

Pump sets for WV series

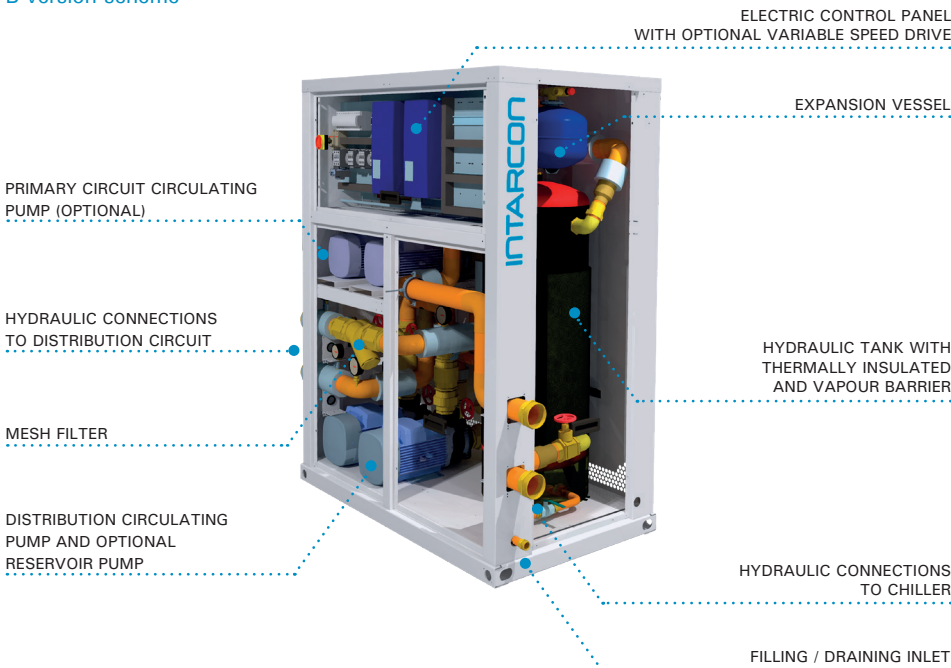


Closed-circuit pump sets glycol, assembled in galvanised sheet steel bodywork and structure with polyester paint for outdoor installation.

Features

- ▶ 400V 3N 50Hz power supply. Available in 60Hz. Others voltages by request.
- ▶ Glycol circulating pump with stainless steel impeller and optional back-up pump.
- ▶ Buffer tank with high density polyurethane foam insulation and vapour barrier (AH-2 and B series).
- ▶ Closed membrane expansion tank and safety valve calibrated to 4 bar.
- ▶ Mesh filter.
- ▶ Glycerine thermometers and pressure gauges.
- ▶ Air vent.
- ▶ Drain connection.
- ▶ Threaded hydraulic connections.
- ▶ Electrical control and power panel with magneto-thermal protection and independent differential for each pump, and electronic control unit for the management and rotation of secondary circuit pumps.

B version scheme



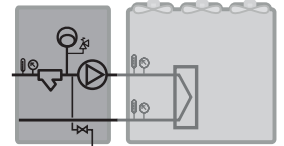
- ❄ Easily integrated modular construction.
- ❄ Optimised water and glycol assemblies.
- ❄ Reduced footprint.

Versions

▶ A version

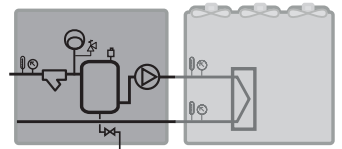
GV-AH-1: Primary pump set

Simple hydraulic unit with circulating pump, mesh filter and expansion vessel.



GV-AH-2: Primary pump set unit with buffer tank

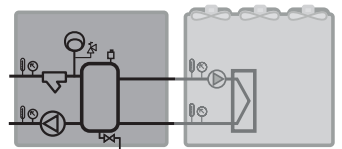
Pump set with medium or high pressure circulating pump at constant flow rate, for connection to one or more chillers.



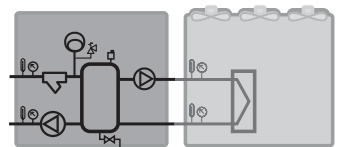
▶ B version

GV-BH-2: Secondary circuit pump set

Secondary circuit hydraulic unit, with buffer tank and medium or high pressure circulating pump at constant or variable flow rate (optional), for connection to one or more chiller equipped with primary circuit pump.



Optional: low-pressure primary pump in hydraulic unit, for connection to a chillers.



400V 3N 50Hz | High temperature | Water

Series / Model	Water flow (m ³ /h) 7 °C ⁽¹⁾	Main pump (kW)	Available pressure (kPa) ⁽³⁾	Inertia tank except 1 series (litres)	Expansion vessel (litres)	Hydraulic connection	Auxiliary primary pump B version (kW)	Service weight (kg)
AGV-AH-2 006 AGV-BH-2 006	3 to 6	1.1	300 to 200	100	5	2"	0.65	655
AGV-AH-2 009 AGV-BH-2 009	6 to 9	1.5	250 to 200	100	5	2"	0.65	670
AGV-AH-2 012 AGV-BH-2 012	9 to 12	1.5	230 to 160	100	5	2 1/2"	0.65	680
AGV-AH-2 015 AGV-BH-2 015	12 to 15	2.2	280 to 230	200	8	2 1/2"	0.65	800
AGV-AH-2 020 AGV-BH-2 020	15 to 20	2.2	270 to 180	200	8	3"	1.10	805
AGV-AH-2 025 AGV-BH-2 025	20 to 25	4.0	240 to 170	200	15	3"	2.20	860

400V 3N 50Hz | Positive temperature | Glycol

Series / Model	Flow MPG 35 % (m ³ /h) -8 °C ⁽²⁾	Main pump (kW)	Available pressure (kPa) ⁽³⁾	Inertia tank except 1 series (litres)	Expansion vessel (litres)	Hydraulic connection	Auxiliary primary pump B version (kW)	Service weight (kg)
MGV-AH-2 003 MGV-BH-2 003	2 to 4	0.65	220 to 150	100	5	1 1/2"	0.46	600
MGV-AH-2 004 MGV-BH-2 004	2 to 4	1.1	320 to 230	100	5	1 1/2"	0.46	615
MGV-AH-2 005 MGV-BH-2 005	4 to 6	1.1	270 to 150	100	5	2"	0.65	650
MGV-AH-2 006 MGV-BH-2 006	4 to 6	1.5	290 to 230	100	5	2"	0.65	675
MGV-AH-2 008 MGV-BH-2 008	6 to 9	1.5	240 to 150	100	8	2"	0.65	680
MGV-AH-2 009 MGV-BH-2 009	6 to 9	2.2	290 to 220	100	8	2"	0.65	690
MGV-AH-2 012 MGV-BH-2 012	9 to 12	2.2	270 to 200	200	15	2 1/2"	1.10	800
MGV-AH-2 015 MGV-BH-2 015	12 to 15	4.0	230 to 200	200	15	2 1/2"	1.10	840

Options

- ▶ Back-up main pump.
- ▶ Variable speed drive on main pump.
- ▶ Auxiliary back-up pump.
- ▶ Electronic control for heat recovery.

⁽¹⁾ Performance calculated for pumping water at 7°C.

⁽²⁾ Performance calculated for pumping 35 % propylene glycol concentration at -8°C.

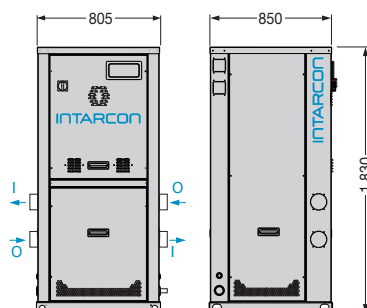
⁽³⁾ Hydraulic pressure available for the distribution circuit and the chiller.

Primary circuit auxiliary pump

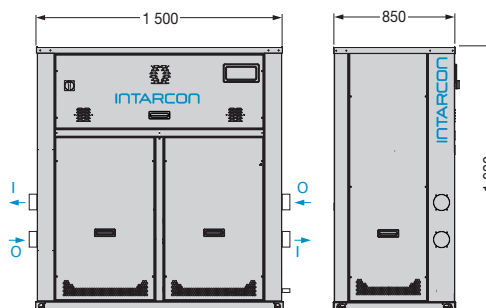
Auxiliary pump in the primary circuit is a low-pressure pump sized with an available pressure of about 100 kPa, enough to overcome the pressure drop of the exchanger of the chiller and a small section of piping.

Dimensions

1 series



2 series

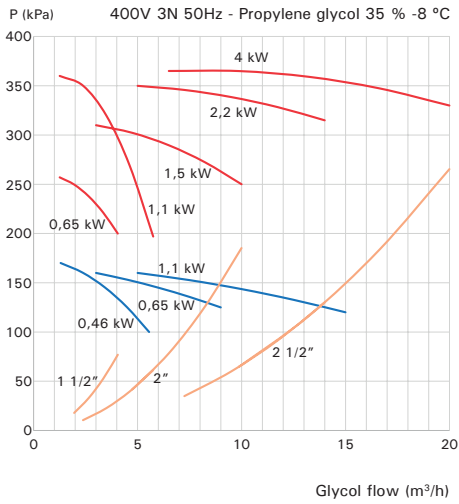


Dimensions in mm.

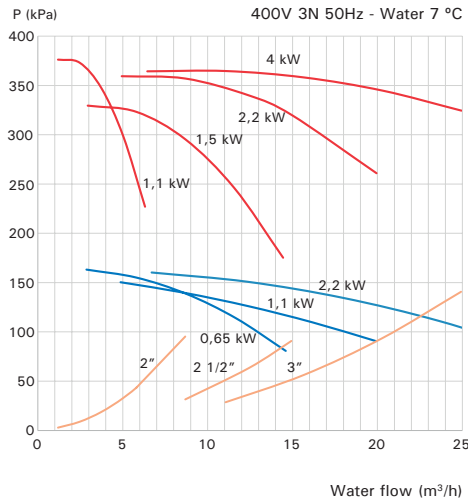
Pump sets

Characteristic curves

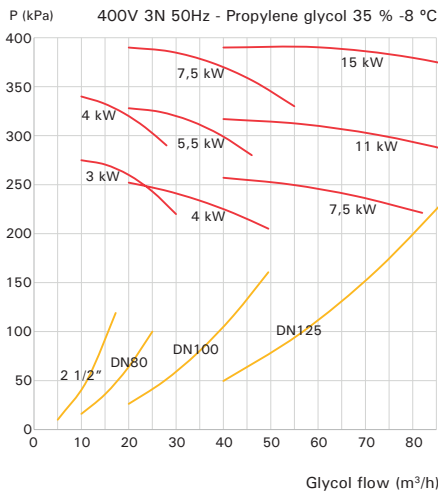
MWV series



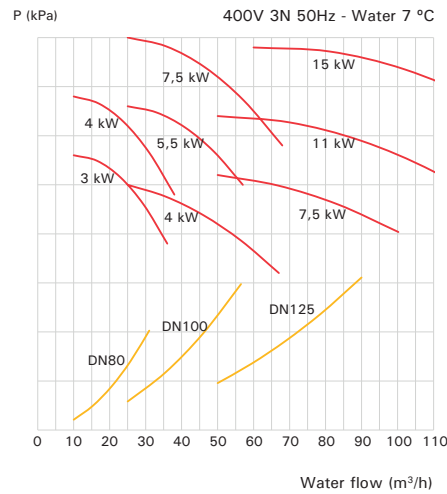
Serie AWW



MWW series



AWW series



- Main pump.
- Primary circuit booster pump.
- Pressure drop characteristic of the hydraulic unit.

The attached curves allow the operating point of the system to be checked on the basis of the pump characteristic curve and taking into account the internal pressure drop curve of the hydraulic unit.

In pump set with primary and secondary circuit (GV-BH and GW-BH versions), the hydraulic resistor of the chiller is compensated by the primary circuit pump.

For units with a single pumping unit (GV-AH and GW-AH version), the heater of the chiller must be taken into account and added to the available pressure required for the distribution circuit. The following values are recommended:

- WV series: 30-40 kPa.
- WW series: 40-50 kPa.

Example of selection

It is intended to select a pump set to be combined with the 35 % propylene glycol chiller, model MWW-FD-3 1503, with a cooling capacity of 260 kW at a temperature range of -2/-8 °C, it a glycol flow rate of 47.5 m³/h and an available pressure for the distribution circuit of 200 kPa.

For the required flow rate we are looking for the pump that results in a water column of 20 m between the characteristic curves of the pump and the DN100 pipe pump set, which corresponds to the hydraulic connections of the chiller. The 7.5 kW pump and DN100 connections characterise the pump set model MGW-BH-1 050.

Optionally, this hydraulic unit can be equipped with a primary circuit pump.