

MODULAR and ENBLOC WATER CONDENSED CHILLERS



NP

HFC 407 C
ecological refrigerant

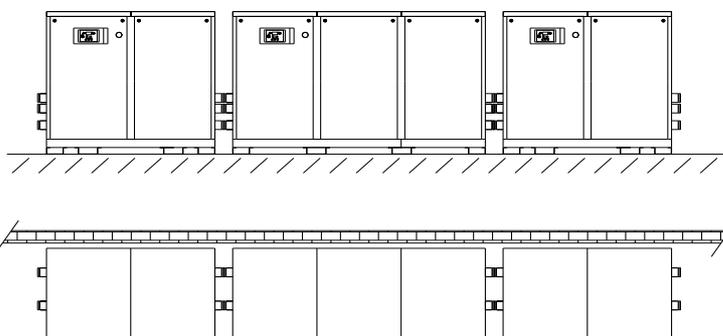


PROFILE

The modular water cooled chiller NP Series are designed to produce process cold water for industrial plants. The cooling involves the generation of hot water in the condenser heat exchange, it is possible to dissipate the heat load with thermoconvectors NOVA FRIGO. Otherwise, it is possible to use cooling towers or cold water from river etc.

They are completely independent units consisting of an hydraulic circuit complete of a tank, circulating pump and user pump. The special construction guarantees high efficiency, consequence of the lowest energetic consumption also under extreme conditions. In particular the oversizing of the exchangers enables the compressor to work under excellent conditions raising the cooling capacity. The chiller is controlled by a NOVA FRIGO microprocessor governing both the evaporating and the condensing pressures and to survey precise measures of the system parameters.

It is possible to control the units by a MULTICHILLER board which, after checking the heat load, adjusts the introduction of each compressor. The results are: stability and precision of the process temperature, balanced operation of compressors and, as consequence, an higher energy saving, avoiding useless starts.



TECHNICAL FEATURES

Steel main frame of pre-galvanized, aluminium steel treated and painted with epoxy powder.

Gas condenser it's a plate heat exchanger, with AISI 316 stainless steel, copper braze welded plates.

Gas evaporator it's a plate heat exchanger, with AISI 316 stainless steel, copper braze welded plates. It is placed inside a shell of thermo-insulating material to avoid the condensing and the heat exchange towards outside.

AISI 304 stainless steel tank, thermo-insulated with closed cell foam material to avoid the condensing and the heat exchange towards outside.

PATENTED MODULARITY

These products have been designed according to an INDUSTRIAL PATENT deposited and certified in the most important countries all over the world. Such an invention, technologically in the lead, grants TOTAL MODULARITY which allows the cooling, hydraulic, mechanical and electric coupling of units even of different capacity.

CONTROLLED BY MICROPROCESSOR

The NP series units are equipped with an innovative multi-function microprocessor control specially designed by NOVA FRIGO to optimize the modular systems operation and control for cooling.

Each unit or system can be equipped with remote control panel that allows the complete management of unit linked.

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TECHNICAL DATA

Model (1)	Cooling (2)		Heating		Compressor		E.E.R.	Gas	Pumps				Tank	Pipe connection	Sound level (3)	Dimensions			Net weight
	kW	kcal/h	kW	kcal/h	n°	kW			n°	kW	m³/h	bar				l	Ø	dB(A)	
NP 050	50,2	43.200	59,2	50.910	1	9,1	5,52	R407c	1	1,1	7,2	2,7	193	3"	55	1.990	1.110	1.750	900
NP 080	78,0	67.080	92,0	79.120	2	13,8	5,65	R407c	1	1,9	10,8	2,7	193	3"	57	1.990	1.110	1.750	1.200
NP 120	118,6	102.000	140,0	120.400	2	21,6	5,49	R407c	1	2,2	16,8	2,7	193	3"	58	1.990	1.110	1.750	1.500
NP 160	151,4	130.200	178,6	153.600	2	27,0	5,61	R407c	1	3,0	24,0	2,7	260	3"	60	2.890	1.110	1.750	1.600
NP 200	201,8	173.600	238,1	204.760	2	37,0	5,45	R407c	1	4,0	29,4	2,7	260	3"	61	2.890	1.110	1.750	1.850
NP 250	232,3	199.780	272,8	234.610	4	40,9	5,68	R407c	1	4,0	33,0	2,7	260	3"	62	3.790	1.110	1.750	2.100
NP 330/m	339,0	291.600	400,0	344.000	4	59,4	5,70	R407c	1	5,5	46,2	2,7	260	4"	62	3.790	1.110	1.750	2.500

(1) - Standard electric alimentation 400V-3Ph-50Hz - Special on request

(2) - Water out temperature 15°C - Water cooling temperature 30°C

(3) - Sound pressure level at 10 metres

COOLING CIRCUIT

Metal cartridge water filter fitted on the return line of the hydraulic plant as well as on the tank automatic filling. It stops impurities which could damage the plate exchanger or the pump.

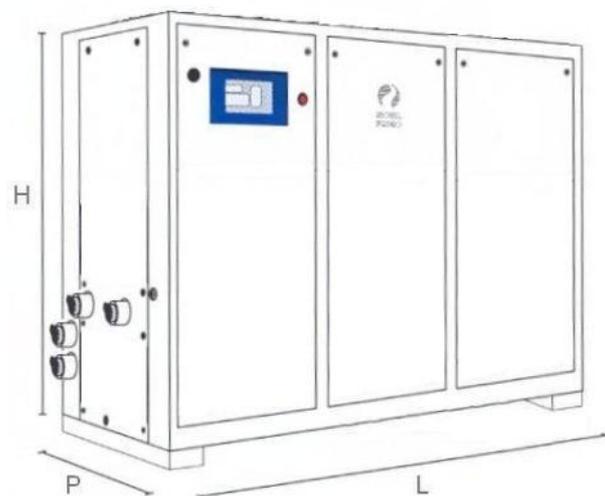
Flowmeter it controls the flow rate as protection of the plate exchanger.

Hydraulic connections placed sideways, they're already arranged for the modular coupling of more units with "Victaulic" DN80 roll forming.

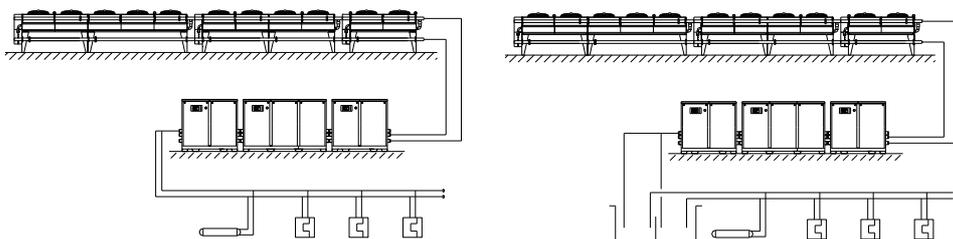
Safety valve fitted on tank to avoid eventual overpressure in case of operator's wrong manoeuvring.

Automatic air discharge valve to eliminate air locks into the hydraulic circuit.

Water drain complete drainage of the evaporator tank.



EXAMPLES OF INSTALLATION



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