



energy solutions

AIR SOURCE HEAT PUMPS DUAL CLIMA

www.optimum.uk.com



COMPACT MONOBLOC HEAT PUMP
COMPLETE INSTALLATION SOLUTION PACK (HEATING, COOLING AND DHW)
FULLY RATED HEATING CAPACITY GUARANTEED TO -20°C
CAN BE COMBINED WITH OTHER ENERGIES (SOLAR, GAS, OIL)
SIZES: 8, 11 and 16 kW







Savings of up to 70% of total consumption in your energy bill



SAVINGS

Air source reduces the total energy consumption of the home by up to 70%, thanks to the use of free air energy.

This saving in consumption is maintained even when temperatures are below 0°C.



MULTIPURPOSE

Central heating, hot water and cooling functions are available.



ENVIRONMENTALLY FRIENDLY

Air source is a clean technology that respects the environment. It does not emit combustion gases since it does not need to burn anything to bring heat to the heating installation or domestic hot water.



SAFETY

It is a much safer system and requires less maintenance than those that need to exchange cooling gas inside the house.



DUAL CLIMA 16



OPERATION

The heat obtained is exchanged in the condenser, transferring it to the heat-transferring fluid, which is responsible for supplying and/or domestic hot water.



EFFICIENCY

DUAL CLIMA air source heat pumps are equipped with a DC Inverter compressor which is quiet, robust, high efficiency compressor that can modulate the thermal power according to the needs of the house.

Due to the power setting, the on / off cycles are reduced, ensuring greater reliability of the system. As a result, unnecessary consumption is reduced and user comfort is improved.

The DUAL CLIMA range has a system that reduces losses caused by the accumulation of ice in the evaporator. Before the cooling liquid passes through the distributor, it flows through the bottom of the evaporator preventing ice from forming in this area.



WIDE RANGE OF PACKS

DOMUSA TEKNIK offers a wide range of packs that are completed with all types of buffer tanks and DHW tanks.

These tanks are made of stainless steel and have a 10 years commercial corrosion warranty.

The design of the tanks is for specific use with a heat pump, with a large heat exchange surface, and with the possibility of being installed with boilers that use other types of fuels.

The installation solutions offered with the DUAL CLIMA air source heat pump are designed to achieve efficient, durable and reliable installations.

DUAL CLIMA's energy certification is considered as one of the best in its category

DUAL CLIMA 8
DUAL CLIMA 11

DUAL CLIMA 16







DUAL CLIMA 11

Comfort at your fingertips

Configure the installation that suits your needs.





EASE OF USE

Reduced maintenance

MONOBLOC technology, in which the entire gas circuit is integrated into the outdoor unit, reduces the risk of cooling gas leaks, thus avoiding gas recharge operations.

In addition, by using electricity as a power source, the maintenance required in the combustion of fossil fuels is avoided, both in the combustion chamber and in the exhaust gas outlet.

Electronic control inside the home

The control board of the DUAL CLIMA air source heat pump is installed inside the home, from which you have complete control of all the components of the system, with an easy and intuitive use.

Quiet night operation mode

Night operation mode reduces fan noise levels during the night hours programmed in the system.

Controls for easy and intuitive use



MONOBLOC SYSTEM

With MONOBLOC technology only hydraulic connections are made, which simplifies the installation

The gas/water exchanger is incorporated in the outdoor unit, thus avoiding the necessity to manipulate the cooling circuit in the installation process. The connection between the outdoor and indoor units is hydraulic, making the installation simpler and allowing a greater distance between the than if cooling gas was used as a heat-transferring fluid.



EASE OF INSTALLATION

60° C flow temperature

The high flow temperatures, allows the use of the $\mbox{\scriptsize DUAL}$ CLIMA heat pump even with radiators.

Protection against hydraulic component frost

The electronic control of the heat pump activates the circulation pump and the compressor if necessary, in order to prevent the water from falling below freezing point.

To avoid freezing against prolonged power cuts, two solutions are offered:

- · Anti frost valve that drains the water circuit in the event that water temperatures drop to freezing point.
- · Corrosion Inhibitor/Anti-freeze is added to the system.

Plug and play solutions

DOMUSA TEKNIK offers a wide range of packs that allow the configuration of any kind of heating, DHW or cooling installation.

Among this range of packs, you can find simple solutions such as electrical back-up kits, or more complete solutions including buffer tanks with circuit separation which allows the combination of heat pumps with back-up boilers.



Air source heat pump for heating with electrical back-up.

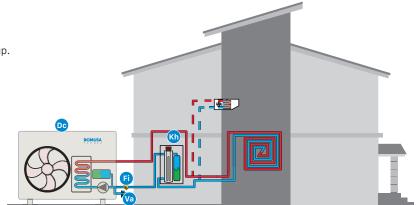
COMPONENTS





Hydraulic kit

Dc	Dual Clima heat pump	Included
Kh	Back-up hydraulic kit	Included
Fi	1" Water filter	Included
Va	Frost protection valve	Ontional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation

MODEL	COMPOSITION		
PACK 1 DUAL CLIMA 8			
PACK 1 DUAL CLIMA 11	Back-up hydraulic kit	1" Water filter	
PACK 1 DUAL CLIMA 16			

PACK 2 DUAL CLIMA

Heating and cooling with an air source heat pump and a separator and circuit balancing buffer tank, allows the installation with a back-up boiler for heating.

COMPONENTS

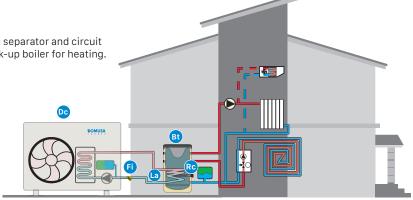






BTS tank

Dc	Dual Clima heat PUMP	Included
Bt	BTS tank	Included
La	Antifreeze liquid	Included
Fi	1" Water filter	Included
Rc	Electric heating element for DHW tank	Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation

MODEL	COMPOSITION			
PACK 2 DUAL CLIMA 8	DT0 400			
PACK 2 DUAL CLIMA 11	CK 2 DUAL CLIMA 11		1" Water filter	
PACK 2 DUAL CLIMA 16	BTS 150			

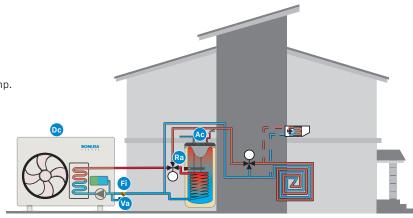
PACK 3 DUAL CLIMA

Heating, DHW and cooling with an air source heat pump.

COMPONENTS



Dc	DUAL CLIMA heat pump	Included
Ac	SANIT HE DHW tank	Included
Fi	1" Water filter	Included
Ra	Electric heating element for DHW tank	Optional
Va	Frost protection valve	Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation.

MODEL	СОМРО	SITION
PACK 3 DUAL CLIMA 8/150	SANIT HE 150	
PACK 3 DUAL CLIMA 8/200		
PACK 3 DUAL CLIMA 11/200	SANIT HE 200	1" Water filter
PACK 3 DUAL CLIMA 16/200		
PACK 3 DUAL CLIMA 16/300	SANIT HE 300	

PACK 4 DUAL CLIMA

Heating, cooling and DHW with an air source heat pump with electric back-up.

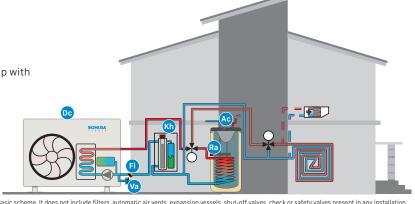
COMPONENTS







Dc DUAL CLIMA heat pump Included SANIT HE DHW tank Included Kh HP Hydraulic kit Included Fi 1" Water filter Included Va Frost protection valve Optional Ra Electric heating element for DHW tank Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation.

MODEL	COMPOSITION		
PACK 4 DUAL CLIMA 8/150	SANIT HE 150		HP Hydraulic kit
PACK 4 DUAL CLIMA 8/200			
PACK 4 DUAL CLIMA 11/200	SANIT HE 200	1" Water filter	
PACK 4 DUAL CLIMA 16/200			
PACK 4 DUAL CLIMA 16/300	SANIT HE 300		

PACK 5 DUAL CLIMA

Heating and DHW with an air source heat pump. It allows a combination of a back-up boiler.

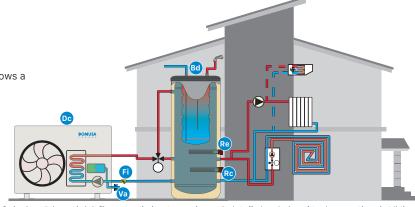
COMPONENTS





BT DUO HE Monobloc air source

Dc	DUAL CLIMA heat pump	Included
Bd	BT DUO HE buffer tank	Included
Fi	1" Water filter	Included
Ra	Eletric heating element for DMW tank	Optional
Rc	Electric heating element for heating	Optional
Va	Frost protection valve	Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation.

MODEL	COMPOSITION		
PACK 5 DUAL CLIMA 8			
PACK 5 DUAL CLIMA 11	BT DUO HE buffer tank 180/60	1" Water filter	
PACK 5 DUAL CLIMA 16			

PACK 6 DUAL CLIMA

Heating, cooling and DHW with an air source heat pump, DHW tank and circuit balancing unit. Allows the use of a back-up boiler for heating.

COMPONENTS



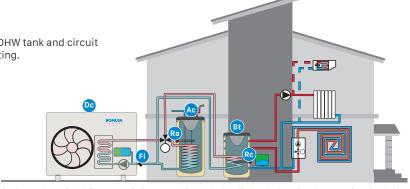








Bt BTS tank Included Ac SANIT HE DHW tank Included La Antifreeze liquid Included Fi 1" Water filter Included Ra Eletric heating element for DMW tank Optional Rc Electric heating element for heating Optional	Dc	DUAL CLIMA heat pump	Included
La Antifreeze liquid Included Fi 1" Water filter Included Ra Eletric heating element for DMW tank Optional	Bt	BTS tank	Included
Fi 1" Water filter Included Ra Eletric heating element for DMW tank Optional	Ac	SANIT HE DHW tank	Included
Ra Eletric heating element for DMW tank Optional	La	Antifreeze liquid	Included
	Fi	1" Water filter	Included
Rc Electric heating element for heating Optional	Ra	Eletric heating element for DMW tank	Optional
	Rc	Electric heating element for heating	Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation.

MODEL	COMPOSITION			
PACK 6 DUAL CLIMA 8/100	BTS tank 100	SANIT HE 150		
PACK 6 DUAL CLIMA 8/200	BTS tank 100	SANIT HE 200		Antifreeze liquid
PACK 6 DUAL CLIMA 11/200	BTS tank 100		1" Water filter	
PACK 6 DUAL CLIMA 16/200	BTS tank 150			
PACK 6 DUAL CLIMA 16/300	BTS tank 150	SANIT HE 300		

PACK 7 DUAL CLIMA

Air source heat pump with a triple service tank: balances the installation, DHW and heating, DHW and cooling. Allows the use of a back-up boiler for heating.

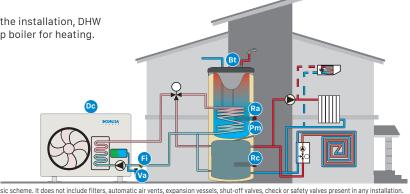
COMPONENTS







Dc	DUAL CLIMA heat pump	Included
Bt	BTS tank	Included
Pm	Manual air vent	Included
Fi	1" Water filter	Included
Ra	Eletric heating element for DMW tank	Optional
Rc	Electric heating element for heating	Optional
Va	Frost protection valve	Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation.

MODEL	COMPOSITION			
PACK 7 DUAL CLIMA 8	BT TRIO 200/50			
PACK 7 DUAL CLIMA 11	BT TRIO 200/80	1" Water filter		
PACK 7 DUAL CLIMA 16	BT TRIO 200/80			

PACK 8 DUAL CLIMA

Heating, cooling and DHW with an Air source heat pump with balancing circuit separation buffer and double exchange DHW tank. Allows the use of a back-up boiler.

COMPONENTS



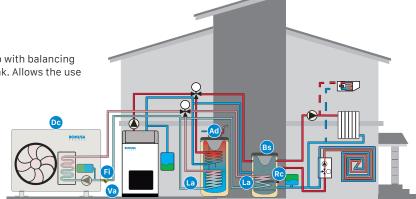








Dc	DUAL CLIMA heat pump	Included
Ad	SANIT HE DHW tank DS	Included
Bs	BTS tank	Included
La	Antifreeze liquid	Included
Fi	1" Water filter	Included
Rc	Electric heating element for DHW tank	Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation.

MODEL	COMPOSITION			
PACK 8 DUAL CLIMA 8/200		BTS 100		
PACK 8 DUAL CLIMA 11/200	SANIT HE 200 DS	B13 100	1" Water filter	
PACK 8 DUAL CLIMA 16/200		BTS 150	i water iliter	
PACK 8 DUAL CLIMA 16/300	SANIT HE 300 DS	B15 150		

PACK 9 DUAL CLIMA

Heating and cooling with an Air Source Heat Pump and buff er tank.

COMPONENTS

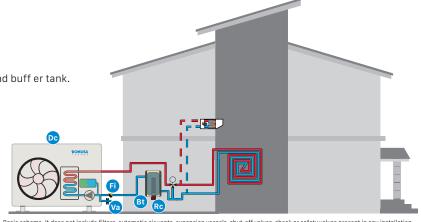




Monobloc air source



Dc DUAL CLIMA heat pump Included Bt BT50 tank Included Fi 1" Water filter Included Frost protection valve Optional Electric heating element for DHW tank Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation

MODEL	COMPOSITION			
PACK 9 DUAL CLIMA 8				
PACK 9 DUAL CLIMA 11	BT 50	1" water filter		
PACK 9 DUAL CLIMA 16				

PACK 10 DUAL CLIMA

Air to water heat pump with pre plumbed module for heating, DHW and cooling.

COMPONENTS

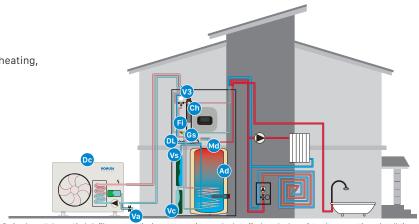






FUSION HE

Dc	DUAL CLIMA heat pump	Included
Gs	DHW inlet safety group	Included
Md	Dielectric sleeves	Included
Vs	DHW expansion vessel	Included
Ad	Stainless steel DHW cylinder	Included
DL	Filling loop	Included
٧3	Three way valve	Included
Fi	1" Water filter	Included
Ch	Back-up drum	Included
Vc	Heating circuit expansion vessel	Optional
Va	Frost protection valve	Optional
	Back up hydraulic pump kit	Optional



Basic scheme. It does not include filters, automatic air vents, expansion vessels, shut-off valves, check or safety valves present in any installation.

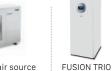
MODEL	COMPOSITION			
PACK 10 DUAL CLIMA 8/150	FUSION HE 150	DUAL CLIMA 8		
PACK 10 DUAL CLIMA 11/150	FUSION HE 150	DUAL CLIMA 11		
PACK 10 DUAL CLIMA 8/200	FUSION HE 200	DUAL CLIMA 8		
PACK 10 DUAL CLIMA 11/200	FUSION HE 200	DUAL CLIMA 11		
PACK 10 DUAL CLIMA 16/200	FUSION HE 200	DUAL CLIMA 16		
PACK 10 DUAL CLIMA 11/300	FUSION HE 300	DUAL CLIMA 11		
PACK 10 DUAL CLIMA 16/300	FUSION HE 300	DUAL CLIMA 16		

PACK 11 DUAL CLIMA

Air to water heat pump with pre plumbed module for DHW, heating and cooling with an integrated buffer tank. Allows the combination with a back-up boiler for heating.

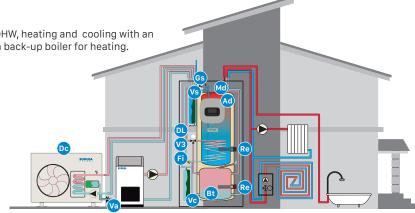
COMPONENTS





Monobloc air source

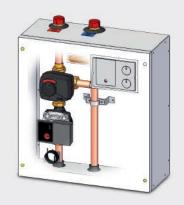
Dc	DUAL CLIMA heat pump	Included
Gs	DHW inlet safety group	Included
Md	Dielectric sleeves	Included
Vs	DHW expansion vessel	Included
Ad	Stainless steel DHW cylinder	Included
DL	Filling loop	Included
٧3	Three way valve	Included
Fi	1" Water filter	Included
Bt	Buffer tank	Included
Vc	Heating circuit expansion vessel	Included
Va	Frost protection valve	Optional
Re	Back-up electric element kit	Optional
	Back up hydraulic pump kit	



 $Basic \ scheme. \ It \ does \ not \ include \ filters, \ automatic \ air \ vents, \ expansion \ vessels, \ shut-off \ valves, \ check \ or \ safety \ valves \ present \ in \ any \ installation.$

MODEL	COMPOSITION				
PACK 11 DUAL CLIMA 8/50	FUSION TRIO 200/50	DUAL CLIMA 8			
PACK 11 DUAL CLIMA 11/50	FUSION TRIO 200/50	DUAL CLIMA 11			
PACK 11 DUAL CLIMA 16/50	FUSION TRIO 200/50	DUAL CLIMA 16			
PACK 11 DUAL CLIMA 11/80	FUSION TRIO 200/80	DUAL CLIMA 11			
PACK 11 DUAL CLIMA 16/80	FUSION TRIO 200/80	DUAL CLIMA 16			

Hydraulic accesories for heat pumps

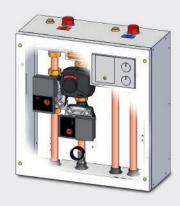


Kit BT M



Mixed circuit





Kit BT DM



Mixed circuit



Direct circuit



Weather compensation system



Kit BT 2M



Mixed circuit





Weather compensation system



Kit BT 2MS



Mixed circuit



Direct circuit



DHW



Weather compensation system

HYDRAULIC MODULE FOR HEAT PUMP

HP HYDRAULIC KIT

INTEGRATED EXPANSION VESSEL

2,5 kW BACK UP ELECTRIC HEATING ELEMENT

SPECIFICATIONS

MODEL	ELECTRIC HEATING ELEMENT POWER	DIMENSIONS mm			
	kW	HEIGHT	WIDTH	DEPTH	
HP HYDRAULIC KIT	2,5	710 365		230	



PRE PLUMBED HYDRAULIC MODULE

FUSION HE

INTEGRATED HYDRAULIC MODULE STAINLESS STEEL DHW CYLINDER







SPECIFICATIONS

MODEL	DHW VOLUME	APLICATION		DIMENSIONS		EXCHANGE SURFACE	
	L		WIDTH	HEIGHT	DEPTH	m ²	
FUSION HE 150	150	Heating,	600	1,500	600	2.25	
FUSION HE 200	200	cooling and	600	1,900	600	2.50	
FUSION HE 300	300	DHW	600	1,870	650	3.10	

ENERGY EFFICIENCY CLASS



OPTIONS integrable within the module)

Fusion HE heating circuit expansion vessel kit

Fusion HE back-up pump kit

Fusion 1,5 kw electric heating element

Fusion 2,5 kw electric heating element

Fusion 3,5 kw electric heating element

EQUIPMENT			
DHW inlet safety group	Stainless steel DHW cylinder	1" Water filter	
Dielectric sleeves	Filling loop	Back up drum	
DHW expansion vessel	Three way valve		

PRE PLUMBED HYDRAULIC MODULE

FUSION TRIO

INTEGRATED BUFFER TANK

STAINLESS STEEL DHW CYLINDER





SPECIFICATIONS

FULLY EQUIPPED

MODEL	DHW VOLUME	PRIMARY VOLUME	APLICATION	DIMENSIONS		EXCHANGE SURFACE	ENERGY EFFICIENCY	
	_	L		WIDTH	HEIGHT	DEPTH	m ²	CLASS
FUSION TRIO 200/50	200	50	Heating,	600	1,910	650	2.25	C
FUSION TRIO 200/80	200	80	cooling and DHW	600	1,960	650	2.50	

OPTIONS

Fusion 1,5 kw electric heating element

Fusion 2,5 kw electric heating element

Fusion 2,5 kw electric heating element

EQUIPMENT		
DHW inlet safety group	Stainless steel DHW cylinder	1" Water filter
Dielectric sleeves	Filling loop	Buffer tank
DHW expansion vessel	Three way valve	Heating expansion vessel





BUFFER TANK

BT 50

PRIMARY CIRCUIT TANK

FOR HEATING AND COOLING

CAPACITY: 50 L



SPECIFICATIONS

MODEL	DIMENSIONS mm		ENERGY EFFICIENCY CLASS
	HEIGHT DIAMETER		
BT 50	586	530	C

BUFFER TANK WITH SEPARATOR

BTS 100-150

PRIMARY CIRCUIT TANK
FOR HEATING AND COOLING

CAPACITY: 100 AND 150 L





MODEL	DEL DIMENSIONS mm HEIGHT DIAMETER		ENERGY EFFICIENCY CLASS	EXCHANGE SURFACE m²	
BTS 100	852	581		1.9	
BTS 150	1,132 581		C	2.4	



BUFFER TANK

BT DUO HE

PRIMARY CIRCUIT AND DHW ACCUMULATION

FOR HEATING

CAPACITY: 180/60 L





SPECIFICATIONS

MODEL*	PRIMARY DHW VOLUME VOLUME L	APLICATION	DIMENSIONS mm		ENERGY EFFICIENCY CLASS	
	-	L		DIMENSIONS	HEIGHT	02/100
BT DUO HE 180/60	60	180	Heating and DHW	581	1,740	C





BUFFER TANK

BT TRIO

PRIMARY AND DHW ACCUMULATION

FOR HEATING AND COOLING WITH STAINLESS STEEL TANK





CAPACITYES: 200/50 - 200/80 L

SPECIFICATIONS

MODEL*	PRIMARY VOLUME	DHW VOLUME	APLICATION	DIMENSIONS mm		ENERGY EFFICIENCY CLASS	EXCHANGE SURFACE m ²
	_	_		DIMENSIONS	HEIGHT	CLASS	111
BT TRIO 200/50	50	200	Heating, cooling and	608	1,718	C	2.5
BT TRIO 200/80	80	200	DHW	608	1,790	C	2.5

DHW CYLINDERS FOR HEAT PUMPS

SANIT HE

STAINLESS STEEL CYLINDER

SINGLE COIL

CAPACITYES: 150 - 200 - 300 L





SPECIFICATIONS

MODEL	VOLUME L	APLICATION	DIMENS mm		ENERGY EFFICIENCY CLASS	EXCHANGE SURFACE m ²
			DIMENSIONS	HEIGHT	CLASS	""
SANIT HE 150	150		581	1,227	В	2.25
SANIT HE 200	200	DHW	581	1,563	В	2.5
SANIT HE 300	300		581	1,790	C	3.1



DHW CYLINDERS FOR HEAT PUMPS

SANIT HE DS

STAINLESS STEEL TANK

TWIN COIL

CAPACITYES: 200 - 300 L





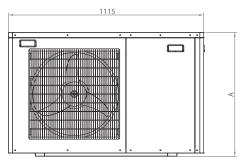
SPECIFICATIONS

MODEL	VOLUME L	APLICATION	DIMENSIONS mm		ENERGY EFFICIENCY	EXCHANGE SURFACE
			DIMENSIONS	HEIGHT	CLASS	m²
SANIT HE 200 DS	200	DHW	581	1,563	В	2.5 + 0,6
SANIT HE 300 DS	300	double exchange	608	1,790	C	3.1 + 0,6

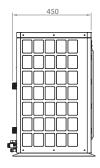


TECHNICAL CHARACTERISTICS

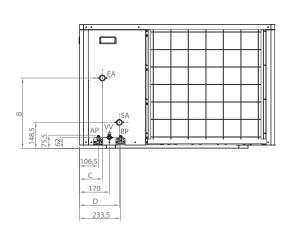
DIMENSIONS



	Α	В	С	D
DUAL CLIMA 8	710	402	130	230
DUAL CLIMA 11	970	419	230	130
DUAL CLIMA 16	1,270	419	230	130



EA: Water inlet SA: Water outlet VV: Empty valve AP: High pressure valve BP: Low pressure valve



MAIN CHARACTERISTICS		DUAL CLIMA 8	DUAL CLIMA 11	DUAL CLIMA 16	
η_s Seasonal efficiency	%	163	170	176	
SCOP		4.16	4.32	4.48	
SEER		4.10	3.40	3.90	
COP (T. aire 7°C, T. agua 30/35-EN14511)		4.59	4.24	4.50	
Energy efficiency class		Α	++	A+++	
Heating output (Air T. 7°C, Water T. 30/35-EN14511)	kW	7.80	10.30	15.50	
Cooling output (Air T. 7oC, Water T. 30/35-EN14511)	kW	8.40	9.45	15.70	
Ingress protection		IPX 4			
Heat Pump Type		Air to Water, Inverter, Monobloc			
Use			Heating, Cooling and DHW		
Cooling			R410A		
Load	kg	2.30	3.30	3.90	
Voltage	V		230V/50Hz		
Maximum absorbed cooling power	kW	1.70	2.50	3.44	
Maximum absorbed heating power	kW	2.25	3.05	4.40	
Sound pressure level (LP)	db(A)	46	49	52	
Max. flow temperature	°C	60			
Working temperature range	°C	-20/46			
Nominal working flow	m³/h	1.50	1.85	2.80	
Weight	kg	90	125	150	

OPTIONS
1" water filter
HP hydraulic kit
1,5 kW electric heating element
2,5 kW electric heating element
3,5 kW electric heating element
Antifreeze liquid (5L)
Room sensor
Frost protection valve
MYDOMO WiFi remote control
Fusion HE heating circuit expansion vessel kit
Fusion HE back-up pump kit
Fusion 1,5 kw electric heating element



EQUIPMENT	
DC Inverter air source heat pump	
High efficiency pump	
Heating circuit expansion vessel	
Control unit	
Flow limiter	
Water pressure gauge	





Fusion 2,5 kw electric heating element Fusion 3,5 kw electric heating element

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