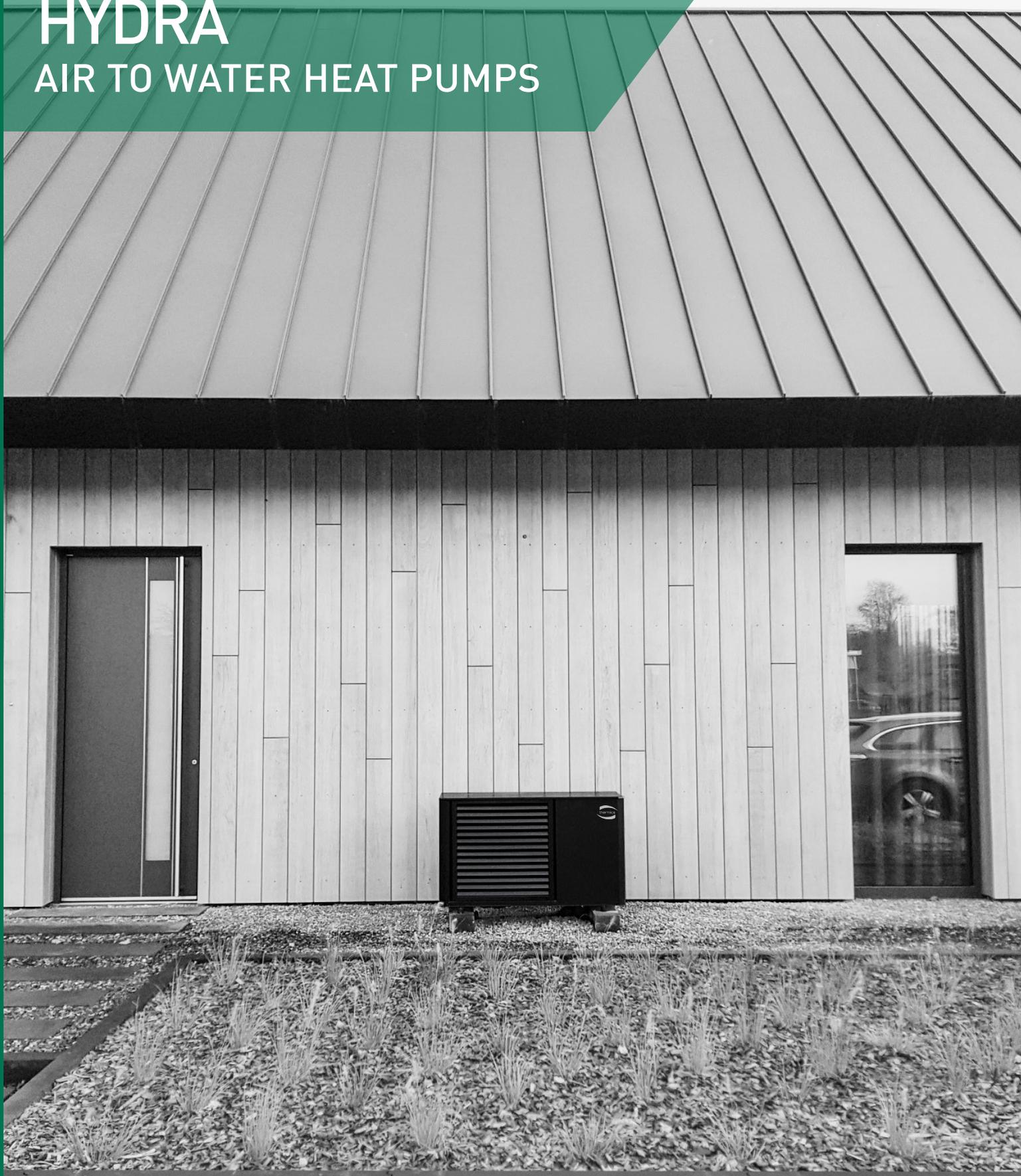


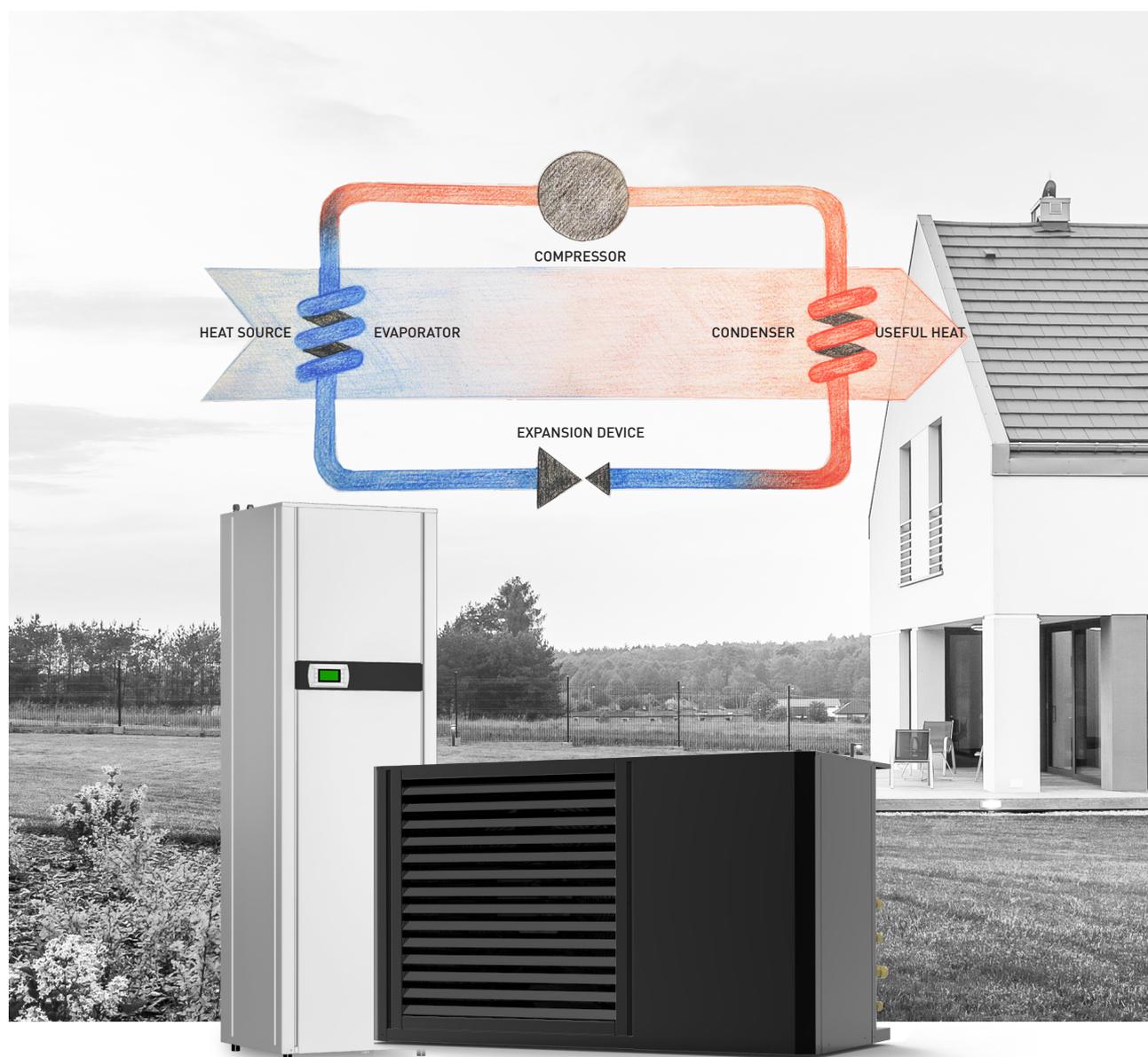
HYDRA

AIR TO WATER HEAT PUMPS



HYDRA heat pump units are particularly suitable for applications with radiant floor heating systems or for low temperature applications such as fancoils, thermoventilation units and air handling units, appropriately sized for flow temperature of max 50°C. All versions are equipped with EC silent axial fans and with Twin Rotary inverter compressors that allow complete management of the power of each individual component. In fact, compressor, fan and circulators are regulated in each instant by a control unit based on programs developed internally. It has been designed to be immediately usable and

intuitive; it can be integrated in many system configurations. HYDRA units have a structure in hot-dip galvanised steel with powder paint finish highly weather-resistant. They are characterized by a high efficiency and by the integrated management of the circulator, which allows the production of high temperature water with a three-way deviator valve on a boiler and the possibility of controlling an emergency electric heater or, alternatively, the integrated management of a circulator and exchanger dedicated to the production of hot domestic water.



ALL-IN-ONE

Hydra heat pumps take care about winter heating, summer cooling, and domestic hot water. The range includes 6 units with heating capacity from 8 kW to 30 kW. The range covers most residential heating and cooling requirements: from flats to villas.

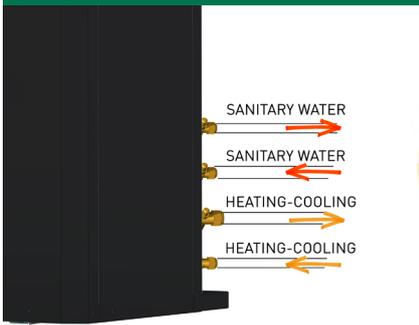


FUNCTIONING

Heat Pumps take heat from an outdoor cold ambient to transfer it to an indoor ambient, further heating it up. When Heat Pumps are activated in reversed cycle, this allows cooling of indoor spaces in summer time.

Electronic control of system delivery temperature through climatic curve.

4 PIPES



SIMULTANEOUS DOMESTIC HOT WATER AND HEATING OR COOLING WITH NO NEED OF ELECTRICAL HEATER

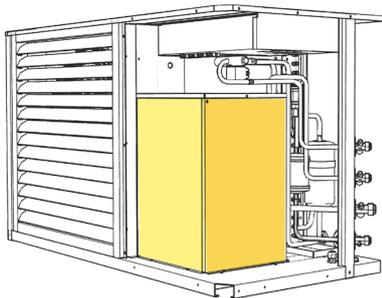
4 pipes units can manage high and low temperature circuits at the same time. In summer mode operation the high temperature exchanger will work as cooler, improving the overall yield and producing hot water recovering energy that would otherwise not be used.

HUGE AMOUNTS OF FREE DOMESTIC HOT WATER IN SUMMER DURING COOLING OF THE HOUSE - HIGH COMFORT



HIGHER TEMPERATURE DOMESTIC HOT WATER DURING WINTER REDUCING ENERGY BILLS

COMPRESSOR SOUND-BLOCK



REDUCING 5 dB(A) THANKS TO THE SPECIAL COMPRESSOR INSULATION ENGINEERED BY THERMICS

A low noise level is ensured by a smart control system that regulates the speed of the compressor and the fan. Anti-vibration supports are fitted to the compressor and anti-noise multi-layer insulation is implemented.

**QUIET MODE
LOW ENERGY BILLS**



TWIN ROTARY INVERTER TECHNOLOGY



POWER REGULATION

Through the use of Twin Rotary Inverter technology Hydra is able to regulate the unit power according to the real needs. This modulation also involves fan and circulators to achieve the highest efficiency.

HIGH EFFICIENCY



EASY-WEB



EASY INTERNET WEB SERVER MONITORING AVAILABLE FOR ALL UNITS

The control unit is made by Evco and can be combined with a highly intuitive touch-screen control with which all operating parameters as well as set points and usage settings can be controlled. Versatile and intuitive controller based on programs developed internally.

NO MORE WORRIES ABOUT AFTER SALES AND MAINTENANCE



PREDICTIVE MAINTENANCE POSSIBLE

MULTIPLE DEFROSTING SYSTEM



ALLOWS THE HP TO ACTIVATE TWO DIFFERENT DEFROST SYSTEMS, HOT GAS OR REVERSING VALVE

Thermics developed a unique multi-stage defrosting system that activated different energy levels according to load and external conditions. Light and energy-efficient defrosting is made when HP works for low-demanding houses with moderate weather conditions.

LESS AND LIGHTER DEFROSTING CYCLES WILL GIVE LOWER ENERGY CONSUMPTION

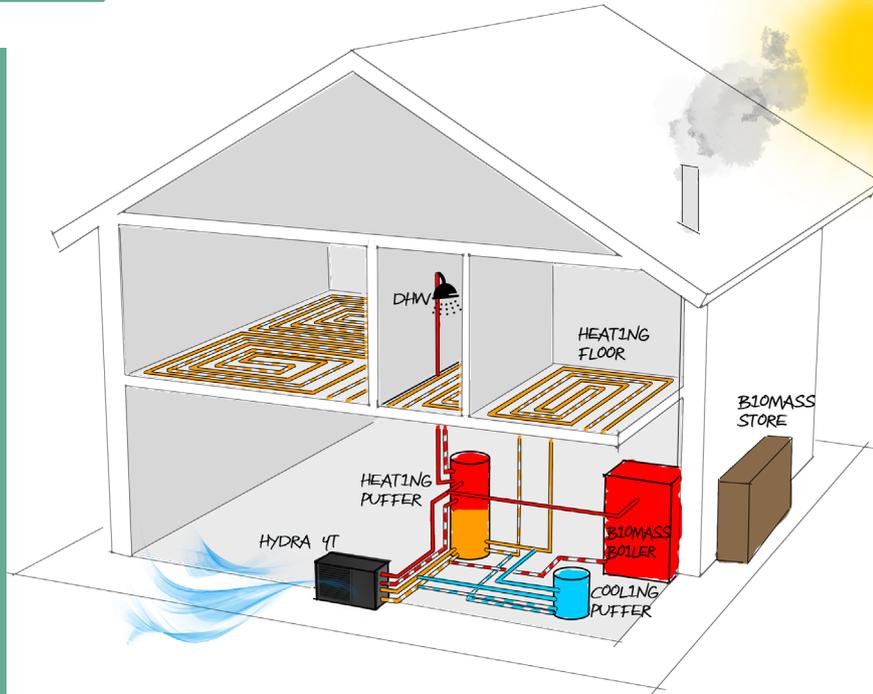


VILLA HYBRID

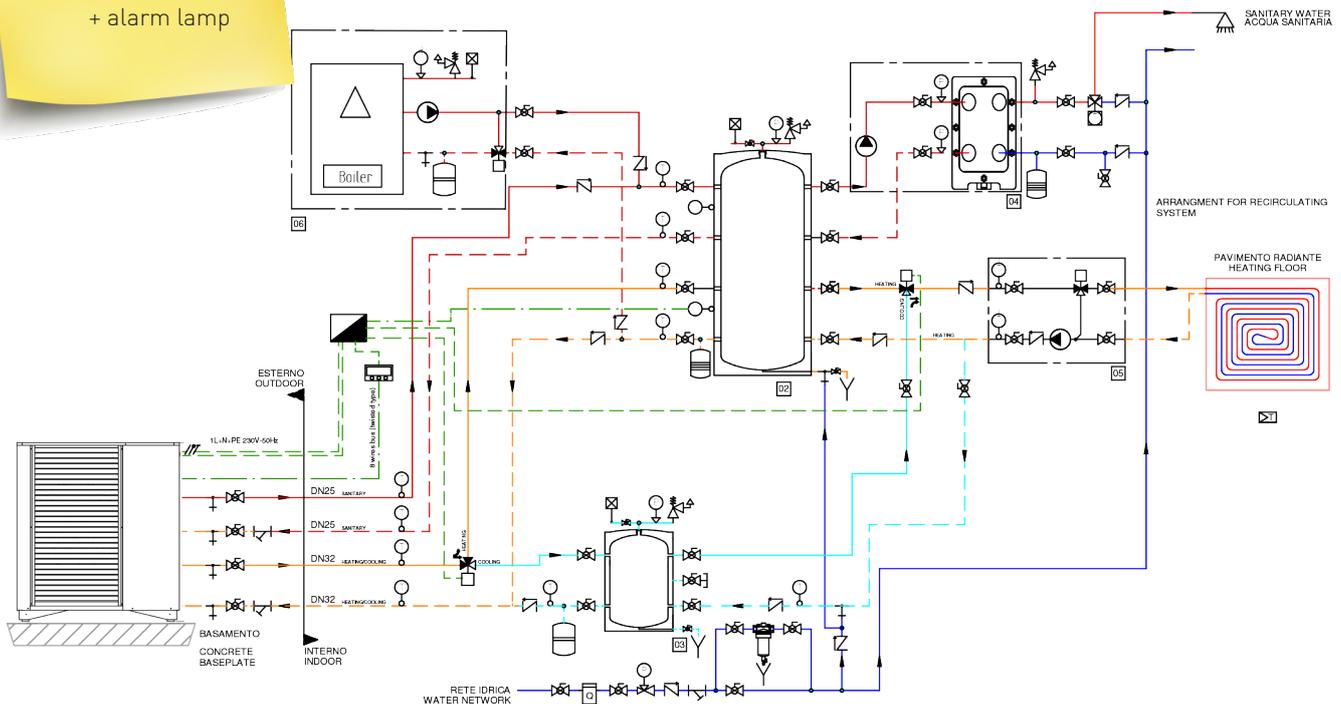
Luxury applications, where multiple renewable energies come together. Monoblock Hydra is the best option to combine with solar thermal and biomass. Easy Box allows a quick and safe installation with simple management for complex plants.

COMPONENTS:

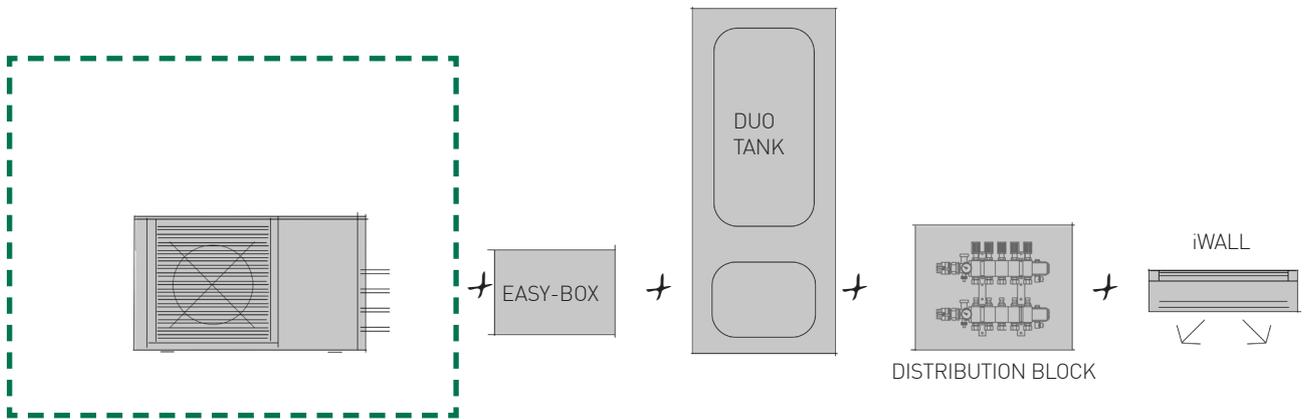
- + Hydra 4t MB
- + Biomass boiler or solar
- + Duo-tank
- + Easy-Box



Easy-Box
+ winter/summer mode
+ alarm lamp

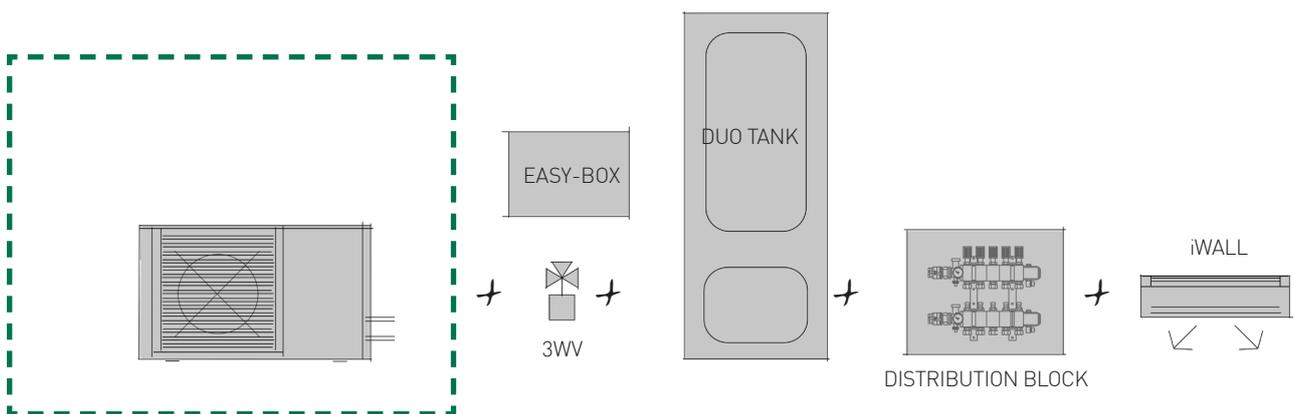


HYDRA MONOBLOCK 4 PIPES



8TLB01450	HYDRA 12 MB 4T - 230V - RAL7016
8TLB01450.01	HYDRA 12 MB 4T - 400V - RAL7016
8TLB01460	HYDRA 15 MB 4T - 230V - RAL7016
8TLB01460.01	HYDRA 15 MB 4T - 400V - RAL7016
8TLB01470	HYDRA 20 MB 4T - 400V - RAL7016
8TLB01480	HYDRA 25 MB 4T - 400V - RAL7016
8TLB01490	HYDRA 30 MB 4T - 400V - RAL7016

HYDRA MONOBLOCK 2 PIPES

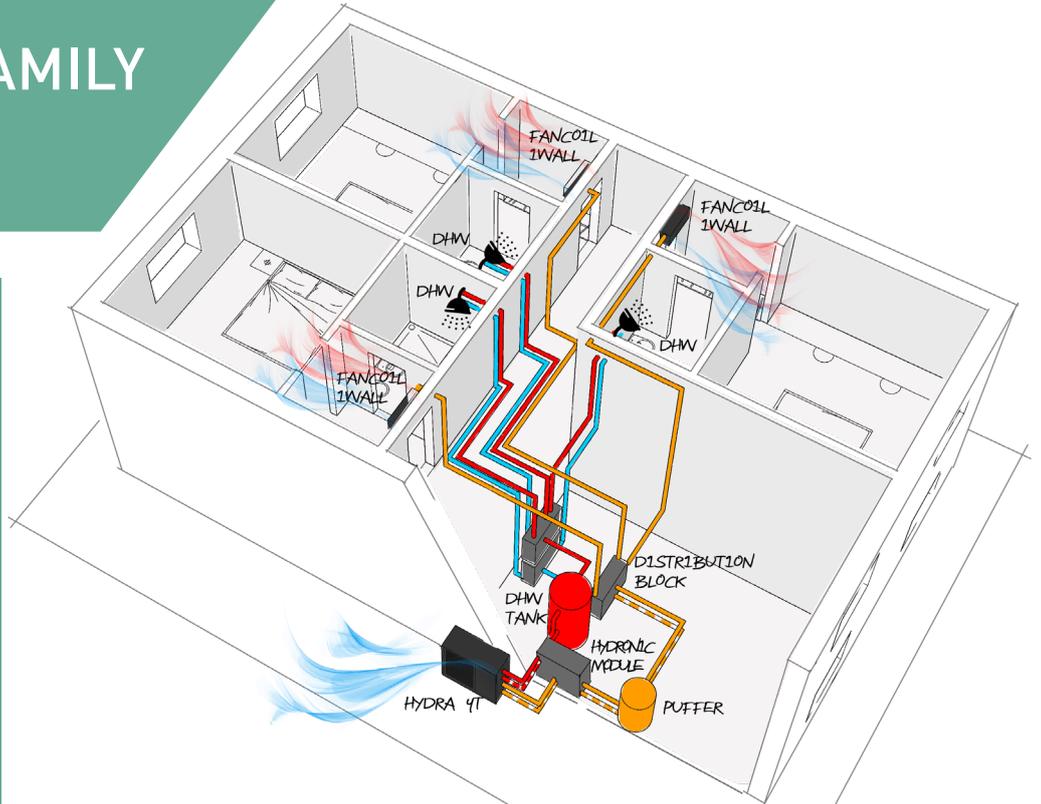


8TLB01340	HYDRA 8 MB 2T - 230V - RAL7016
8TLB01340.01	HYDRA 8 MB 2T - 400V - RAL7016
8TLB01350	HYDRA 12 MB 2T - 230V - RAL7016
8TLB01350.01	HYDRA 12 MB 2T - 400V - RAL7016
8TLB01360	HYDRA 15 MB 2T - 230V - RAL7016
8TLB01360.01	HYDRA 15 MB 2T - 400V - RAL7016
8TLB01370	HYDRA 20 MB 2T - 400V - RAL7016
8TLB01380	HYDRA 25 MB 2T - 400V - RAL7016
8TLB01390	HYDRA 30 MB 2T - 400V - RAL7016

SMALL MULTIFAMILY

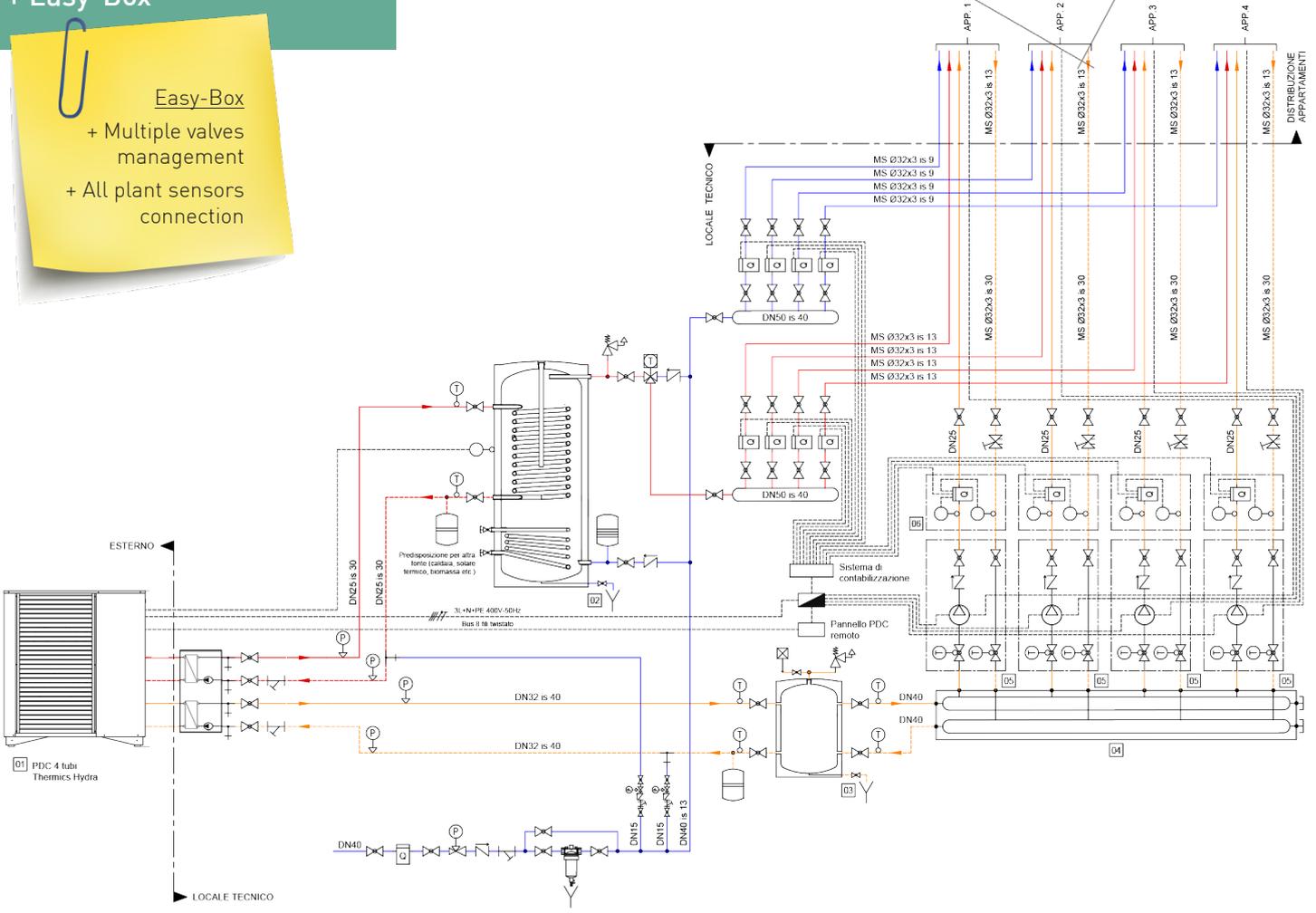
Small multifamily houses, where cooling and DHW demand is high. Benefit of cooling with one unique plant is coupled with free DHW production

- COMPONENTS:
- + Hydra 4T MB
 - + Fancoils iWall
 - + DHW tank
 - + Easy-Box

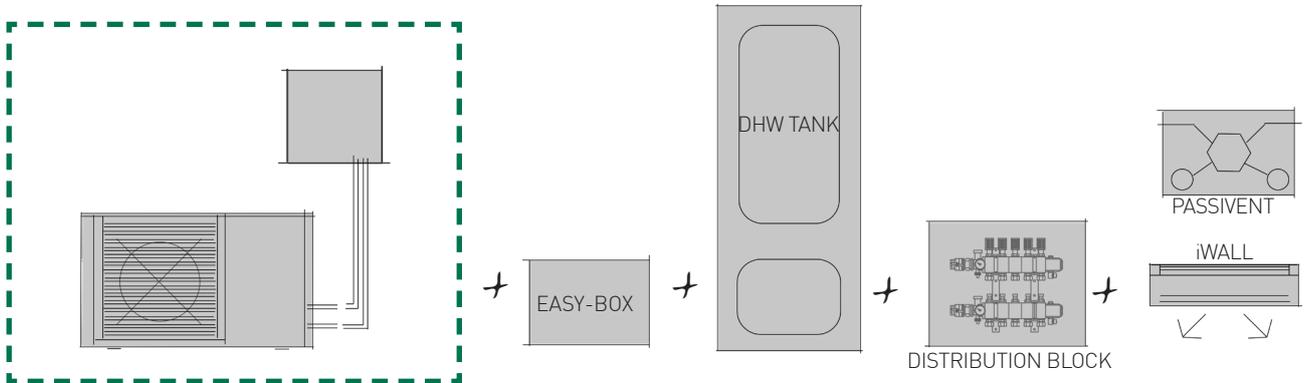


Easy-Box

- + Multiple valves management
- + All plant sensors connection

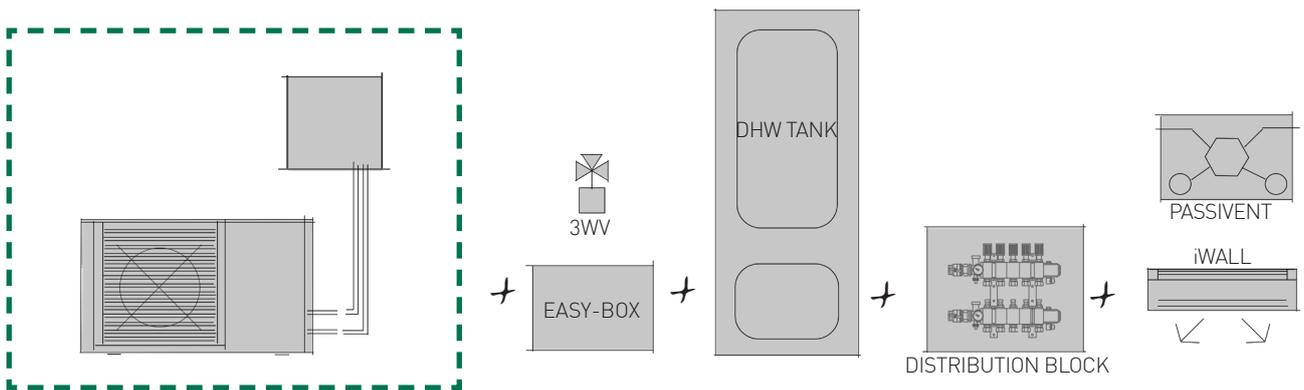


HYDRA SPLIT- 4 PIPES



8TLB01240	HYDRA 8 SP 4T - 230V - ue RAL7016
8TLB01240.01	HYDRA 8 SP 4T - 400V - ue RAL7016
8TLB01250	HYDRA 12 SP 4T - 230V - ue RAL7016
8TLB01250.01	HYDRA 12 SP 4T - 400V - ue RAL7016
8TLB01260	HYDRA 15 SP 4T - 230V - ue RAL7016
8TLB01260.01	HYDRA 15 SP 4T - 400V - ue RAL7016
8TLB01270	HYDRA 20 SP 4T - 400V - ue RAL7016

HYDRA SPLIT- 2 PIPES



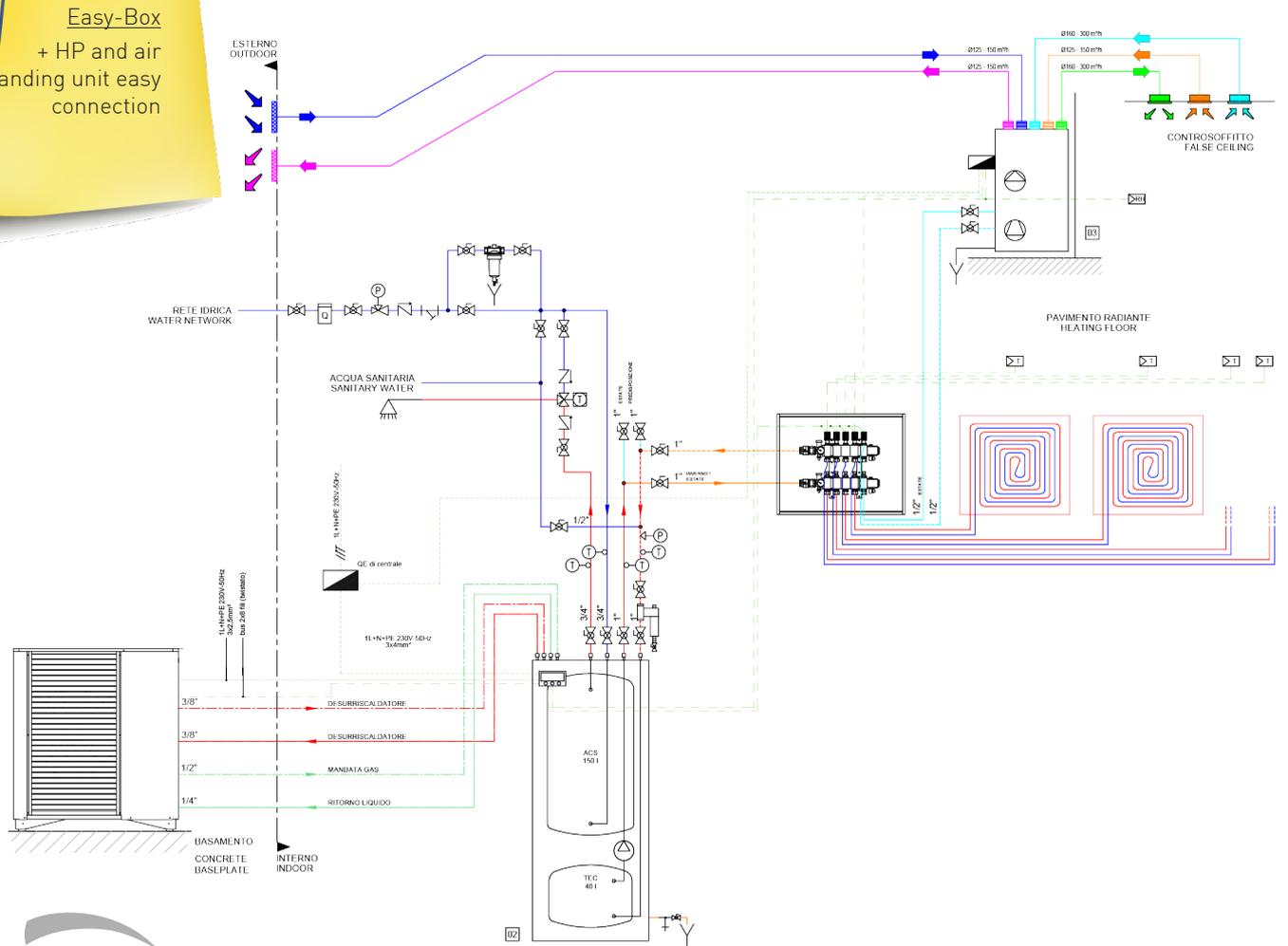
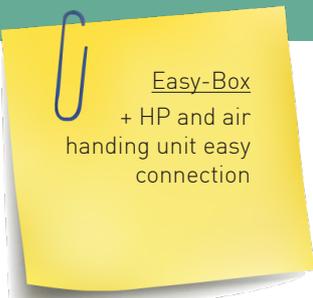
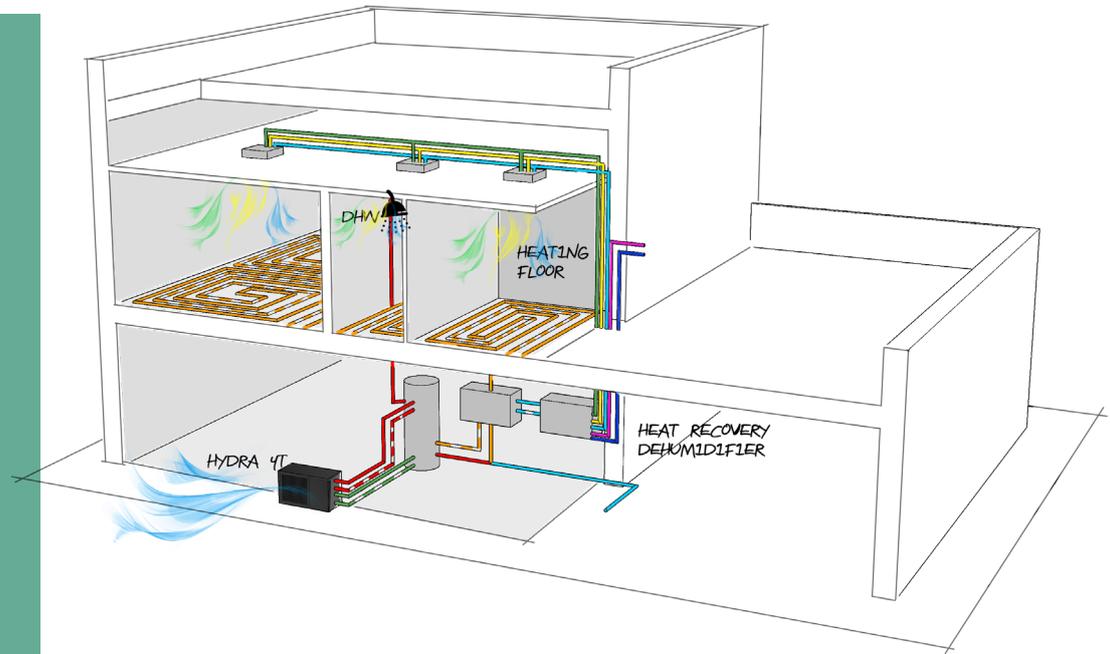
8TLB01140	HYDRA 8 SP 2T - 230V - ue RAL7016
8TLB01140.01	HYDRA 8 SP 2T - 400V - ue RAL7016
8TLB01150	HYDRA 12 SP 2T - 230V - ue RAL7016
8TLB01150.01	HYDRA 12 SP 2T - 400V - ue RAL7016
8TLB01160	HYDRA 15 SP 2T - 230V - ue RAL7016
8TLB01160.01	HYDRA 15 SP 2T - 400V - ue RAL7016
8TLB01170	HYDRA 20 SP 2T - 400V - ue RAL7016

VILLA ALL ELECTRIC

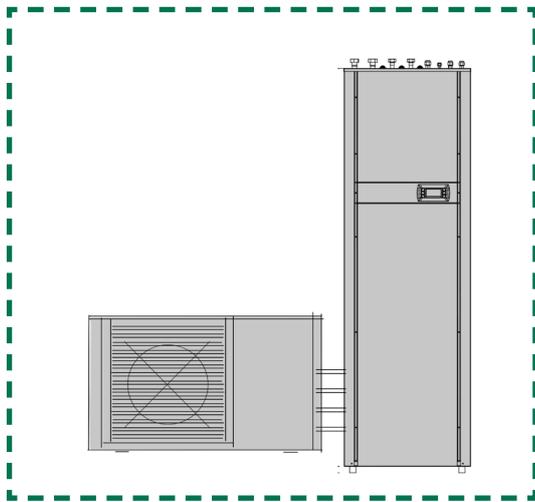
New big flats and/or villas going for all-electric solutions. Hydra Split is the most compact and complete system. Taking always advantages from unique 4 pipes principle.

COMPONENTS:

- + Hydra 4t Split
- + Radiant heating/cooling systems
- + Easy-Box



HYDRA - DHW - 4 PIPES



8TLB01100 HYDRA 8 SP 4T ACS 180 - 230V - ue RAL7016

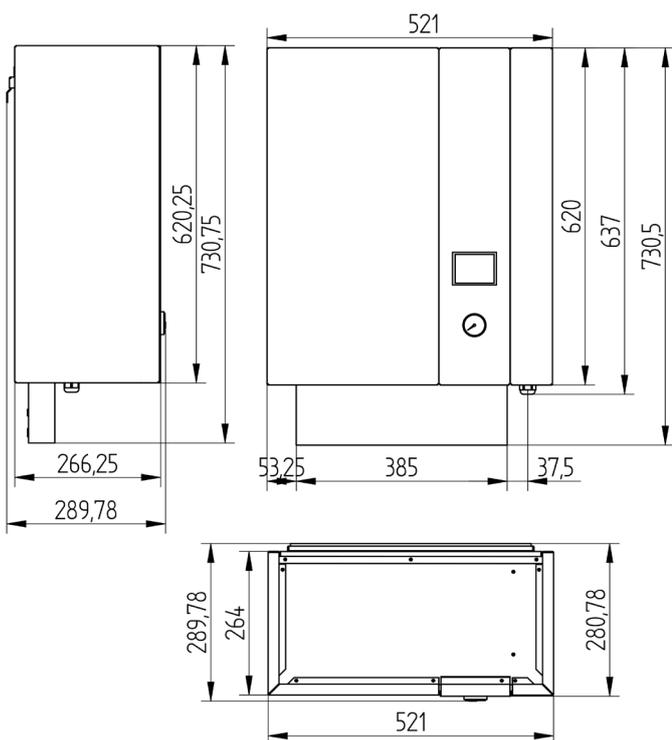
8TLB01100.01 HYDRA 8 SP 4T ACS 180 - 400V - ue RAL7016

8TLB01110 HYDRA 12 SP 4T ACS 180 - 230V - ue RAL7016

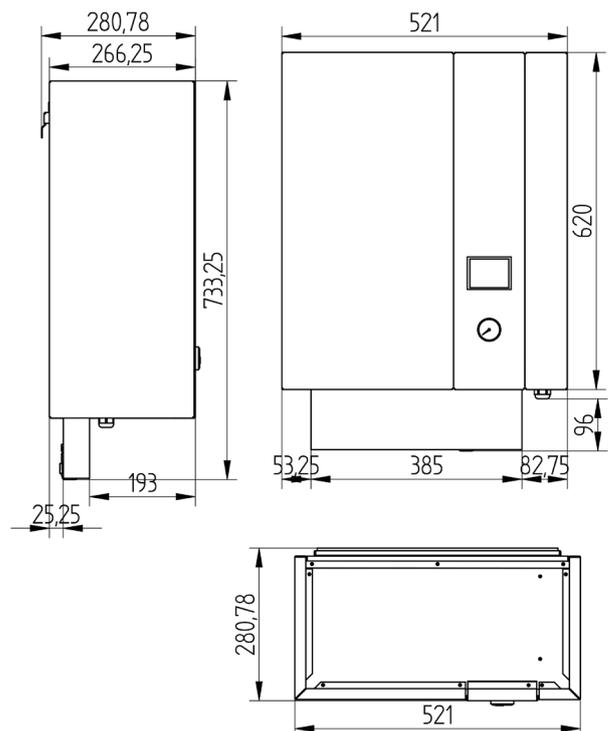
8TLB01110.01 HYDRA 12 SP 4T ACS 180 - 400V - ue RAL7016

DIMENSIONS

HYDRA - 8/12kW - SPLIT

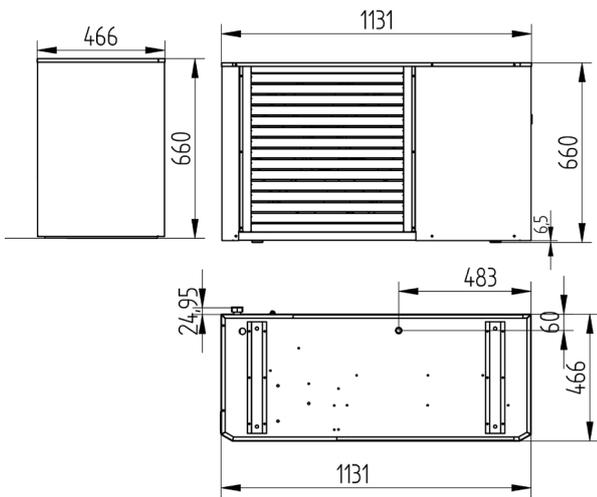


HYDRA - 20kW - SPLIT

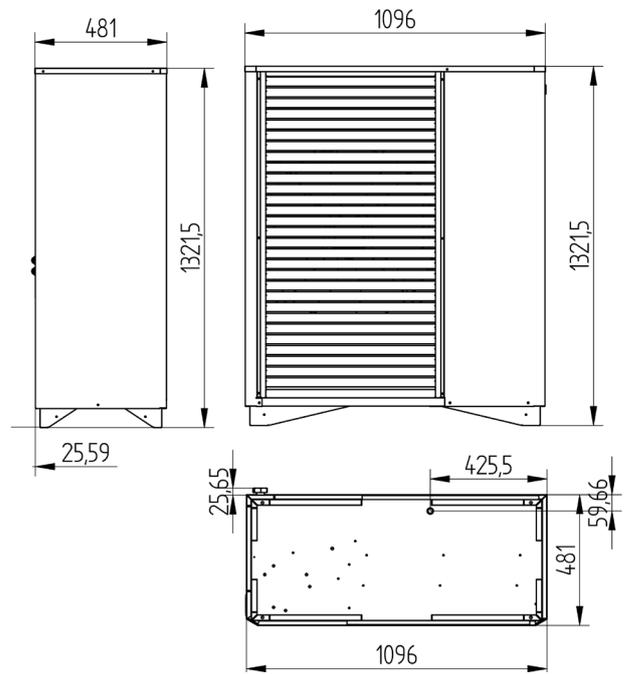


DIMENSIONS

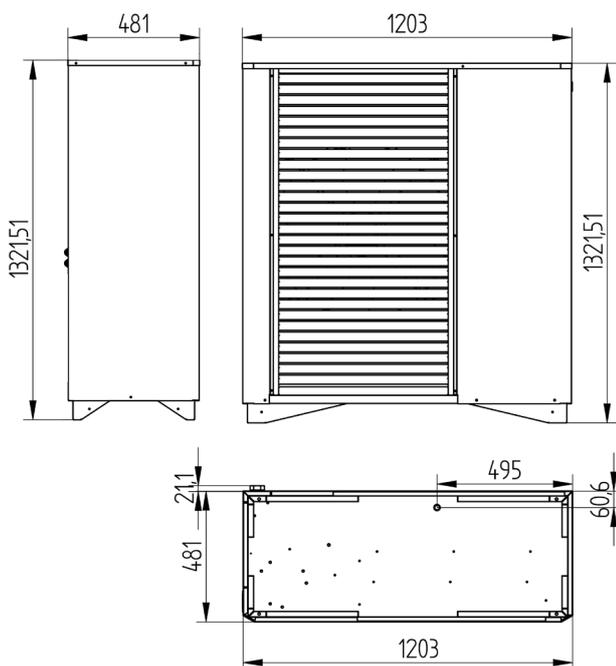
HYDRA - 8kW



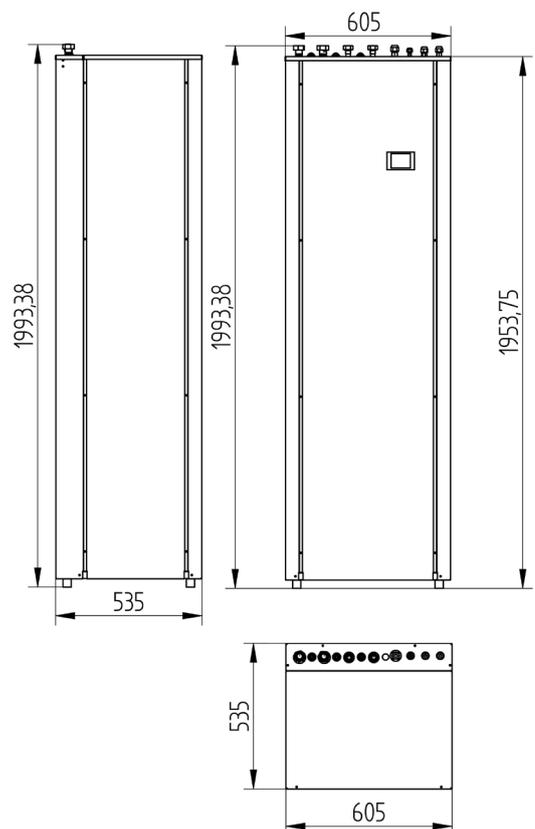
HYDRA - 12kW



HYDRA - 15/20kW



HYDRA- ACS180



TECHNICAL SPECIFICATIONS

HYDRA		unit	HYDRA8kW	HYDRA12kW	HYDRA15kW	HYDRA20kW	HYDRA25kW	HYDRA30kW	
WINTER MODE	A7/W35	Heating capacity	100% kW	8,41	12,32	14,87	19,03	24,64	31,88
			66% kW	5,23	7,72	9,77	11,92	16,12	20,86
			33% kW	2,45	3,74	4,67	5,77	7,57	9,80
		Compressor electrical consumption	100% kW	1,63	2,51	2,93	3,74	4,86	6,34
		Total electrical consumption	100% kW	1,77	2,77	3,27	4,18	5,22	6,86
		COP		4,75	4,44	4,80	4,55	4,72	4,65
	A7/W45	Heating plant							
		Water mass flow	m³/h	1,50	2,12	2,56	3,27	4,24	5,48
		Available head	mca	4,50	3,00	4,60	4,30	3,50	7,50
		Circulation pump el. consumption	kW	0,06	0,06	0,14	0,14	0,14	0,30
		Heating capacity	100% kW	8,19	11,91	14,27	18,39	23,89	30,92
			66% kW	5,07	7,42	9,41	11,52	15,57	20,16
A7/W50		33% kW	2,37	3,59	4,54	5,58	7,26	9,39	
	Compressor electrical consumption	100% kW	2,04	3,07	3,60	4,55	6,00	7,82	
	Total electrical consumption	100% kW	2,18	3,33	3,94	4,99	6,36	8,34	
	COP		3,75	3,57	3,62	3,69	3,75	3,71	
	Heating plant								
	Water mass flow	m³/h	1,41	2,05	2,45	3,16	4,11	5,32	
SUMMER MODE	A35/W18	Available head	mca	5,50	4,00	5,60	5,30	4,50	8,50
		Condition A7/W50							
		Heating capacity	kW	8,07	11,67	13,88	18,05	23,49	30,41
		Plant mass flow	m3/h	1,39	2,01	2,39	3,10	4,04	5,23
		Available head	mca	3,50	2,70	3,10	3,00	3,80	3,50
			100% kW	10,76	15,64	18,61	24,15	31,30	40,63
A35/W7	A35/W18	Cooling capacity	66% kW	10,76	9,87	12,16	15,24	20,62	26,91
			33% kW	3,26	4,83	5,70	7,58	9,82	12,82
		Compressor electrical consumption	100% kW	1,83	2,58	3,31	4,14	5,33	6,95
		Total electrical consumption	100% kW	1,97	2,84	3,65	4,58	5,69	7,47
		EER		5,47	5,50	5,10	5,28	5,47	5,44
		Heating plant							
	A35/W7	Water mass flow	m3/h	1,85	2,69	3,20	4,15	5,38	6,99
		Available head	mca	4,00	2,80	4,00	3,80	2,00	5,30
		Cooling capacity	100% kW	7,54	10,90	12,83	16,89	24,07	28,41
			66% kW	4,39	6,33	6,33	6,33	6,33	6,33
			33% kW	2,06	3,05	3,05	3,05	3,05	3,05
		Compressor electrical consumption	100% kW	1,85	2,74	3,29	4,20	5,47	7,14
A35/W7	Total electrical consumption	100% kW	1,99	3,07	3,63	4,64	5,83	7,66	
	EER		3,79	3,56	3,53	3,64	4,13	3,71	
	Heating plant								
	Water mass flow	m3/h	1,30	1,89	2,21	2,91	4,14	4,89	
	Available head	mca	4,3	3,2	4,7	6,0	3,5	8,5	
	Compressor type		Twin Rotary						
Number of compressors	n°	1	1	1	1	1	1		
Refrigerant type		R410a							
Refrigerant charge	Kg	2,2	4,65	6,36	6,6	10,7	11		
Fans	n°	1	1	1	1	2	2		
Air flow	m3/h	4000	5500	7800	8700	10000	13000		
Available head	Pa	8,00	16,00	25,50	10,00	9,81	4,90		
Power consumption	kW	0,08	0,20	0,20	0,30	0,22	0,22		
Power supply	V/Ph/Hz	230-50	230-50	230-50	400-3-50	400-3-50	400-3-50		
Hydraulic connections diameters	inches	1"	1"	1"1/4	1"1/4	1"1/2	1"1/2		
Sound pressure 1m far	dB(A)	57	60	61	63	61	62		
Dimensions	L x H x P	1130x655x500	1130x1320x500	1530x1320x500	1530x1320x500	1800x1680x600	1800x1680x600		
Units weight	Kg	140	215	247	257	329	349		

Working conditions according to standard EN 14511:

Internal circuit: radiant system

External circuit: external air 7°C with 85% U.R.

Working conditions according to standard EN 14511

Internal circuit: radiant system

External circuit: external air 7°C with 85% U.R.

Working conditions according to standard EN 14511

Internal circuit: radiant system

External circuit: external air 7°C with 85% U.R.

Working conditions according to standard EN 14511

Internal circuit: radiant system

External circuit: external air 7°C with 85% U.R.

A7/W35

°C 30/35 In-Out

°C 30/35 In-Out

A7/W45

°C 40/45 In-Out

°C 7°C 85% In-Out

A35/18

°C 23/18 In-Out

°C 35°C 50% In-Out

A35/W7

°C 12/7 In-Out

°C 35°C 50% In-Out

Thermics

Hvac high technology

Thermics is a small-medium enterprise (SME) with dedicated engineering and production teams. Internal knowhow covers thermo-technical and software abilities. Key to our success is teamwork, respect and passion for renewable technology, which make us agile company adapting the latest technologies and standard.



Heat pumps

The heat pumps produced by Thermics companies are among the most advanced and Hightech machines in the industry. Particular attention is paid to the software, which is fully designed and created within the company, developed in order to adapt to specific environments with a view to ensuring maximum performance.

Thermal solar

The technologies used in the solar heating and cooling systems provided by Thermics have been progressively consolidated over the years, and guarantee maximum efficiency and adaptability of installations.

The company owns a number of patents, and all of these meet Solar Key Mark certifications.

Innovation in ventilation

-Mechanical ventilation units boasting high-quality engineering with thermodynamic heat recovery and inverter compressors.

-Maximum energy efficiency in domestic and commercial ventilation environments thanks to the total modulation of fans and refrigerator circuits that enable the full energy needs of customers to be met.

-Comprehensive air management and treatment, from renewal to air conditioning to dehumidification, for high living comfort.

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