

# TAS

## AIR CONDENSED CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS

60.3–260.5 kW



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



TAS 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 suitable for being installed in environments where **noise abatement is fundamentally important**; three different soundproofing set-ups are available.

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
- Radial EC motor fans (optional)
- Electrically controlled 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





## Plate heat exchangers

The TAS range uses brazewelded plate exchangers with asymmetrical channels, suitable for the use of high and medium pressure refrigerant gases. The configuration with asymmetrical channels allows **high exchange efficiencies** to be reached while maintaining pressure drops low on the water side - **reducing pumping costs** at both full and partial load.



## Acoustic comfort

**Three different soundproofing setups 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 **TAS range particularly efficient at partial loads**.

TAS		061FS	071FS	081FS	101FS	114FS	124FS	144FS	164FS	194FS	214FS	244FS
<b>User water temperature 12/7°C 20% ethylene glycol, outside air 35°C, 40% R.H.</b>												
Cooling capacity	kW	60.4	74.3	87.1	100.8	116.4	124.5	146.8	159.3	184.6	218.6	246.1
Total absorbed power	kW	17	21.5	25.9	30	34.1	36.6	44.3	48.3	56.7	72.1	81.3
EER		3.55	3.45	3.36	3.36	3.42	3.4	3.31	3.3	3.26	3.03	3.03
Full Free-Cooling temperature	°C	-1.5	-3.2	-5.3	-4.9	-6.5	-4.8	-6.5	-8.1	-5.8	-8.2	-6.5
Sound power	dB(A)	81	83	83	86	83	84	86	86	87	88	89
Sound power [Low noise]	dB(A)	78	80	80	83	80	81	83	83	84	85	86
Dimensions [LxHxD]	mm	2792x1735x1183			3540x1735x1183		3540x1846x1653			3540x2330x1653		4206 x2330 x1653

TAS		062CS	072CS	082CS	102CS	114CS	124CS	144CS	164CS	194CS	214CS	244CS
<b>Cooling: User water values 12/7°C, 35°C outside air, 40% U.R.</b>												
Cooling capacity	kW	61.5	75.5	88.5	102.8	118.2	127	149.6	162.5	187.7	222.6	250.4
Total absorbed power	kW	16.9	21.4	25.6	29.6	33.8	35.9	43.3	47.2	55.9	71	80
EER		3.63	3.53	3.45	3.47	3.5	3.54	3.46	3.44	3.36	3.14	3.13
SEER		4.68	4.82	4.94	4.71	4.87	4.76	4.79	4.91	4.9	4.81	4.76
SEPR		5.33	5.49	5.73	5.45	5.59	5.61	5.65	5.76	5.77	5.61	5.69
Sound power	dB(A)	81	83	83	86	83	84	86	86	87	88	89
Sound power [Low noise]	dB(A)	78	80	80	83	80	81	83	83	84	85	86
Dimensions [LxHxD]	mm	2792x1735x1183			3540x1735x1183		3540x1846x1653			3540x2330x1653		4206 x2330 x1653

TAS		062HS	072HS	082HS	102HS	114HS	124HS	144HS	164HS	194HS	214HS	244HS
<b>Heating: User water values 40/45°C, 7°C outside air, 89% U.R.</b>												
Thermal power	kW	60.3	74.2	85.5	100.7	121.3	127.6	147	159.6	183.2	223.4	260.5
Total absorbed power	kW	18.8	22.7	26.6	31.3	36.4	39.6	45.2	49.8	57.2	69.8	81.5
COP		3.21	3.27	3.21	3.22	3.33	3.23	3.25	3.21	3.2	3.2	3.2
SCOP		3.45	3.83	3.81	3.74	3.7	3.59	3.61	3.67	3.77	3.9	3.93
Sound power	dB(A)	81	83	83	86	83	84	86	86	87	88	89
Sound power [Low noise]	dB(A)	78	80	80	83	80	81	83	83	84	85	86
Dimensions [LxHxD]	mm	2792x1735x1183			3340 x1735 x1183	3540 x1735 x1183	3540x1846x1653			3540x2330x1653		4206 x2330 x1653

Also available with 60 Hz power supply | Features referred to the standards set-up. If not available, these features are referred to the Low Noise or Super Low Noise set-ups | Data declared with use of R410A refrigerant