



HYDRA HE

High efficiency air cooled liquid chillers



- **High efficiency**
- **For applications in residential and commercial areas**
- **Low noise level**
- **Adaptable to various needs**

The HYDRA HE are high efficiency air cooled water chillers, for outdoor installations for applications in residential and commercial areas. Every unit is designed for high energy efficiency, is provided with scroll compressors and the refrigerant used is R410A. The compactness and the presence of a wide range of equipments and accessories, allow the use of the HYDRA HE units in any plant environment.

Thanks to the adopted construction solutions, the installation and maintenance activities are particularly facilitated, allowing time and money saving to the installation personnel.

In every model of the series, the compressor is installed in a space which is acoustically isolated and the fans used are variable speed and high ef-

ficiency. The noise level is low and absolutely compatible with the standards generally requested. Pack-type, finned cooling condensers made of expanded copper tubes in an aluminum finned pack and frame supporting the galvanized steel exchanger.

Provided with VICTAULIC® water fittings for easy connection to the user's plant.

Ventilating section consisting of helical fan(s) with blades and motor with direct, rotating stator coupling.

The ventilator is installed on a suitably-shaped nozzle to provide the best airhydraulic performance and is equipped with a safety grill made of painted galvanized steel.

Accessories

Rubber antivibration mountings std
Top remote control
Interface module RS485 Modbus
Antifreeze evap. heatern + pipes + pomp
Compressor magnetothermal protection
Crankcase heater
Electronic expansion valve
Heating kit + ventilation for electric board
Liquid receivers
Water filter kit
Refrigerants gauges
Antifreeze evaporator heater + pipes
Evaporator antifreeze heaters + pipes+ pumps + boiler
Condenser fully ECOFIN painted
Condensing battery protection grid
Compressors soft starter
Electrical panel heating + ventilation kit
Liquid line electrical valve

Technical Data

HYDRA HE			051	061	081	091	101	121	131	151
A35 / W7	Cooling capacity (1)	kW	15,01	17,44	21,58	24,72	29,32	32,00	37,04	43,37
	Potenza ass. totale (3)	kW	4,22	4,99	6,10	6,99	8,10	9,02	10,53	14,22
	EER (EN 14511-2013)		3,50	3,45	3,49	3,49	3,58	3,51	3,48	3,51
A35 / W18	Cooling capacity	kW	21,61	24,59	30,36	34,66	41,48	45,37	52,02	61,04
	Potenza ass. totale (3)	kW	4,22	5,32	6,47	7,65	8,67	9,64	11,39	13,18
	EER (EN 14511-2013)		4,99	4,53	4,60	4,44	4,69	4,61	4,48	4,54
Scroll Compressors			n°	1	1	1	1	1	1	1
Refrigerant Circuits			n°	1	1	1	1	1	1	1
Capacity steps			n°	1	1	1	1	1	1	1
Supply voltage		V/Ph/Hz	400/3P+N/50							
Sound power LwA (4)		dB(A)	71,9	71,3	72,5	74,9	73,9	75,5	76,1	76,8
Sound pressure LpA (4)		dB(A)	40,4	39,8	41,1	43,3	42,3	43,9	44,5	45,2
COMPRESSOR										
Max current		A	11,68	15,61	17,07	22,16	22,83	26,36	32,67	35,84
Current at start		A	65,6	76,6	102,6	114,2	142,2	121,2	143,2	177,2
USER PLANT HEAT EXCHANGER										
Brazen plate exchanger		n°	1	1	1	1	1	1	1	1
Water flow		l/s	0,72	0,83	1,03	1,18	1,40	1,53	1,77	2,07
Pressure drops		kPa	10,82	9,61	10,75	10,55	11,83	11,76	13,40	14,37
FAN SECTION										
Fans		n°	1	1	1	2	2	2	2	2
Total air flow		m³/s	2,92	2,78	3,06	5,69	5,56	5,83	6,25	6,25
Rotation speed		min ⁻¹	949	908	1.012	908	908	949	1.010	1.032
Unit power input		kW	0,40	0,36	0,51	0,34	0,36	0,40	0,49	0,54
Unit current input		A	0,68	0,61	0,87	0,58	0,61	0,68	0,83	0,92
EXPANSION VESSEL										
Capacity		l	6	6	6	6	6	6	6	6
Max. water pressure		kPa	600	600	600	600	600	600	600	600
Nitrogen pre-charge pressure		kPa	150	150	150	150	150	150	150	150
UNIT SIZES AND WEIGHT										
Length		mm	1590	1590	1590	1990	1990	1990	1990	1990
Width		mm	780	780	780	900	900	900	900	900
Height		mm	1300	1300	1300	1550	1550	1550	1550	1550
Weight (5)		Kg	217	225	235	331	365	381	391	406
OPTIONAL STORAGE TANK										
Contentence		l	60	60	60	90	90	90	90	90

(1) Con salto termico fluido impianto: 5 °C

(3) Potenza assorbita totale escluso pompa.

(4) Potenza sonora in accordo alla normativa ISO3744 Livello medio di pressione sonora a 10m in campo libero su superficie riflettente

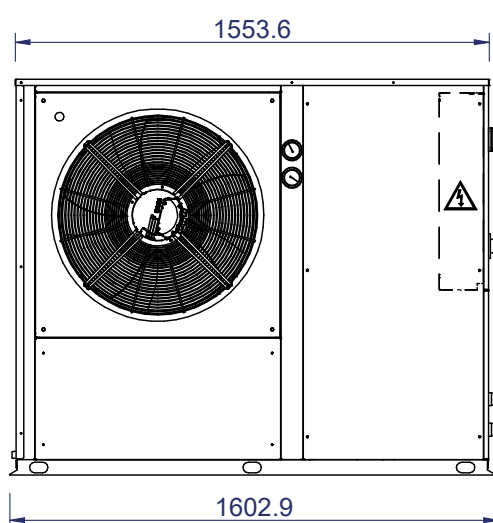
(5) Peso a vuoto unità base (senza accessori).

Technical Data

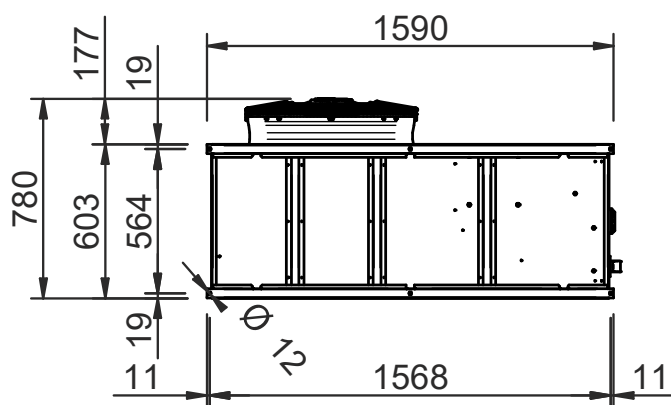
HYDRA		051	061	081	091	101	121	131	151
HYDRONIC KIT (OPTIONS)									
VERSIONS: 1 pump std									
pump n°	n°	1	1	1	1	1	1	1	1
Available external pressure	kPa	90	87	78	74	95	92	83	70
Power input (each)	kW	0,2	0,2	0,2	0,2	0,3	0,3	0,3	0,3
Current input (each)	A	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3
Empty weight	Kg	9,5	9,5	9,5	11,5	13,5	13,5	13,5	13,5
VERSIONS: 1 high pressure pump									
pump n°	n°	1	1	1	1	1	1	1	1
Available external pressure	kPa	174	166	147	168	155	148	132	110
Power input (each)	kW	0,88	0,88	0,88	1,40	1,40	1,40	1,40	1,40
Current input (each)	A	1,7	1,7	1,7	2,5	2,5	2,5	2,5	2,5
Empty weight	Kg	15,2	15,2	15,2	19	19	19	19	19
VERSIONS: 1 very high pressure pump									
pump n°	n°	1	1	1	1	1	1	1	1
Available external pressure	kPa	277	272	257	258	245	237	220	196
Power input (each)	kW	1,4	1,4	1,4	2,0	2,0	2,0	2,0	2,0
Current input (each)	A	2,5	2,5	2,5	3,4	3,4	3,4	3,4	3,4
Empty weight	Kg	19,9	19,9	19,9	22,1	22,1	22,1	22,1	22,1
VERSIONS: 1 pump std+ buffer tank									
pump n°	n°	1	1	1	1	1	1	1	1
Available external pressure	kPa	90	87	79	74	95	92	83	70
Power input (each)	kW	0,2	0,2	0,2	0,2	0,3	0,3	0,3	0,3
Current input (each)	A	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3
Empty weight	Kg	29,5	29,5	29,5	37,5	39	39	39	39
VERSIONS: 1 high pressure pump+ buffer tank									
pump n°	n°	1	1	1	1	1	1	1	1
Available external pressure	kPa	174	166	147	168	155	148	132	110
Power input (each)	kW	0,9	0,9	0,9	1,4	1,4	1,4	1,4	1,4
Current input (each)	A	1,7	1,7	1,7	2,5	2,5	2,5	2,5	2,5
Empty weight	Kg	35,2	35,2	35,2	45	45	45	45	45
VERSIONS: 1 very high pressure pump + buffer tank									
pump n°	n°	1	1	1	1	1	1	1	1
Available external pressure	kPa	277	272	257	258	245	237	220	196
Power input (each)	kW	1,4	1,4	1,4	2,0	2,0	2,0	2,0	2,0
Current input (each)	A	2,5	2,5	2,5	3,4	3,4	3,4	3,4	3,4
Empty weight	Kg	39,9	39,9	39,9	48,1	48,1	48,1	48,1	48,1

Sizes - Operating spaces - Anti vibrating mounts position

HYDRA HE 051 - 061 - 081



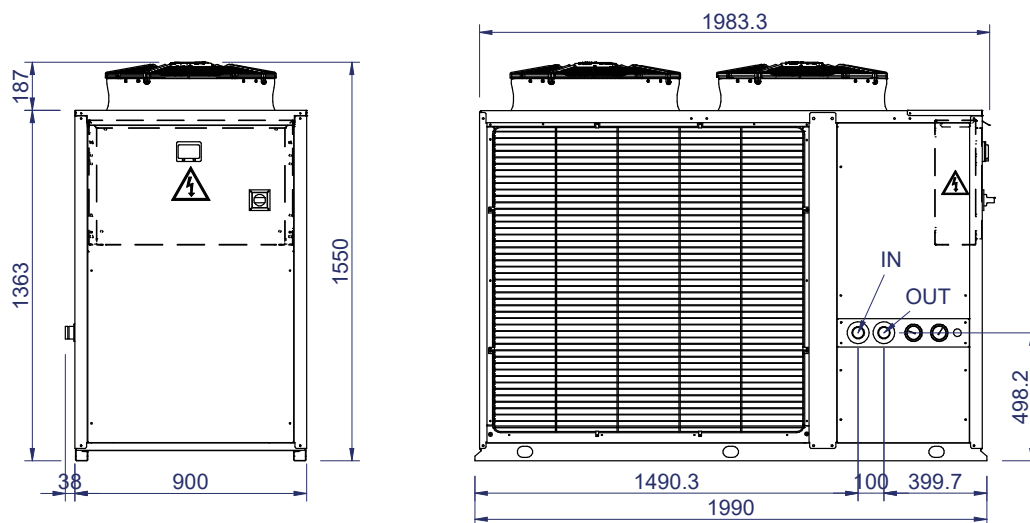
Anti vibrating mounts position



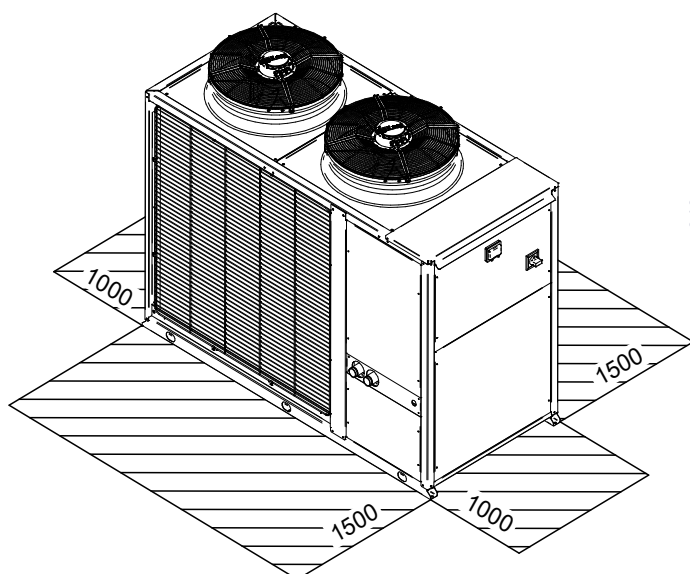
Technical Drawings

Sizes - Operating spaces - Anti vibrating mounts position

HYDRA HE 091 - 101 - 121 - 131 - 151



Operating spaces



Anti vibrating mounts position

