



Eco Friendly Heating & Cooling for Cleaner Tomorrow



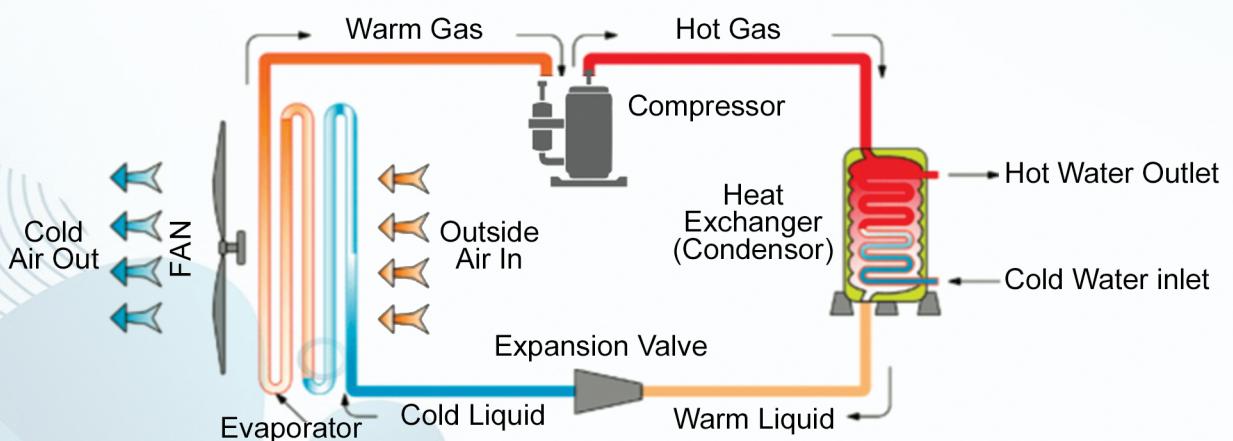
## INTRODUCTION

OBSOR has been established in the UAE market since 2021, focusing on energy optimization and energy-saving solutions. Backed by a team of engineers with over 15 years of regional experience, we have built a strong understanding of the UAE's unique climatic and operational challenges.

OBSOR offers energy-efficient hot/cold water solutions powered by advanced heat pump technology, ideal for a variety of applications including domestic hot water supply, swimming pool heating/cooling, and laundry drying systems. The system is manufactured by Sai Heating & Cooling Solutions under the brand name NEO an emerging brand with successful field installations in select regional markets, known for delivering dependable and energy-efficient heat pump technology. Engineered for residential, commercial, and industrial applications, the OBSOR's heat pump range includes Water Heaters, Swimming Pool Heaters and Heat Pump Dryers. With its compact footprint, reduced operating cost, and proven performance in demanding climates, this solution offers a smart, sustainable alternative to conventional heating systems.



## WORKING PRINCIPLE



**Working Principle :** An air source to water heat pump extracts thermal energy from ambient air and transfers it to water through a closed refrigeration cycle. The system operates using four key components: an evaporator, compressor, condenser, and expansion valve. Ambient air passes over the evaporator, causing the refrigerant to absorb heat and evaporate. Here, the refrigerant changes its state from liquid to vapor. The vapor is then compressed to a higher temperature and pressure. In the condenser, this thermal energy is transferred to the water, effectively heating it. At this stage, the refrigerant changes its state from vapor back to liquid. The refrigerant then passes through the expansion valve, reducing its pressure and temperature, and the cycle repeats. This highly efficient process enables significant energy savings compared to traditional electric or gas or other water heaters.

## FEATURES



WiFi Enabled



Reduced CO2 emission



Outdoor weather proof cabinet

Dual pressure protection



Modbus Communication



Phase failure protection



Advanced control unit



Built-in freeze protection

## PRECISION. RELIABILITY. EFFICIENCY.

### EXPERTISE & QUALITY

Leverage our team's regional experience and trust in high-performance solutions

### OPTIMIZED PERFORMANCE

Achieve precise hot and cold water control with integrated, energy-efficient systems tailored for demanding climates.

### SOLAR INTEGRATION READY

Our heat pump systems can seamlessly integrate with existing solar water heaters to maximize energy savings.

### SUSTAINABLE SAVINGS

Cut operational costs, reduce energy consumption, and contribute to environmental sustainability through low-carbon heating and cooling.

### SMART & TAILORED SOLUTIONS

Enjoy fully customized, intelligently managed systems from design to implementation—meeting your unique application needs.

### RELIABLE SUPPORT

Rely on proactive service and ongoing support from a team dedicated to your long-term success.

## TECHNICAL PARAMETERS

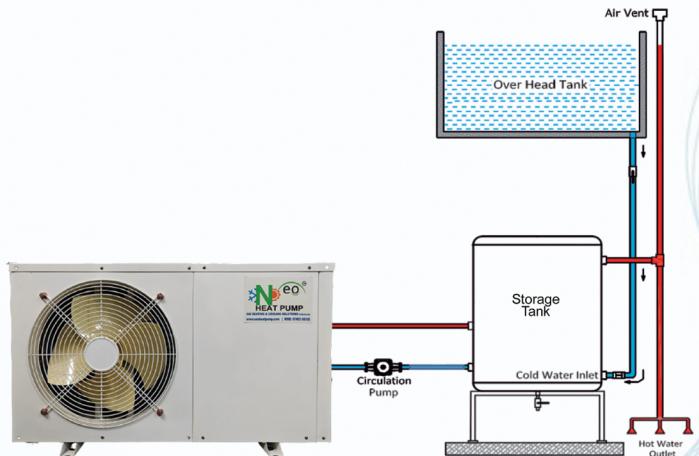
## RESIDENTIAL

Model	Neo-R4	Neo-R6	Neo-R8
<b>Heating Capacity</b>			
Rated Heating Capacity (kW)	4	6	8.8
Rated Power Input (kW)	1	1.5	2.2
COP	4	4	4
Input Current (A)	5.1	7.7	11.3
<b>Specifications</b>			
Power Supply	230V 1Ph 50Hz AC		
Evaporator	Inner groove Copper Coil with Aluminium Blue Fins		
Compressor Type	Rotary Compressor		
Heat Exchanger	Shell in coil		
Expansion Valve	Thermostatic expansion valve / Electronic expansion valve		
Fan Type	Axial Suction Fan		
Fan Direction	Vertical		
Fan Quantity	1		
Circulation Pump	230V 0.4Hp (In Built)		
Controller	In Built		
Modbus Communication	Yes (Optional)		
Wifi Communication	Yes (Optional)		
Refrigerant	R417a / R407c		
Ambient Temperature(°C)	(-)10°C to 52°C		
Maximum Temperature(°C)	Upto 60°C		
Protections	High Pressure   Low Pressure   Over Load Protections   Antifreeze   Dry Run Protection		
Enclosure	Powder Coated Galvanized Iron		
Connection Size (In & Out)(Inches)	3/4		
Color	RAL 7035		
Noise(dB)	≤56	≤56	≤57
Application	Outdoor		
Dimension (mm)	H	610	610
	W	860	860
	D	550	550
Net Weight in kg (Approx.)	68	75	98

## KEY HIGHLIGHTS

- ✓ 24x7 Hot / Cold water service round the clock
- ✓ Comfort & Convenience
- ✓ Eco friendly
- ✓ Fully automatic
- ✓ Energy Efficient

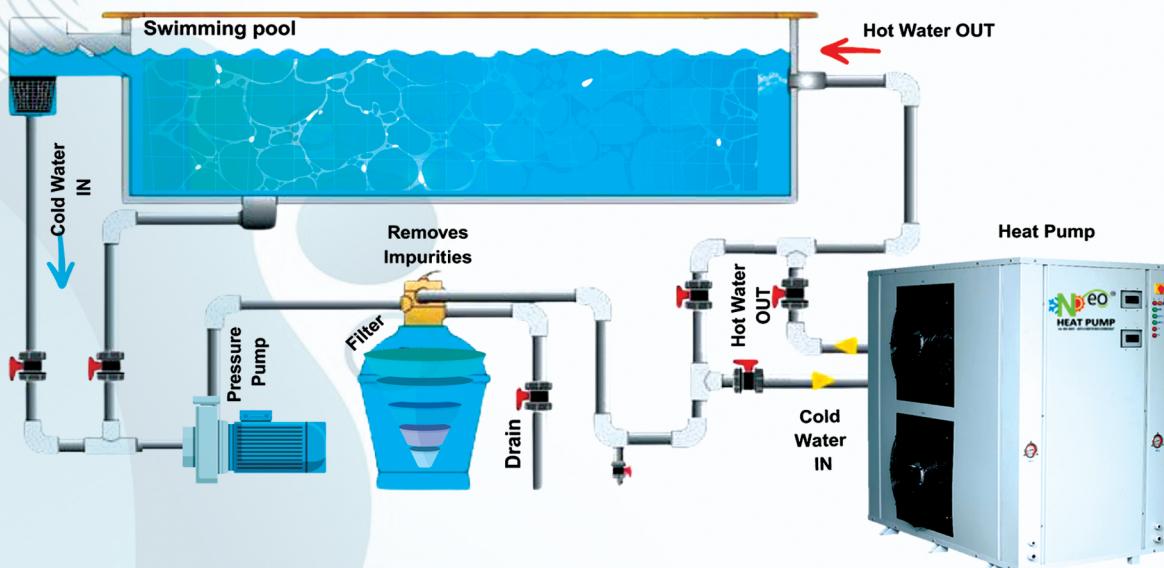
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## TECHNICAL PARAMETERS

## SWIMMING POOL

Model	Neo-P13	Neo-P19	Neo-P27	Neo-P41	Neo-P55	Neo-P82	Neo-P110	Neo-P165	Neo-P220
<b>Heating Capacity</b>									
Rated Heating Capacity (kW)	13.2	19	27.5	41.2	55	82.5	110	165	220
Rated Power Input (kW)	2.4	3.5	5	7.5	10	15	20	30	40
COP	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Input Current (A)	4.1	6	8.5	12.7	17	25.5	34	50.9	67.9
<b>Cooling Capacity</b>									
Rated Cooling Capacity (kW)	8.2	10.5	17.5	26.4	35	52.5	70	105.5	140
Rated Power Input (kW)	2.4	3.5	5	7.5	10	15	20	30	40
EER	3.4	3	3.5	3.5	3.5	3.4	3.5	3.5	3.5
Input Current (A)	4.1	6	8.5	12.7	17	25.5	34	50.9	67.9
<b>Specifications</b>									
Power Supply	400V 3PH 50Hz AC								
Evaporator	Inner groove Copper Coil with Aluminum Blue Fins								
Compressor Type	Scroll Compressor								
Heat Exchanger Type	Coil in shell Titanium Heat Exchanger								
Expansion Valve	Thermostatic Expansion Valve / Electronic expansion valve								
Fan Type	Axial Suction Fan								
Fan Quantity	1	1	1	2	2	4	4	8	12
Fan Direction	Vertical								
Controller	Yes								
Modbus Communication	Yes								
Wifi Communication	Yes (Optional)								
Refrigerant	R407c/R417a								
Ambient Temperature (°C)	(-)10°C to 52°C								
Maximum Temperature (°C)	Upto 45°C								
Protections	High & Low Pressure   High Temperature   High ΔT (Low Flow)   Antifreeze   Overload   Phase Failure   Phase Reversal   Dry Run Protection								
Enclosure	Powder Coated Galvanized Iron								
Connection Size(in&Out) (Inches)	1.5								
Color	RAL 7035								
Noise (dB)	≤54	≤56	≤58	≤58	≤60	≤65	≤71	≤75	≤75
Water Flow Volume (m <sup>3</sup> /h)	4	4.5	6	13	25	33	42	51	51
Application	Outdoor								
Dimensions(mm)	H	610	720	780	780	1460	1460	1700	1930
	W	550	630	670	720	935	935	1350	1600
	D	860	860	1020	1020	1560	1560	1950	2100
Net Weight in kg (Approx.)	110	135	145	195	265	320	360	410	470



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## TECHNICAL PARAMETERS

## COMMERCIAL

Model	Neo-C11	Neo-C15	Neo-C22	Neo-C44
<b>Heating Capacity</b>				
Rated Heating Capacity (kW)	11.5	15	22	44
Rated Power Input (kW)	2.8	3.5	5.5	11
COP	4	4	4	4
Input Current (A)	4.8	6	9.3	18.6
<b>Specifications</b>				
Power Supply	400V 3PH 50Hz AC			
Evaporator	Inner Groove Copper Coil with Aluminium Blue Fins			
Compressor Type	Scroll Compressor			
Heat Exchanger Type	Coaxial Heat Exchanger			
Expansion Valve	Thermostatic Expansion Valve / Electronic Expansion Valve			
Fan Type	Axial Suction Fan			
Fan Quantity	1	1	1	2
Fan Direction	Vertical			
Controller	Yes			
Modbus Communication	Yes			
Wifi Communication	Yes (Optional)			
Refrigerant	R417a/R407c			
Ambient Temperature	(-) 10°C to 52°C			
Maximum Temperature	Upto 60°C			
Protections	High & Low Pressure   High Temperature   High DT(Low Flow)   Antifreeze   Overload   Phase Failure   Phase Reversal   Dry Run Protection			
Enclosure	Powder Coated Galvanized Iron			
Connection Size(In & Out) (Inches)	1	1	1	1.5
Color	RAL 7035			
Noise (dB)	≤ 54	≤ 56	≤ 58	≤ 58
Dimensions (mm)	H	610	720	780
	W	550	630	670
	D	860	860	1020
Net Weight in kg (Approx.)	98	120	145	165

\*Water source commercial variants offered on demand.

-  Diesel
-  Gas
-  Solar + Electric Backup
-  Commercial electrical heater
-  70-80% energy savings lower your energy/bills

\*Image given above is for illustrative purpose only.



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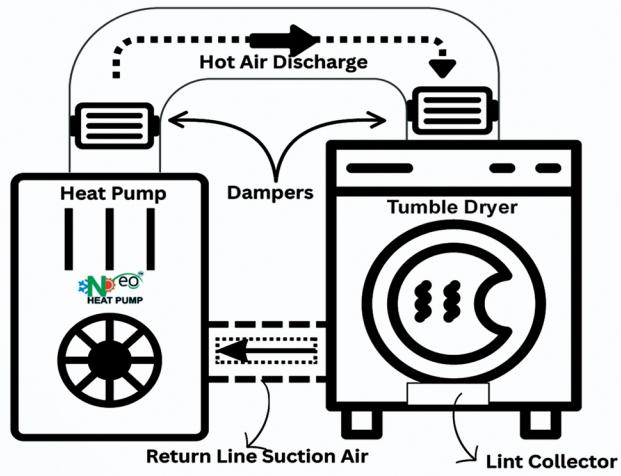
## TECHNICAL PARAMETERS

## TUMBLE DRYER

Model	Neo-T15	Neo-T20	Neo-T24	Neo-T32	Neo-T40
<b>Heating Capacity</b>					
Rated Heating Capacity(kW)	15	20	24	32	40
Rated Power Input(kW)	3.5	5	6	8	10
Load Capacity(kg)	15	30	30	50	50
COP	4	4	4	4	4
Time (min)	60	60	45	60	45
Input Current (A)	5.9	8.5	10.2	13.6	17
<b>Specifications</b>					
Power Supply	400V 3Ph 50Hz AC				
Evaporator	Inner groove Copper Coil with Aluminium Blue Fins				
Compressor Type	Scroll Type				
Heat Exchanger	Inner groove Copper Coil with Aluminium Blue Fins				
Expansion Valve	Thermostatic Expansion Valve				
Fan Type	Axial Suction Fan				
Fan Quantity	2				
Fan Direction	Vertical Hot Air, Horizontal Cold Air				
Blowing	Vertical (Ducting Type - Top Flow To Tumble Dryer)				
Hot Air Circulation Axial Fan Diameter (mm)	350	450	500	650	750
Evaporator Fan Diameter(mm)	250	350	350	500	500
Controller	Yes				
Modbus Communication	Yes				
Wifi Communication	Yes(Optional)				
Refrigerant	R134a				
Ambient Temperature (°C)	(-)10°C to 52°C				
Max. Temperature (°C)	80	80	80	80	80
Return Temperature (°C)	55	55	55	55	55
Protections	High & Low Pressure   High Temperature   High $\Delta T$ (Low Flow)   Antifreeze   Overload   Phase Failure   Phase Reversal  Filter Clean Alarm				
Starter	DOL Starter				
Enclosure	Powder Coated Galvanized Iron				
Color	RAL 7035				
Noise(dB)	≤57	≤57	≤57	≤65	≤70
Inlet Duct Diameter (mm)	350	450	500	650	750
Outlet Duct Diameter (mm)	350	450	500	650	750
Air Flow Volume (CFM)	150	170	170	230	230
Application	Indoor				
Dimensions (mm)	H	780	1180	1180	1180
	W	720	680	680	680
	D	1020	1800	1800	1800
Net Weight in kg (Approx)	145	300	300	300	300

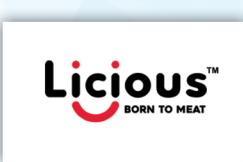
## KEY HIGHLIGHTS

- ✓ Preservation of Colors
- ✓ Reduced shrinkage
- ✓ Reduced wrinkling
- ✓ Eco Friendly
- ✓ Energy Efficient
- ✓ Lower Utility Bills
- ✓ Higher Safety
- ✓ Reduced Carbon Footprint



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## NEO - KEY PROJECTS



CONTROLS TECHNICAL SERVICES  
*Your Partner in Sustainability*

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