

SWIMMING POOL
HEAT PUMP

COMMERCIAL SWIMMING POOL HEAT PUMP

NORTHSUN pool heat pump provides the maximum energy efficiency and reliability. Working efficiently, the heat pump units absorb another 6 times of free heat from the ambient environment, and transfer it to the pool water, which makes the heating process ecological and cost saving.



FEATURES & BENEFITS

- High Efficiency Panasonic rotary compressor with R417A/R22 refrigerant.
- Water temperature drop is less than 30C in 24 hours. Sanitary hot water all year round.
- Automatic defrosting function included (with reserve cycle value inside).
- Save 75% electric energy compare to electric heater.
- Easy installation and good stability



PRODUCT PARAMETER

Model		NSC-S-2K	NSC-S-21K	NSC-S-21K	NSC-T-30K	NSC-T-25K	NSC-T-50K	NSC-T-60K	NSC-T-70K	NSC-T-100K	NSC-T-120K	NSC-T-140K
Power supply		220/1/50	380/3/50	380/3/50	220/1/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
1) Heating capacity	kW	21.0	25.0	30.0	16.0	25.0	49.5	57.9	68.5	99.7	118.6	140.6
Power input	kW	3.58	4.2	4.8	2.7	4.2	8.5	9.8	11.8	17	20.5	24.1
COP		5.87	5.95	6.25	5.93	5.95	5.82	5.91	5.81	5.86	5.79	5.83
2) Heating capacity	kW	15.0	17.5	22.5	11.8	17.5	38.3	43.5	51.3	73.8	86.2	101.3
Power input	kW	3.35	3.9	4.7	2.65	3.9	8.3	9.4	11.2	16.2	18.9	22.3
COP		4.48	4.49	4.79	2.24	1.53	0.70	0.63	0.52	0.36	0.31	0.26
Rated current	A	15.5	7.5	8.5	11.5	7.5	15.6	17.9	21.6	31.1	37.5	44.1
Fan Discharge		Horizontal (side blowing)				Vertical (Top blowing)						
Operation air temp. range	℃	-7~43										
Advised Water flow rate	m³/h	9.0	10.8	12.9	6.9	10.8	21.3					
Noise at 1m	dB(A)	≤50	≤58	≤52	≤55	≤58	≤66					
Water pipe connection diameter	mm	50	50	50	50	50	50	50	50	50	50	50
Net weight/Gross weight	kg	102/112	105/115	135/150	100/106	145/155	300/320	330/350	372/412	482/532	582/642	612/675
Net size (W*D*H)	mm	1110*490*1260	1110*490*1260	1110*490*1260	710*710*870	810*800*1030	1580*800*1600	1580*800*1600	1580*800*1600	1580*1000*1950	2000*1100*2080	2300*1100*2300
Packing size (W*D*H)	mm	1180*540*1390	1180*540*1390	1180*540*1390	810*810*1070	910*900*1230	1600*850*1230	1600*900*1800	1600*900*1800	1950*1100*2050	2100*1200*2280	2400*1200*2500
Loading quantity (20GP/40CP/40HQ)	pcs	18/42/42	18/42/42	18/42/42	90/180/180	90/180/180	90/180/180	72/144/144	20/44/44	18/42/42	18/42/42	18/42/42
Casing		Galvanized Steel/Stainless Steel										
Refrigerant		R407C/R417A										
Heat exchanger		Titanium in PVC										
Remark : heating*: working condition, Inlet water temperature 26℃, Outlet water temperature 28℃, Dry bulb temperature 26℃.Humidity 80%. heating*: working condition, Inlet water temperature 26℃, Outlet water temperature 28℃, Dry bulb temperature 15℃.Humidity 70%.												

EVI HEAT PUMP FOR COLD CLIMATE
(AMBIENT RANGE -25°C TO 43°C)

Advantages

- **EVI Technology** : Adopting the most advanced low temperature enhanced vapors injection compressor technology which can help heat pump work steadily even at temperature of -25°C.
- **Wide range of temperature** : EVI heat pump can work from -25°C to 43°C. Widely used in different environment.
- **Higher heating capacity** : Using enlarging evaporator extracting more heat energy from air, will increase COP.
- Automatic start-up anti-freezing protection : When the ambient is below 0°C, the unit is in stand-by mode more than 30 minutes, automatic anti-freezing device will be started up, so that the unit will be protecting in lower temperature.



Model		NSC-H-20K	NSC-H-40K	NSC-H-70K	NSC-H-90K	NSC-H-140K	NSC-H-130K
Power supply	V/Ph/Hz	415/3/50					
Ambient temperature	°C	-25 - 43					
Rated heating output	kW	18	37.4	69.8	87.4	140	175
Rated hot water output	L/h	400	804	1500	1880	3000	3760
Input power	kW	4.05	8.48	15.23	19.82	30.70	39.68
Rated water outlet temperature	°C	55					
Max. water outlet temperature	°C	60					
Compressor		Copeland EVI scroll					
Heat exchanger		Shell & tube					
Rated water flow rate	m³/h	3.9	6.5	15	18.8	30.1	37.6
Noise	dB(A)	≤56	≤70	≤68	≤73	≤74	≤76
Dimension (LWH)	mm	1110	1500	1990	1990	2200	2200
	mm	530	900	980	980	1120	1120
	mm	1260	1665	2045	2045	2295	2295
Net weight	kg	155	330	552	580	1100	1150
Testing conditions		Inlet water 15 °C/Outlet water 55°C (max. 60°C) Dry bulb/Wet bulb temperature 20°C/15°C					

NORTHSUN
HEAT PUMP THE PERFECT
SOLUTION FOR
HOT WATER



Northsun Solar Corporation
134, Industrial Area Phase 1, Panchkula, Haryana 134113
Phone: 0172-5054467, 82838 40131, 82838 40129, 82838 40126
Email: northsunindia@yahoo.co.in
web: northsunindia.com

www.northsunindia.com
northsunindia@yahoo.co.in



COMMERCIAL HEAT PUMP

Our impressive line of environmentally friendly offerings has now been expanded to include one of the most energy-efficient and innovative commercial products on the market.

The electric commercial heat pump water heater works great in applications where the need is for hot water. Applications requiring significant hot water usage will maximize energy savings for the shortest payback periods. Best of all, heat pump heaters are three time smore efficient than standard electric water heaters and up to four times more efficient than conventional gas water heaters.

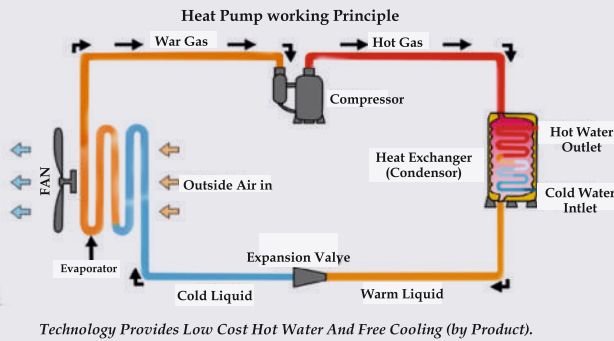
Our impressive line of environmentally friendly offerings has now been expanded to include one of the most energy-efficient and innovative commercial products on the market.

COMMON APPLICATION

- Commercial : Restaurant/Kitchens
Institutional : Hospitals, Hotels,
Schools, Hostels, Resorts
Residential : Villas, Apartments, Guest houses
Industrial : Factories, Laundries

FEATURE S OF HEAT PUMPS

- Constant hot water
- Lower Running Costs
- High Efficiency Compressor
- Intelligent controller
- Isolated safe condenser
- Environment Friendly
- Magnesium anode
- Wide application



HOW DO HEAT PUMP WATER HEATERS WORK?

Heat pump water heaters capture heat and humidity from the surrounding atmosphere through the cooling coil and utilize it for heating potable water. Simply put, they move heat from where it is not needed to where it is wanted. This innovative advanced

WHY ARE HEAT PUMP WATER HEATERS AN ENVIRONMENTALLY FRIENDLY CHOICE?

- High efficiency with coefficient of performance (COP) up to 4
- No fossil fuels are used or burned at the source
- Ozone layer-friendly refrigerant R410a
- Uses less electricity than standard electric water heaters
- Contributes to space cooling at the same time
- Taps into heat sources typically discarded by other units for peak efficiency

DOMESTICS HEAT PUMP

This series adopts SS316 coil heat exchanger inside the pressurized water tank, supply hot water for homes and residence.



Product model	NSC/RD3.5/200L	NSC/D5/300L	NSC/D6.5/500L
Heating capacity (kW)	3.5	5	6.5
Input power (kW)	0.86	1.26	1.66
COP	4.07	3.97	3.92
Rated outlet water temp (°C)	55	55	55
Production capacity (L/H)	75	107	140
Working Area		-7~43°C	
Noisa dB(A)	≤49	≤49	≤52
Unit Body size (W*D*H)	760 x 552 x 256 mm	760 x 552 x 256 mm	820 x 605 x 300 mm
Combine Water tank Capacity (L)	200	300	500
Water tank Body size (mm)	φ470*1440/φ555*1255	φ555*1255/φ555*1800	φ555*1800/φ700*1840
Diameter of Pipe (mm)	DN15/DN15	DN15/DN20	DN20/DN20
Refrigerant		R417A	
Power Supply	220V/50Hz/1P	220V/50Hz/1P	220V/50Hz/1P
Package		Plywood package	

Test condition, Inlet water temperature 15°C, Outlet water temperature 55°C. Dry bulb temperature 20°C. Wet bulb temperature 15°C

FEATURES & BENEFITS

- High Efficiency Panasonic rotary compressor with R417A/R22 refrigerant.
- Water temperature drop is less than 30C in 24 hours. Sanitary hot water all year round.
- Automatic defrosting function included (with reserve cycle value inside).
- Save 75% electric energy compare to electric heater.
- Easy installation and good stability



COMMERCIAL FROM NORTHSUN



COMMERCIAL SERIES

Commercial hot Water heat Pumps adopt environmental - friendly refrigerant R410A. They are widely suitable for sanitary hot water in residential or commercial places. It can supply 550C (Max 600C) hot water stable 24 hours a day and works well in area above -70C



Operating Temps
-70C - 430C



R410A
Refrigerant



Max Outlet
water 600C



LCD
Display

COMMERCIAL HEAT PUMP

Model	NSC/PW-030 +18K	NSC/PW-50 +18K	NSC/PW-100 +38K	NSC/PW-150 +54K	NSC/PW-200 +78K	NSC/PW-250 +96K	NSC/PW-300 +108K	NSC/PW-500 172K
Compressor brand	Gree			Copeland				
Four-way valve brand	Sanhua							
Expansion valve brand	Sanhua							
Heating capacity (kW)	10.8	19	39	54	78	96	108	172
Input power (kW)	2.8	4.5	9.4	12.8	18.2	22.6	25.5	40.5
COP	3.86	4.22	4.15	4.22	4.29	4.25	4.25	4.25
Rated current (A)	12.7	8.5	17.6	24	34.1	42.4	45	72.4
Max input power (kW)	4.2	6.8	14	18.3	24	33.5	36.5	59
Max current (A)	19	12.3	25	32.7	42	51	65.2	105.5
Rated outlet water temperature (°C)	55	55	55	55	55	55	55	55
Highest outlet water temperature (°C)	60	60	60	60	60	60	60	60
Power supply	220V/50Hz			380V/3N-/50Hz				
Anti-electric shock rate								
IP Grade (Level of protection)	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Refrigerant	R401A							
Operation Ambient temp (°C)	-7~43°C							
Production capacity (L/H)	232	408	838	1161	1677	2064	2322	3698
Diameter of pipe (mm)	G3/4"	G1"	G1-1/2"	G1-1/2"	G2"	Dn65	Dn65	Dn65
Water circulation (m³/H)	1.86	3.27	6.71	9.29	13.42	16.51	18.58	29.58
Water pressure drop (kPa)	70	70	75	85	90	80	70	70
Noise (dB(A))	55	56	60	63	65	66	68	78
Net weight/Gross weight (kg)	75	135	300	256	372	470	485	1300
Body size (W*D*H)	810 × 695 × 865	740 × 805 × 1165	1500 × 750 × 1075	1530 × 790 × 1100	1705 × 1005 × 1230	205 × 1050 × 1400	2400 × 1200 × 2670	
Loading quantity (20GP/40GP/40HQ)	18/78/78	14/28/56	6/14/28	6/14/28	6/12/12		5/10/10	/
Condenser type	High efficiency tank heat exchanger					Casing heat exchanger		
Operating water temperature (°C)	9 ~ 60°C							
Test condition: Inlet water temperature 150C, Outlet water temperature 550C, Dry bulb temperature 20°C, Wet bulb temperature 15°C								

Test condition: Inlet water temperature 150C, Outlet water temperature 550C, Dry bulb temperature 20°C, Wet bulb temperature 15°C

