



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.



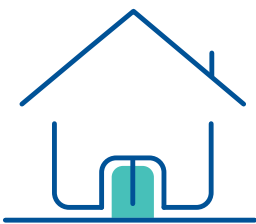
Commercial Chillers

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

CYGNUS TECH

- Air cooled water chillers, heat pumps and condensing units featuring hermetic scroll compressors.

- Cooling capacity 14 - 78 kW
- heating capacity 15 - 80 kW



Benefits



- Extremely low noise levels
- High EER/COP values and seasonal performance indices
- Ideally suited to commercial and domestic chilled water air-conditioning applications
- Extended operating limits
- Optimisation of heat pump defrosting cycles thanks to the exclusive Frost Detecting System (FDS) (Minimum ambient temperature in heat pump mode a -10 °C)
- Self-adaptive temperature control (SAC) for efficient operation with installations having low water contents
- Designed for installation in confined spaces:
- Easy to use thanks to a controller with icon-based dual display
- Easy installation and simple access to all chiller components.

Main options

- Configuration without storage tank
- High/low head pressure pump
- Anti-freeze heaters on evaporator, pump and tank
- Remote user interface
- R5485 ModBus interface for connection to supervisor systems
- XWEB300D for local or remote (GPRS) monitoring
- plus data filing based on Web server technology
- Antivibration mountings
- Condenser filters
- Soft starter
- Thermostat (condensing and reversible condensing unit)

Standard Features

- Scroll compressors (051-131) tandem Scroll compressors (181-301)
- Integral hydronic kit complete with pump, tank, expansion vessel, filling/drain valve, pressure gauge, and automatic bleed valve
- Hydraulic threaded connections directly accessible from the exterior of the unit
- Brazed stainless steel plate evaporator
- Axial fans with sickle shaped blades and electronic speed control
- Heat pumps with 2nd thermostatic valve for performance optimisation in all operating conditions (models 131 to 3011)
- Factory charged with refrigerant and non-freezing oil (MC versions excluded)
- Protection grade IPX4
- Inspections and tests performed in factory as per all PST products and components
- Environmentally friendly refrigerant R410A with zero ozone depletion potential
- Phase monitor against phase reversal
- Compressor crankcase heater

Versions:

- **CY** - Cooling only
- **HCY** - Reversible heat pump
- **MCCY** - Condensing unit
- **MCHCY** - Reversible condensing unit

Low noise operation of technical systems is essential for continuously occupied premises such as homes, offices and light-commercial buildings, where air conditioning units are usually placed in close proximity to the users. In order to satisfy the specific comfort requirements of these type of premises, without compromising performance in all operating conditions, PST has developed the Cygnus Tech series of minichillers and reversible heat pumps with environmentally friendly refrigerant R410A. The already very low noise levels have been further reduced by installing electronic fan speed controls, which run at lower speeds as cooling or heating demands decrease. Seasonal efficiency levels are even more evident in heat pump operation, with clear benefits in terms of climatic comfort, thanks to the integral storage tank and Frost Deteting System (FDS), designed to detect the quantity of ice accumulating on the external coil, so that defrost cycles are performed only when appropriate, thereby minimising the power consumption.

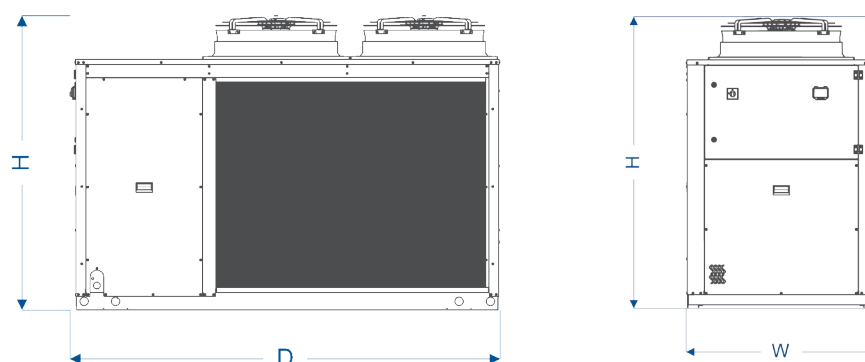
Model CY

		051	071	091	101	121	181	201	241	271	301
Cooling capacity	kW	14.05	18.8	23.3	27.5	30	46.4	52.8	60	69.8	78
Cooling capacity	TR	4	5.3	6.6	7.8	8.5	13.2	15	17.06	19.85	22.2
Total absorbed power	kW	4.3	5.6	7	8	9.1	14.1	16.9	18.2	21.9	25.9
EER	-	3.27	3.35	3.26	3.37	3.28	3.28	3.13	3.30	3.19	3.01
Max external air temperature	°C	52	51	49	49	48	50	49	50	49	47
EXCHANGERS											
Evaporator pressure drops	kPa	8	33	35	36	35	35	36	37	41	43
Water flow	m ³ /h	2.41	3.23	4	4.72	5.14	7.97	9.07	10.31	11.99	13.4
GENERAL DATA											
Refrigerant	-	R410A									
Circuits / Compressors	N°	1 / 1					1 / 2				
Refrigerant	V/Ph/Hz	400±10% / 3+N-PE / 50									
Circuits / Compressors	-	IP54									
NOISE LEVEL											
Noise pressure	dB(A)	43	43	43.5	43.5	44	46	46	48.5	49	49
SIZE AND WEIGHT											
Depth	mm	1605	1605	1950	1950	1950	2505	2505	2505	2505	2505
Width	mm	742	742	800	800	800	1108	1108	1108	1108	1108
Height	mm	1425	1425	1238	1238	1238	1710	1710	1710	1710	1710
Weight (without tank and pump)	kg	182	184	344	361	374	607	613	638	654	660
Weight (with tank and pump)	kg	313	315	556	574	587	824	830	854	871	877

(1) External ambient temperature: 35°C; evaporator IN/OUT: 7/12°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. Values 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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