

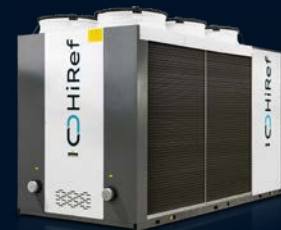
TPS

AIR CONDENSED CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS

43.2–444.7 kW



 MULTI-PROTOCOL COMMUNICATION INTERFACE	 SCROLL COMPRESSORS	 AXIAL FANS	 CORROSION RESISTANT MATERIAL
 A2L READY	 LOW GWP REFRIGERANT	 PLATE HEAT EXCHANGER	



TPS is the range of air-condensed liquid chillers and heat pumps with Scroll compressors. Three different versions (chiller, Free-Cooling chiller and reversible heat pump) and the several available power output rates make these units **highly versatile and suited to a wide range of system set-ups**. The sizing and selection of individual components have focused **on containing energy consumption, aiming to optimise energy savings not just for individual chillers but for the entire system**. The unit is available with **three soundproofing set-ups**.

The configurations available for the refrigeration circuit are:

EFFICIENCY PACK 1: Dual compressor dual circuit unit for higher redundancy systems.

EFFICIENCY PACK 2: Dual compressor (tandem) on single circuit for greater efficiency at partial loads.

EFFICIENCY PACK 4: Four compressors (dual tandem) on dual circuit, for a redundant system that is efficient with low loads.

- 3 different soundproofing setups available: Standard, Low Noise and Super Low Noise
- Electric control panel with IP55 protection rating
- Radial EC motor fans (optional)
- Electronic expansion valve
- Easy accessibility thanks to the optimisation of the internal space
- Programmable microprocessor control with proprietary software
- Available with variable flow pumping kit
- Maintenance kit available
- Compliance with ERP regulations





Acoustic comfort

Three different soundproofing set-ups are available: the most suitable one will depend on the importance of noise containment in the overall plant layout. Adopted technical solutions include fan speed control, the use of anti-vibration devices on the refrigerating circuit, compartmentalisation of compressors and pumping kits in a box internally lined with soundproofing material.



All accessories on-board the machine

The special component layout, together with compact plate heat exchangers and Scroll compressors, allows users on the one hand to make **the most of large sized condensing sections** and on the other hand, to have sufficient Free-Cooling internal space available for fitting **a wide range of accessories and hydraulic options**. The hydraulic circuit may include a dual shut-off pump, flow switch, tank, expansion tank and safety valve.



Maximum efficiency at partial loads

The adoption of the multi-Scroll solution, the use of electronically controlled expansion valves, selection of plate heat exchangers, fan modulation and variable flow rate controlled with circulation pumps are all key features that make **the TPS range particularly efficient at partial loads**.

TPS		042	052	062	072	082	092	102	122	124	142	144	162	164	
Cold user In water temperature 12°C, ethylene glycol 20%															
Full Free-Cooling temperature	°C	-2.1	-3.2	-2.2	-3.4	-4.4	-2.9	-2.3	-	-4	-	-3.5	-	-6.7	
Weight	kg	671	675	900	910	980	1105	1115	-	1475	-	1490	-	1640	
Cooling: User water values 12/7°C, 35°C outside air, 40% U.R.															
Cooling capacity	kW	43.2	54.4	63.1	70.9	78.5	94.4	105.6	122.4	125.3	133.7	141.4	160.5	156.2	
Total absorbed power	kW	13.1	18.3	20.7	24.3	28.1	32.6	38.5	40.8	42.1	43.9	48.3	59.2	55.9	
EER		3.31	2.98	3.05	2.91	2.79	2.9	2.74	3	2.98	3.04	2.93	2.71	2.79	
SEER		4.98	4.9	4.63	4.58	4.52	4.35	4.39	4.54	4.53	4.71	4.61	4.34	4.54	
SEPR		5.69	5.72	5.3	5.38	5.38	5.31	5.22	5.35	5.32	5.41	5.38	5.13	5.38	
Weight	kg	525	525	540	570	650	730	730	1010	1050	1055	1070	1085	1220	
Heating: User water values 40/45°C, 7°C outside air, 89% U.R.															
Thermal power	kW	50.7	57.1	64.2	72.6	80.8	96	108.7	124	126.9	142.4	151.8	175.8	169.6	
Total absorbed power	kW	16.8	19.1	22.3	25.1	28.3	33.8	38.6	42.8	44	46.9	51.2	58.7	56.8	
COP		3.02	2.99	2.87	2.89	2.86	2.85	2.82	2.9	2.89	3.03	2.97	3	2.99	
SCOP		3.99	3.99	3.66	3.73	3.71	3.58	3.66	3.68	3.54	3.69	3.58	3.68	3.68	
Weight	kg	545	545	585	585	675	755	760	1050	1090	1100	1120	1155	1270	
Sound power	dB(A)	73	74	75	75	79	82	83	-	82	86	83	87	85	
Dimensions [LxHxD]	mm	2090x1740x1180					2640x1740x1180			3340x1740x1180	3540x1740x1180	3340x1740x1180	3540x1740x1180	3340x1740x1180	3540x1740x1180
TPS															
Cold user In water temperature 12°C, ethylene glycol 20%															
Full Free-Cooling temperature	°C	-	-5	-5.5	-6.8	-7	-8	-8.2	-7	-7.1	-7.7	-8.3	-11	-10.5	
Weight	kg	-	1720	1750	1740	1760	1870	1870	2285	2285	2317	2352	2402	3580	
Cooling: User water values 12/7°C, 35°C outside air, 40% U.R.															
Cooling capacity	kW	166.2	189.1	188.4	207.6	211.2	230.1	232	267.2	266	293.2	317.5	352	397.6	
Total absorbed power	kW	54.2	65.4	65.4	73.9	77.5	82.8	85.2	90.3	89.5	104.9	120.5	136.9	153.8	
EER		3.06	2.89	2.88	2.81	2.72	2.78	2.72	2.96	2.97	2.79	2.63	2.57	2.59	
SEER		4.62	4.31	4.28	4.37	4.32	4.27	4.31	4.61	4.6	4.25	4.23	4.15	4.28	
SEPR		5.43	5.18	5.32	5.13	5.19	5.32	5.4	5.42	5.51	5.29	5.1	5.21	5.22	
Weight	kg	1440	1430	1460	1430	1470	1620	1620	1943	1943	1975	2010	2060	3090	
Heating: User water values 40/45°C, 7°C outside air, 89% U.R.															
Thermal power	kW	172.8	199.6	199.3	220.4	226.2	243.7	247.4	275.7	278	311	342.1	395.8	444.7	
Total absorbed power	kW	59	68.9	69.5	75.4	79.1	82.8	85.5	91.4	93	105.7	118.5	132.7	147.5	
COP		2.93	2.9	2.87	2.92	2.86	2.94	2.89	3.02	2.99	2.94	2.89	2.98	3.01	
SCOP		3.32	3.49	3.41	3.55	3.49	3.66	3.62	3.66	3.54	3.5	3.54	3.62	3.56	
Weight	kg	1495	1485	1515	1485	1530	1690	1690	2015	2015	2050	2101	2191	3190	
Sound power	dB(A)	86	92	87	92	89	94	89	89	94	93	95	94	97	
Dimensions [LxHxD]	mm	3540x1847x1653					3540x2247x1653			4200x2330x1653			4296x2330x1653	5350x2330x1653	

Also available with 60 Hz power supply | Calculated with 20% glycol. The Free-Cooling versions always feature a refrigeration configuration consisting of one compressor per circuit or dual tandem on two circuits | Features referred to the standard set-up. If not available, they refer to the Low Noise or Quiet set-up | Data declared with use of R410A refrigerant