	
Net Weight	Kg	214.0	244.0	276.0	450.0	472.0	680.0	720.0	
Heat Pump Dimension	mm	1450/705/965	1450/705/1065	1450/710/1255	1580/850/1570	1990/980/2050		1900/1020/2050	

Spa

Global Green Heat Pumps for Swimming Pool & Spas incorporate Titanium Tubes as heat exchangers to allow for better resistance against chlorine corrosion.

MODEL	UNITS	ESSP-6	ESSP-8	ESSP-10	ESSP-12
Heating Capacity	KW	5.8	7.6	10.3	12.1
COP	-	5.5	5.4	5.5	5.4
Max Water Outlet Temp	Celsius	50.0			
Power Supply	V/PH/HZ	220V-240V/1N~/50Hz			
Rated Input Power	KW	1.1	1.4	1.9	2.2
Rated Input Current	A	5.1	6.8	9.0	10.1
Max Input Power	KW	1.5	2.0	2.6	3.2
Max Input Current	A	6.9	9.4	12.6	15.1
Ambient Temperature	Celsius	-7 to 43			
Recommended Pool Volume	m3	1-3	3-6	6-8	8-10
Heat Exchanger	-	Titanium Tube in PVC Shell			
Refrigerant	-	R410A			
Compressor Type	-	Rotary			
Number of Compressors	-	1.0			
Throttling Device	-	Capillary			
Number of Fans	-	1			
Fan Air Flow Volume	m3/h	2000.0		2600.0	
Fan Direction	-	Horizontal			
Fan Power Input	W	20.0	20.0	40.0	40.0
Fan Rotation Speed	RPM	850			
Noise	db(A)	≤48	≤48	≤54	≤54
Piping Diameter	-	Rc1-1/2"			
Discharge Pressure	Mpa	2.2-3.8			
Suction Pressure	Mpa	0.8-1.6			
Water Circulation Pressure Drop	KPA	30			
Water Flow Volume	m3/h	1.7-2.5	2.2-3,3	2.9-4.4	3.5-5.2
Net Weight	Kg	45.0	50.0	60.0	66.0
Heat Pump Dimension	mm	930/350/550		1010/350/620 1010/350/620	

All-in-one Residential Heat Pump

All-in-one Heat Pumps are standalone units that comprises of both the heater and the water tank within a single unit thus allowing for easy installation.

MODEL	UNITS	ESRA-150	ESRA-200	ESRA-250	ESRA-300
Heating Capacity	KW	1.8			
COP	-	3.6			
Water Tank Volume	L	150	200	250	300
Recommended Household Size	People	1-4	4-6		6-8
Power Supply	V/PH/HZ	220V-240V/1N~/50Hz			
Rated Input Power	KW	0.5			
Rated Input Current	A	2.4			
Rated Heated Water Output Volume	L/h	39			
Rated Water Outlet Temperature	Celsius	55			
Max Water Outlet Temperature	Celsius	60			
Ambient Temperature	Celsius	0 to 43			
Heat Exchanger	-	External Coil			
Refrigerant	-	R134A			
Compressor Type	-	Rotary			
Number of Compressors	-	1.0			
Throttling Device	-	Electrical Expansion Valve			
Number of Fans	-	1			
Fan Direction	-	Horizontal			
Fan Power Input	W	200			
Fan Rotation Speed	RPM	920			
Noise	db(A)	43			
Piping Diameter	-	G3/4"			
Low Pressure Protection System	-	Yes			
High Pressure Protection System	-	Yes			
Water Flow Switch	-	No			
Automatic Defrosting System	-	Yes			
Net Weight	Kg	73	90	99	107
Heat Pump Dimension	mm (circumference/height)	560/1475	560/1760	560/1900	640/1860

Split Heat Pump

Split Heat Pumps come along with their own floor standing or wall mounted water tank.

With a maximum distance of 3 metres between the water tank and the heating unit, Split Heat Pumps can be easily incorporated into your house with minimal fuss.

MODEL	UNITS	ESSHP-80-100	ESSP-80-150	ESSHP-120-100	ESSHP-120-200	ESSHP-120-320
Heating Capacity	KW	3.5		4.9		
COP	-	4.1		4.0		
Water Tank Volume	L	150.0	200.0	100.0	200.0	320.0
Recommended Household Size	People	1-4		1-3	1-4	5-6
Max Piping Length Between Heat Pump and Water Tank	M	3.0				
Power Supply	V/PH/HZ	220-240V/1N~/50HZ				
Rated Input Power	KW	0.9		1.2		
Rated Input Current	A	4.1		5.9		
Rated heated water output volume	L/h	75.0		105.0		
Rated water outlet temperature	Celsius	55.0				
Max water outlet temp	Celsius	60.0				
Ambient Temperature	Celsius	-7 to 43				
Heat Exchanger	-	Copper Coil Pipe				
Refrigerant	-	R410A				
Compressor Type	-	Rotary				
Number of Compressors	-	1.0				
Throttling Device	-	Capillary				
Number of Fans	-	1.0				
Fan Direction	-	Horizontal				
Fan Power Input	W	20.0				
Fan Rotation Speed	RPM	830.0				
Noise	db(A)	Less than or Equal to 54				
Piping Diameter	-	Rc3/4"				
Low Pressure Protection System	-	Yes				
High Pressure Protection System	-	Yes				
Water Flow Switch	-	No				
Automatic Defrosting System	-	Yes				
Heat Pump Net Weight	Kg	31.0		33.0		
Water Tank Net Weight	Kg	28.0	34.0	28.0	48.0	58.0
Heat Pump Dimensions	mm	850/260/540				
Water Tank Dimensions	mm(circumference/ height)	470/1121	470/1592	470/1121	555/1333	565/1839
Package Dimensions	mm	930/370/620				

Monobloc Heat Pump

Monobloc Heat Pumps are incorporated with a highly efficient heat exchanger. This maximizes savings as you indulge in the comforts of hot water consumption.

This range of Heat Pumps can be attached to any water tank

MODEL	UNITS	ESMHP-80	ESMHP-120	ESMHP-160	ESMHP240	ESMHP-400	ESMHP-480	
Heating Capacity	KW	3.5	5.0	7.4	11.2	18.6	22.3	
COP	-	4.1	4.2	4.0	4.5	4.1	4.5	
Recommended Water Tank Volume	L	100-150	150-300	300-500		500.0		
Recommended Household Size	People	1-3	3-6	5-6				
Power Supply	V/PH/HZ	220V-240V/1N~/50Hz				380-415V/3~/50HZ	220-240V//1N~/50HZ	
Rated Input Power	KW	0.9	1.2	1.9	2.5	4.5	5.0	
Rated Input Current	A	4.1	5.7	8.9	12.0	8.6	23.9	
Rated heated water output volume	L/h	75.0	110.0	160.0	240.0	400.0	480.0	
Rated water outlet temperature	Celsius	55.0						
Max water outlet temp	Celsius	60.0						
Ambient Temperature	Celsius	-7 to 43						
Heat Exchanger	-	High Efficiency Tube in Shell Heat Exchanger						
Refrigerant	-	R410A/R134A		R417A		R407C		
Compressor Type	-	Rotary				Scroll		
Number of Compressors	-	1.0				2.0		
Throttling Device	-	Capillary		EEV	Emerson Thermal Expansion Valve			
Number of Fans	-	1.0				2.0		
Fan Direction	-	Horizontal						
Fan Power Input	W	20.0	20.0	40.0	50.0	90.0	90.0	
Fan Rotation Speed	RPM	830.0	830.0	850.0	850.0	750.0	750.0	
Noise	db(A)	≤54	≤54	≤55	≤59	≤62	≤62	
Piping Diameter	-	Rc3/4"			R1"		R1-1/2"	
Low Pressure Protection System	-	Yes						
High Pressure Protection System	-	Yes						
Water Flow Switch	-	No						
Automatic Defrosting System	-	Yes						
Heat Pump Net Weight	Kg	55.0	62.0	66.0	110.0	155.0	190.0	
Heat Pump Dimensions	mm	710/310/940		1005/305/587	800/400/1220	1110/530/1260	1430/700/860	
Package Dimensions	mm	755/380/950		1040/360/640	850/476/1235	1130/590/1285	1570/840/1050	

Commercial Cycle

Cyclical Heating Heat Pumps are meant for businesses that have minimal space constraints. The Heat Pump works by heating the water in incrementals of 5°C, until the desired temperature, as it is cycled to and fro the heater and water tank.

MODEL	UNITS	ESCC-10	ESCC-20	ESCC-35	ESCC-45	ESCC-55	ESCC-70	ESCC-90	
Heating Capacity	KW	11.2	18.0	36.3	43.7	54.5	69.8	87.4	
COP	-	4.7	4.6	4.7	4.6	4.7	4.6	4.6	
Power Supply	V/PH/HZ	220-240V/1N~/50HZ	380-415V/3~/50HZ						
Rated Input Power	KW	2.4	3.9	7.8	9.5	11.6	15.2	18.9	
Rated Input Current	A	11.5	7.4	14.8	17.9	22.0	28.9	35.8	
Rated heated water output volume	L/h	241.0	388.0	780.0	940.0	1170.0	1500.0	1882.0	
Rated water outlet temperature	Celsius	55.0							
Max water outlet temp	Celsius	60.0							
Ambient Temperature	Celsius	-7 to 43							
Heat Exchanger	-	High Efficiency in Shell Heat Exchanger							
Refrigerant	-	R407C							
Compressor Type	-	Scroll							
Number of Compressors	-	1.0			2.0				
Throttling Device	-	Emerson Thermal Expansion Valve							
Number of Fans	-	1.0			2.0				
Fan Direction	-	Vertical							
Fan Power Input	W	70.0	250.0			550.0	750.0		
Fan Rotation Speed	RPM	850.0				910.0	940.0	940.0	
Noise	db(A)	≤59	≤62	≤63		≤66	≤68	≤68	
Piping Diameter	-	R1"			R1-1/2"		Rc2"	Rc2-1/2"	
Low Pressure Protection System	-	Yes							
High Pressure Protection System	-	Yes							
Water Flow Switch	-	No							
Automatic Defrosting System	-	Yes							
Heat Pump Net Weight	Kg	99.0	137.0	276.0	305.0	380.0	552.0	586.0	
Heat Pump Dimensions	mm	710/710/795	810/810/995	1450/705/1375		1445/850/1850	1990/980/2045		
Package Dimensions	mm	810/810/980	920/920/1080	1580/840/1450		1580/860/2000	2090/1190/2145		

Commercial Direct

Cyclical Heating Heat Pumps are meant for businesses that grapple with space constraints. The Heat Pump directly heats the water to the required temperature before discharging it to the water tank for storage.

MODEL	UNITS	ESCD-10	ESCD-20	ESDC-35	ESCD-45	ESCD-55	ESCD-70	ESCD-90	
Heating Capacity	KW	11.2	18.0	36.3	43.7	54.5	69.8	87.4	
COP	-	4.7	4.6	4.7	4.6	4.7	4.6	4.6	
Power Supply	V/PH/Hz	220-240V/1N~50HZ		380-415V/3~50HZ					
Rated Input Power	KW	2.4	3.9	7.8	9.5	11.6	15.2	18.9	
Rated Input Current	A	11.5	7.4	14.8	17.9	22.0	28.9	35.8	
Rated heated water output volume	L/h	241.0	388.0	780.0	940.0	1170.0	1500.0	1882.0	
Rated water outlet temperature	Celsius	55.0							
Max water outlet temp	Celsius	60.0							
Ambient Temperature	Celsius	-7 to 43							
Heat Exchanger	-	High Efficiency in Shell Heat Exchanger							
Refrigerant	-	R407C							
Compressor Type	-	Scroll							
Number of Compressors	-	1.0			2.0				
Throttling Device	-	Emerson Thermal Expansion Valve							
Number of Fans	-	1.0			2.0				
Fan Direction	-	Vertical							
Fan Power Input	W	70.0	250.0			550.0	750.0		
Fan Rotation Speed	RPM	850.0				910.0	940.0	940.0	
Noise	db(A)	≤59	≤62	≤63		≤66	≤68	≤68	
Piping Diameter	-	R1"		R1-1/2"		Rc2"	Rc2-1/2"		
Low Pressure Protection System	-	Yes							
High Pressure Protection System	-	Yes							
Water Flow Switch	-	No							
Automatic Defrosting System	-	Yes							
Heat Pump Net Weight	Kg	99.0	137.0	276.0	305.0	380.0	552.0	586.0	
Heat Pump Dimensions	mm	710/710/795	810/810/995	1450/705/1375		1445/850/1850	1990/980/2045		
Package Dimensions	mm	810/810/980	920/920/1080	1580/840/1450		1580/860/2000	2090/1190/2145		

High Temperature Heat Pumps

High Temperature Heat Pumps work in the same fashion as Cyclical Heating Heat Pumps but are able to hit a higher temperature of 80°C.

MODEL	UNITS	ESHT-13	ESHT-26	ESHT-45
Heating Capacity	KW	12.8	25.6	45.4
COP	-	2.5	2.6	2.5
Power Supply	V/PH/Hz	380-415V/3~/50HZ		
Rated Input Power	KW	5.1	10.0	17.9
Rated Input Current	A	9.6	19.0	34.1
Rated heated water output volume	L/h	183.0	367.0	650.0
Rated water outlet temperature	Celsius	75.0		
Max water outlet temp	Celsius	80.0		
Ambient Temperature	Celsius	-15 to 43		
Heat Exchanger	-	High Efficiency in Shell Heat Exchanger		
Refrigerant	-	R134A		
Compressor Type	-	Scroll		
Number of Compressors	-	1.0	2.0	
Throttling Device	-	Emerson Thermal Expansion Valve/EEV		
Number of Fans	-	1.0	2.0	
Fan Direction	-	Vertical		
Fan Power Input	W	250.0	750.0	
Fan Rotation Speed	RPM	880.0		940.0
Noise	db(A)	≤62	≤65	≤68
Piping Diameter	-	R1"	R1-1/2"	R2"
Hot Water Circulate Flow	m3/h	2.8	5.5	9.8
Hot Water Circulation Pressure Drop	kPa	65.0	70.0	
Low Pressure Protection System	-	Yes		
High Pressure Protection System	-	Yes		
Water Flow Switch	-	No		
Automatic Defrosting System	-	Yes		
Heat Pump Net Weight	Kg	148.0	296.0	600.0
Heat Pump Dimensions	mm	810/810/995	1450/705/1375	1990/980/2045

Extreme Low Temperature

Low Ambient Temperature heat pumps are designed to operate at ambient temperatures of up to -25°C. Despite minimal heat in the surroundings, we are still able to maximize all the heat in the air to provide heated water of up to 60°C.

MODEL	UNITS	ESLTA-240	ESLTA-400	ESLTB-10	ESLTB-20	ESLTB-35	ESLTB-70
Heating Capacity	KW	10.3	17.8	10.3	17.8	37.4	69.8
COP	-	4.4	4.4	4.4	4.4	4.4	4.6
Power Supply	V/PH/Hz	220-240V/1N~/50HZ			380-415V/3~/50HZ		
Rated Input Power	KW	2.3	4.0	2.3	4.0	8.5	15.2
Rated Input Current	A	11.1	7.6	11.1	7.6	16.1	28.9
Rated heated water output volume	L/h	220.0	381.0	220.0	381.0	800.0	1500.0
Rated water outlet temperature	Celsius	55.0					
Max water outlet temp	Celsius	60.0					
Ambient Temperature	Celsius	-25 to 43					
Heat Exchanger	-	High Efficiency in Shell Heat Exchanger					
Refrigerant	-	R407C					
Compressor Type	-	Scroll					
Number of Compressors	-	1.0				2.0	
Throttling Device	-	Emerson Thermal Expansion Valve					
Number of Fans	-	1.0	2.0	1.0	2.0		
Fan Direction	-	Horizontal			Vertical		
Fan Power Input	W	50.0	90.0	70.0	250.0		750.0
Fan Rotation Speed	RPM	850.0	750.0	850.0			940.0
Noise	db(A)	≤59	≤63	≤59	≤62	≤63	≤68
Piping Diameter	-	Rc1"		R1"		R1-1/2"	Rc2-1/2"
Low Pressure Protection System	-	Yes					
High Pressure Protection System	-	Yes					
Water Flow Switch	-	No					
Automatic Defrosting System	-	Yes					
Heat Pump Net Weight	Kg	110.0	155.0	107.0	129.0	285.0	552.0
Heat Pump Dimensions	mm	800/400/1220	1110/530/1260	710/710/795	810/810/995	1450/70	1990/980/2045
Package Dimensions	mm	850/476/1235	1130/590/1285	810/810/980	920/920/1080	1580/860/1450	2090/1190/2145

Multifunctional Heat Pumps

Multifunctional Heat Pumps are able to provide hot water, hot air, and cold air without compromising on the quality of the specific functions. It can produce Heated Water and Heated Air, or Heated Water and Chilled air at the same time.

MODEL	UNITS	ESMF-10	ESMF-20	ESMF-35	ESMF-45	ESMF-55	ESMF-70	ESMF-90
Hot Water Capacity	KW	11.2	18.0	36.3	43.7	54.4	69.8	87.4
COP (for Hot Water only)	-	4.7	4.6	4.7	4.6	4.7	4.6	4.6
Heating Capacity (as Air Heater only)	KW	7.9	13.0	27.5	32.5	42.0	52.0	68.0
COP (for Hot Air only)	-	3.3	3.3	3.5	3.4	3.6	3.4	3.6
Cooling Capacity	KW	7.5	12.8	25.3	31.0	40.0	50.0	65.0
EER	-	2.9	3.2	3.1	3.2	3.2	3.1	3.4
Power Supply	V/PH/HZ	220-240V/1N~/50HZ			380-415V/3~/50HZ			
Heating Rated Input Power	KW	2.4	3.9	7.8	9.5	11.6	15.2	18.9
Heating Rated Input Current	A	11.5	7.4	14.8	17.9	22.0	28.9	35.8
Cooling Rated Input Power	KW	2.6	4.0	8.3	9.7	12.5	16.0	19.0
Cooling Rated Input Current	A	12.4	7.6	15.7	18.4	23.7	30.4	36.1
Rated Heated Water Output	L/H	241.0	388.0	780.0	940.0	1170.0	1500.0	1882.0
Rated Water Outlet Temperature	Celsius	55.0						
Max Water Outlet Temperature	Celsius	60.0						
Air Output Temperature Range	Celsius	16-30						
Hot Water Circulation Flow	m3/h	1.9	3.1	6.2	7.5	9.4	12.0	15.0
Hot Water Circulation Pressure Drop	kPa	30.0	60.0	65.0	65.0	70.0	65.0	70.0
Chilled Water Circulation Flow	m3/h	1.4	2.2	4.7	5.6	7.2	8.9	11.7
Chilled Water Circulation Pressure Drop	kPa	30.0	40.0	40.0	50.0	55.0	50.0	50.0
Ambient Temperature	Celsius	-7 to 43						
Heat Exchanger	-	Stainless Steel Brass Plate Heat Exchanger						
Refrigerant	-	R407C						
Compressor Type	-	Scroll						
Number of Compressors	-	1.0			2.0			
Throttling Device	-	Emerson Thermal Expansion Valve						
Number of Fans	-	1.0			2.0			
Fan Direction	-	Vertical						
Fan Power Input	W	70.0	250.0			550.0	750.0	
Fan Rotation Speed	RPM	850.0				910.0	940.0	940.0
Noise	db(A)	≤59	≤62	≤63		≤66	≤68	≤68
Piping Diameter	-	R1"		R1-1/2"		Rc2"	Rc2-1/2"	
Low Pressure Protection System	-	Yes						
High Pressure Protection System	-	Yes						
Water Flow Switch	-	No						
Automatic Defrosting System	-	Yes						
Heat Pump Net Weight	Kg	112.0	137.0	311.0	324.0	406.0	584.0	626.0
Heat Pump Dimensions	mm	710/710/795	810/810/995	1450/705/1375		1445/850/1850	1990/980/2045	
Package Dimensions	mm	810/810/980	920/920/1080	1580/840/1450		1580/860/2000	2090/1190/2145	

Air Chiller

Air cooled chillers function like any conventional heater. It provides both hot air and chilled air whenever you desire. The heated or chilled water is piped around the compound and attached to a fan at various sections thus providing comfortably chilled or heated air for you.

MODEL	UNITS	ESAC-10	ESAC-20	ESAC-35	ESAC-45	ESAC-55	ESAC-70	ESAC-90	
Heating Capacity	KW	7.9	13.0	27.5	32.5	42.0	52.0	68.0	
COP	-	3.3	3.3	3.5	3.4	3.6	3.4	3.6	
Power Supply	V/PH/HZ	220-240V/1N~/50HZ	380-415V/3~/50HZ						
Cooling Capacity	KW	7.5	12.8	25.3	31.0	40.0	50.0	65.0	
EER	-	2.9	3.2	3.1	3.2	3.2	3.1	3.4	
Heating Rated Input Power	KW	2.4	3.9	7.8	9.5	11.6	15.2	18.9	
Heating Rated Input Current	A	11.5	7.4	14.8	17.9	22.0	28.9	35.8	
Cooling Rated Input Power	KW	2.6	4.0	8.3	9.7	12.5	16.0	19.0	
Cooling Rated Input Current	A	12.4	7.6	15.7	18.4	23.7	30.4	36.1	
Air Output Temperature Range	Celsius	16-30							
Ambient Temperature	Celsius	-7 to 43							
Heat Exchanger	-	Stainless Steel Brass Plate Heat Exchanger							
Refrigerant	-	R407C							
Compressor Type	-	Scroll							
Number of Compressors	-	1.0			2.0				
Throttling Device	-	Emerson Thermal Expansion Valve							
Number of Fans	-	1.0			2.0				
Fan Direction	-	Vertical							
Fan Power Input	W	70.0	250.0			550.0	750.0		
Fan Rotation Speed	RPM	850.0				910.0	940.0	940.0	
Noise	db(A)	≤59	≤62	≤63		≤66	≤68	≤68	
Piping Diameter	-	R1"		R1-1/2"		Rc2"	Rc2-1/2"		
Low Pressure Protection System	-	Yes							
High Pressure Protection System	-	Yes							
Water Flow Switch	-	No							
Automatic Defrosting System	-	Yes							
Heat Pump Net Weight	Kg	112.0	137.0	311.0	324.0	406.0	584.0	626.0	
Heat Pump Dimensions	mm	710/710/795	810/810/995	1450/705/1375		1445/850/1850	1990/980/2045		
Package Dimensions	mm	810/810/980	920/920/1080	1580/840/1450		1580/860/2000	2090/1190/2145		