

Add-on Freecooling modules for Aries tech, Galaxy tech and Phoenix plus, transforming the Chiller into an all-in-one modular and expandable Freecooling Chiller. Cooling capacity 242 - 466 kW per single module.



## Plug & Play

Connect AquaFree to the chiller (AST, GLT and PNP) and set the software parameters communications between the units. The chiller's xDRIVE microprocessor will control the chiller / free-cooler combination as a single unit. In case of AQUAfree connection to a chiller previously installed check before the software compability. The AQUAfree / chiller piping kit is available on request.

## Energy Efficient

AquaFree can easily obtain savings of 30% or more, offering efficiency levels well beyond the industry norm. The modular design permits additional AquaFree modules to be added, allowing efficiencies to be further increased and tailored to individual applications.

## Super Silent

Choose between 2 noise levels, both extremely quiet, with an electronic fan speed control option to further reduce part load noise levels. Especially during night time, when temperatures drop and freecooling becomes more active, AquaFree's low noise becomes a notable asset.

## Independent

Each module features its own electrical connection and 3-way valve, as well as its own electrical panel and microprocessor with independent alarms and water in/out and ambient temperature visualization: consequently each module can operate completely autonomously.

## Glycol Free Kit

The glycol free kit is available on request and is ideal in applications requiring an absence of glycol, such as food industries. The glycol free kit, which features its own intermediate exchanger and hydraulic circuit, is simply installed between the chiller and the AquaFree modules.

## Peace Of Mind

Each AquaFree module features its own microprocessor, allowing it to operate independently. If one module suffers a fault the others can still operate, if the chiller suffers a fault the modules can continue to operate. AquaFree can operate at ambient temperatures of -15 °C to +46 °C. Each AquaFree module features independent aeraulic sections featuring axial fans with progressive activation (continuos control on request).

## Versatile

As AquaFree modules are independent, so system transportation is simplified. AquaFree can be positioned separately if space needs dictate it. It is also possible to install AquaFree, or add additional modules, at a later date. Each AquaFree module features its own remote on/off control.

## Models & Versions

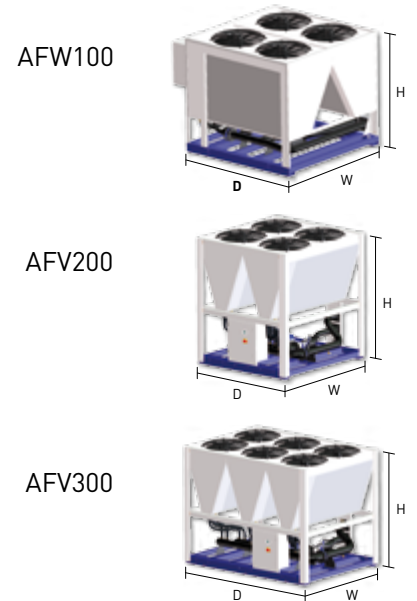
- Acoustic versions:
  - **N** - basic acoustic configuration;
  - **SN** - low noise acoustic configuration;
- Modules:
  - AFW100 (for connection to AST 090-140);
  - AFV200 (for connection to GLT/PNP);
  - AFV300 (for connection to GLT/PNP);
- **Low ambient air temperature** - down to -20 °C.

## Accessories

- Freecooling coils with anticorrosion treatment;
- Lateral hydraulic connections (AFW100);
- Metal mesh filters for freecooling coils;
- Electronic fan speed control;
- Antivibration dampers;
- On request Chiller-AquaFree interconnection kit (tubing to be supplied by installer);
- On request (special) add-on Glycol-free kit;
- Replicated remote user terminal;
- Victaulic connections.



Technical data		AFW100	AFV200	AFV300
<b>Applicable chiller</b>		<b>AST 090-140</b>	<b>GLT &amp; PNP</b>	<b>GLT &amp; PNP</b>
Cooling capacity (N)	kW	310	310	466
Cooling capacity (SN)	kW	242	242	363
Absorbed power (N)	kW	8	8	12
Absorbed power (SN)	kW	7,8	7,8	11,7
Water flow (N)	m³/h	58,3	58,3	87,4
Water flow (SN)	m³/h	45,4	45,4	68,1
Pressure drop (N)	kPa	77	77	86
Pressure drop (SN)	kPa	47	47	52
No. of Coils / Fans	-	4	4	6
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50		
Sound pressure level (N)	dB(A)	61,0	61,0	62,8
Sound pressure level (SN)	dB(A)	54,0	54,0	55,8
Depth (D)	mm	2.100	2.100	3.100
Width (W)	mm	2.188	2.190	2.190
Height (H)	mm	1.989	2.360	2.360
Installed weight	kg	1.071	1.260	1.835



Water inlet-outlet 15-10 °C, external air temperature 0 °C, 30% ethylene glycol.  
 Sound pressure level in hemispherical field at 10m from coil side, 1.6 m from ground, full load operation at nominal conditions, tolerance ± 2 dB.

**AFV200 & AFV300 can be mounted directly to the back of the chiller, AFW100 requires a small service area between itself and the chiller.**

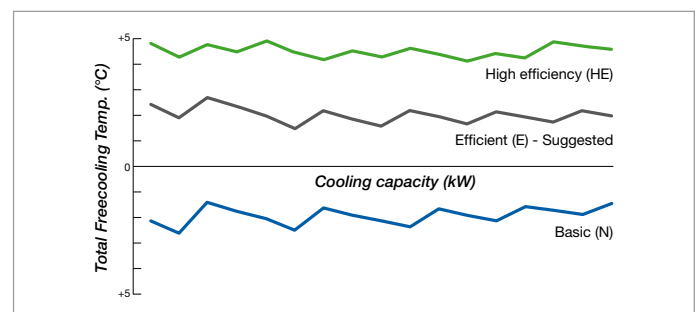
### Tailor made Free-Cooling

AquaFree allows the user to define the desired efficiency, simply combining multiple modules to achieve the optimum freecooling level. Any combination of AFV200 and AFV300 modules allows the freecooling section to be increased one "V" coil at a time from a minimum of two coils upwards.

As an example, a GLT150N chiller, operating at water 15/10 °C with 30% glycol and a single AFV300 module (Basic "N" configuration), achieves a TFT (total freecooling temperature), the temperature at which the unit achieves 100% freecooling (of -0,2 °C). Alternatively, the application of two AFV200 modules (Efficient "E" configuration) achieves a TFT of +3,1 °C. By applying an AFV300 module and an AFV200 module (High efficiency "HE" configuration), a TFT of +5,0 °C can be achieved.

### Select your efficiency

The size and number of AquaFree modules applied allows the efficiency level to be progressively increased from Basic (N) to Efficient (E) and even High efficiency (HE) levels.



The integral microprocessor allows AquaFree to operate independently.



Each AquaFree module features its own independent electrical panel.



The 3-way valve, installed on-board as standard, optimises the freecooling level.

