



Product Guide 2024



PROCESS COOLING
SOLUTIONS



AIR CONDITIONING
SYSTEMS

Experience the
Best in **Heating & Cooling** Solutions

PSTHVAC.COM

WELCOME

Pars Sanat Tahviah co.

Welcome to PST HVAC Solutions

At PST, we take pride in providing the best HVAC solutions for industrial, commercial, and residential environments. With years of experience and the use of cutting-edge technology, our products are designed to deliver the best performance, efficiency, and comfort for you.

Our Products:

Residential and Commercial Chillers:

- ▶ High efficiency and optimized energy consumption
- ▶ Robust design and long lifespan
- ▶ Silent and reliable operation

Process Cooling System :

- Ideal for large and commercial buildings
- Smart systems with temperature and humidity control
- Easy installation and maintenance.

Fan Coil Units and Air Handlers:

- Suitable for residential and office environments
- Elegant and quiet design
- Precise temperature control capabilities

Our Mission:

At PST, our mission is to provide the best HVAC solutions to create comfortable, healthy, and efficient environments for all our customers. By focusing on innovation, quality, and customer satisfaction, we strive to be your top choice always.

Why Choose PST?

● **Expertise and Experience:** With over 20 years in the HVAC industry, we lead the way in offering innovative and efficient solutions for our customers.

● **Superior Quality:** Our products are manufactured using the best materials and the latest technologies to ensure the highest level of quality and durability.

● **Excellent Support:** Our support team is ready to provide consultation, installation, and maintenance services, ensuring we are always by your side.

COMMERCIAL AND INDUSTRIAL CHILLERS

Pars Sanat Tahviah co.

Our chillers are designed to meet the diverse cooling needs of industrial, commercial, and residential environments. Explore our range of chillers and discover how they can benefit your operations.



Industrial Chillers

High-Capacity Industrial Chillers:

Our industrial chillers are engineered for heavy-duty applications, providing robust performance and reliability. They are ideal for manufacturing plants, refineries, and other industrial processes where consistent and efficient cooling is critical.

Compact Industrial Chillers:

These chillers offer powerful cooling in a compact design, making them perfect for environments with limited space. They are suited for data centers, industrial cooling processes, and large commercial buildings, ensuring quiet and efficient operation.



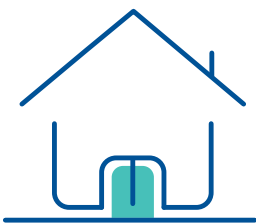
Commercial Chillers

Energy-Efficient Commercial Chillers:

Our commercial chillers are designed to deliver high efficiency, reducing operational costs while maintaining optimal performance. They are perfect for shopping malls, hospitals, and office buildings, providing reliable and precise temperature control.

Versatile Commercial Chillers:

These chillers offer flexible installation options and are easy to maintain, making them an excellent choice for hotels, schools, and commercial complexes. They combine quiet operation with smart energy management features to ensure comfort and efficiency.



Residential Chillers

Compact Residential Chillers:

Designed for residential use, these chillers provide efficient and quiet cooling for large homes, small apartment buildings, and villas. They offer a compact design that is easy to install and maintain, ensuring a comfortable living environment.

Ultra-Quiet Residential Chillers:

Ideal for small homes, individual apartments, and duplexes, these chillers are known for their ultra-quiet operation and energy efficiency. They are perfect for residential settings where noise and energy consumption are important considerations.



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AIR CONDITIONING
SYSTEMS

NEPTUNE TECH

- Water-cooled water chillers and condenserless units featuring hermetic scroll compressors.
- Cooling capacity 189-570 kW



PARS SANAT TAHVIEH

Benefits



- Up to 6 compressors offer high efficiency and reliability
- High energy efficiency levels, especially at partial loads
- Extremely compact, even passes through a domestic door
- Operates with water outlet temperatures from 0°C to 25°C
- Unloading function allowing operation even in extreme conditions
- Self Adapting Control (SAC) with dynamic set point, for increased precision with low thermal inertias
- Robust design with high quality components from renowned suppliers, fruit of PST's industrial background:
- Reduced noise levels, thanks also to the availability of two differing acoustic versions
- Flexibility of use, sized for operation with either tower or well
- Energy efficient total heat recovery and desuperheater options
- Easy installation and access to all components
- Allows both inlet and outlet water control, with a PID control
- Generous ambient limits (-10°C to +45°C)
- Easy to use intuitive controller with dual icon display

Main options

- Noise reducing compressor housing
- Modulating condensing pressure control valves
- Antivibration dampers
- Soft starter
- Desuperheater (20% heat recovery)
- Total heat recovery (100% heat recovery only chiller)
- Antifreeze heater for exchangers;
- Remote user interface;
- RS485 MODBUS interface for connection to supervisor systems
- WEB300D remote supervision, allowing local or remote monitoring via web server or GPRS
- Matching cooling towers or dry coolers available on request
- Remote condensers for integration with ME units available on request

Standard Features

- 2 to 6 hermetic scroll compressors, positioned in parallel in one or two circuits
- Shell & tube evaporator and condenser
- Shut-off valve and solenoid valve on the liquid line
- Extensive inspections and tests performed on all units
- Factory charged with non-freezing oil and refrigerant
- IP54 electrical protection rating
- Environmentally friendly refrigerant R410A with zero ozone depletion potential
- All the scroll compressors are equipped with crankcase heaters as standard
- All the units are delivered with a phase monitor which provides protection against phase loss and phase reversal

Versions:

- **NET** - Cooling only
- **NET Silent** - Low noise
- **NET / ME** - Condenserless unit combinable with remote condenser

Water-cooled chillers stand out in the HVAC industry as a technologically advanced solution for maintaining optimal temperature control in commercial, industrial, and residential settings. These chillers operate by leveraging water's inherent thermal conductivity properties to efficiently transfer heat away from the environment. The system typically comprises a compressor, evaporator, condenser, and expansion devices which work in harmony to achieve efficient heat exchange. Water-cooled chillers are particularly favored for applications requiring high cooling capacities. One of the technical advantages of water-cooled chillers is their ability to maintain a consistently low condenser water temperature, which directly translates to enhanced energy efficiency. This is made possible by their closed-circuit design, which minimizes water consumption while maximizing heat transfer efficiency. Furthermore, these chillers are often equipped with advanced control systems that enable precise temperature adjustments, real-time monitoring, and diagnostics to ensure optimal performance and minimal energy wastage.

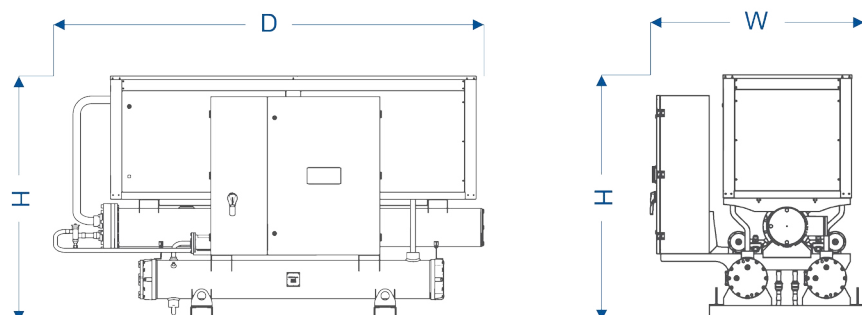
Model NET

		060	070	080	090	100	110	120	130	140	150	160	170	180	
Cooling capacity	kW	189	215	239	264	290	338	382	404	429	449.5	478	519.5	570	
Cooling capacity	TR	53.7	61.1	68	75	82.5	96.1	108.6	115	122	127.8	135.9	147.7	162	
Total absorbed power	kW	41	46.3	52.6	56.6	63.6	72.6	82	87.3	92.6	98.7	105.2	114	123	
EER	-	4.61	4.64	4.54	4.66	4.56	4.66	4.66	4.63	4.63	4.55	4.54	4.55	4.63	
EXCHANGERS															
Evaporator pressure drops	kPa	37	36	38	44	53	27	45	50	52	28	26	32	48	
Water flow	m ³ /h	32.44	36.9	41.02	45.32	49.78	58.02	65.57	69.35	73.64	77.16	82.05	89.17	97.84	
GENERAL DATA															
Refrigerant	-	R410A													
Circuits / Compressors	N°	1 / 2					2 / 4					2 / 5		2 / 6	
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50													
Protection class	-	IP54													
NOISE LEVEL															
Noise pressure	dB(A)	57	57	58	58.5	58.5	59.5	60	60	60	60.5	61	61.5	62	
Noise power	dB(A)	51	51	52	52.5	52.5	53.5	54	54	54	54.5	55	55.5	56	
SIZE AND WEIGHT															
Depth	mm	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	3400	3400	3700	
Width	mm	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	
Height	mm	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	
Weight	kg	936	968	1000	1192	1192	1470	1657	1669	1806	1818	1880	2023	2266	

(1) Evaporator IN/OUT: 12/7°C; condenser IN/OUT: 35/30°C;

(2) Sound pressure at 10 m: average value obtained in free field on a reflective surface at a distance of 10 m from the side of the condenser coils and at a height of 1.6 m from the unit support base. Valuas with tolerance \$ 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump.

The listed noise levels, weights and dimensions refer to base chillers with no options fitted. (NB:dimensions for lower noise and/ or higher efficiency versions may differ.)



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