

Technical catalogue

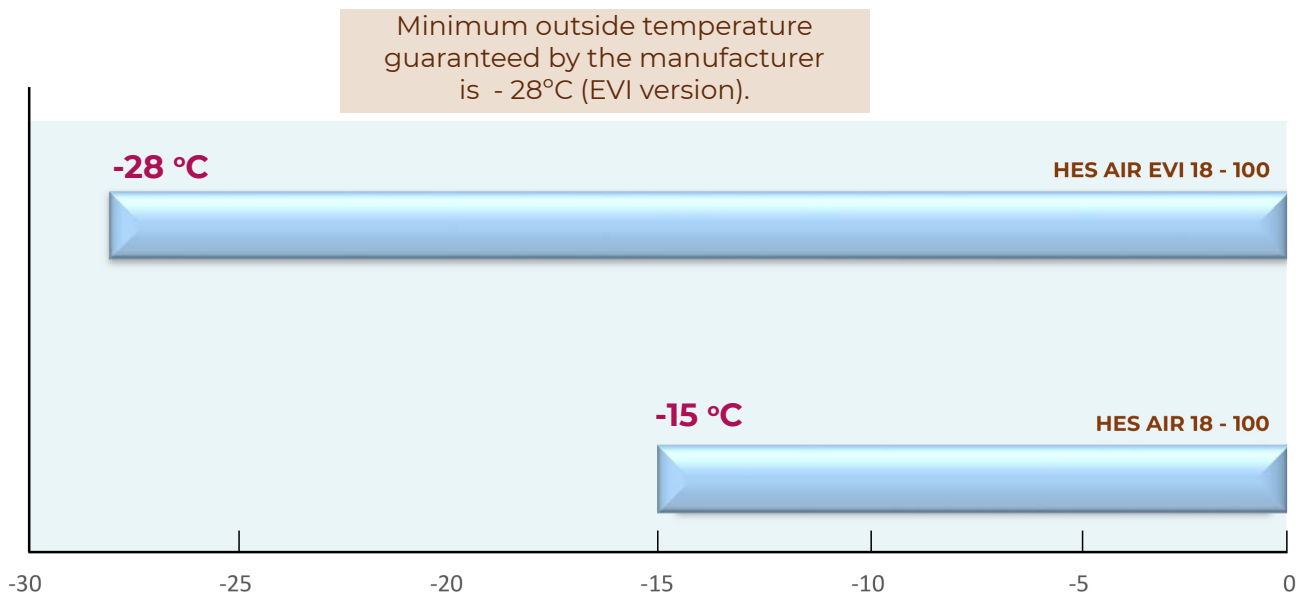
# Climate control equipment

Industrial Air Conditioners  
(EVI series)

2024

## HES HEAT PUMPS WITH INVERTER (EVI VERSION)

Home Electro System LLC presents its heat pumps of EVI series. It is known that the performance of standard air conditioners drops sharply when the air temperature decreases. And this drop is quite significant. At a temperature of  $-20^{\circ}\text{C}$ , the heating capacity is 40% less than the declared value, which is indicated in the specifications of the devices and is measured at a temperature of  $+7^{\circ}\text{C}$ . It is for this reason that air conditioners are not considered in countries with cold winters as a full-fledged heating device. The attitude towards them has changed radically thanks to heat pumps with EVI technology. They are distinguished by stable operation at temperatures of down to  $-28^{\circ}\text{C}$ .



The heating capacity of the EVI series systems retains the nominal value down to outside temperature of  $-15^{\circ}\text{C}$ . With a further drop in temperature (the manufacturer guarantees the operation of its outdoor units down to a temperature of  $-28^{\circ}\text{C}$ ), heat capacity begins to decrease. But at the same time, the advantage over standard air conditioning systems remains.

### **The EVI system ensures comfortable heating of your space.**

The control algorithm allows to save energy under difficult operating conditions. For example, when starting in a cold room. Another mode, in which the maximum performance is important, is the defrosting mode of the outdoor heat exchanger (evaporator). Defrosting goes fast and unnoticeable for the user.

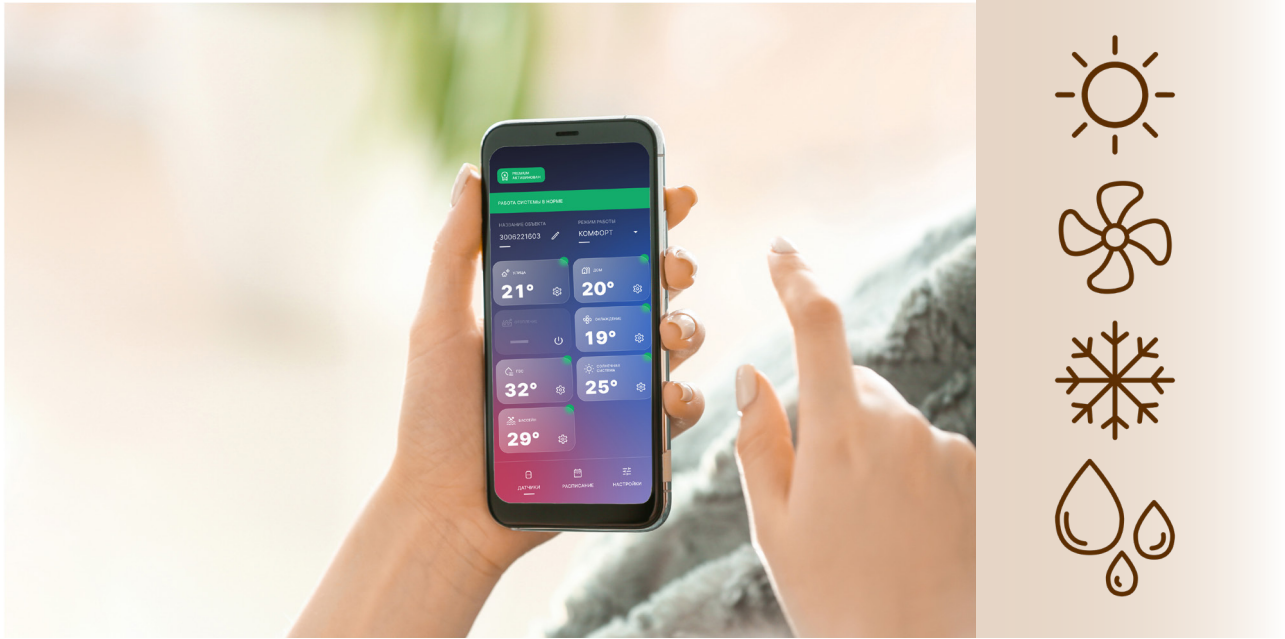
**HES AIR SOURCE HEAT PUMP CONTROLLER** is designed to control air conditioning systems in residential, commercial, office and industrial buildings.



The controller maintains control over the multifunctional systems with the option of selecting both: separate units and all the units at once:

- ▶ Heating mode;
- ▶ Cooling mode;
- ▶ Ventilation mode;
- ▶ Smart mode of controlling indoor space dehumidification;
- ▶ Control of up to 128 units cascade;
- ▶ IR remote control for each internal unit;
- ▶ Additional function of fresh air mixing;
- ▶ Central display unit for dispatching control.

The controller allows for the most effective resources consumption to improve the coefficient of the system efficiency.



Control from around the world:

- ▶ Remote diagnostics and monitoring of heat pump technical conditions and its performance parameters using iOS and Android applications;
- ▶ Data storage on event server;
- ▶ Charts for systems operation analysis and optimization.

## WALL MOUNTED SPLIT SYSTEMS

**Wall-mounted split system** is a classic air conditioning system consisting of two units: internal and external. This type of air conditioner is used to maintain an optimal microclimate in the room. Wall-mounted air conditioners are widely used in apartments, offices and small administrative buildings.

Average area of operation is from 17 to 100 m<sup>2</sup>.

### Advantages of wall-mounted split systems:

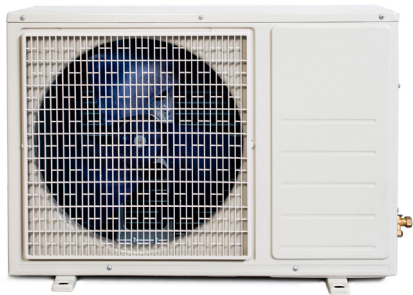
- ▶ External unit is located outside;
- ▶ Easy mounting and servicing;



- ▶ Reasonable price;
- ▶ High efficiency with low electricity consumption;
- ▶ Safety;
- ▶ Possibility of mounting on any wall;
- ▶ Simple and convenient air flow control;
- ▶ Low noise level compared with other types of air conditioners.



## HES AIR EVI W WALL MOUNTED SPLIT SYSTEMS



### External units



### Internal units

The split system is used for space cooling and heating.

The external unit is equipped with a new generation inverter compressor with DC motor, a phase relay, a starting current load relief, a condenser, an evaporator and safety actuators – high and low pressure relay.

Availability of clock/calendar function and day/night mode allows to more precisely maintain indoor temperature and save resources.

### DEVICE PARAMETERS

- ▶ Refrigerant R32;
- ▶ Reduced power consumption, precise temperature control, long service life;
- ▶ System operating economy can be over 15%;
- ▶ Sustainable heating/cooling function under any climatic conditions down to - 28 °C;
- ▶ Built-in Wi-Fi interface;
- ▶ Modern ergonomic design of internal unit;
- ▶ Standardized connection dimensions;
- ▶ Automatic restart;
- ▶ Remote control unit provided;
- ▶ High energy performance: seasonal energy efficiency class “A++”;
- ▶ Internal units are completed with antibacterial and antiviral filter with silver ions;
- ▶ “Frost protect” mode allows for energy-conserving background heating – minimum indoor temperature may be +10°C.

Model		HES AIR EVI W						
		5 kW	7 kW	10 kW	13 kW	13 kW	16 kW	
Internal		HES-AIR-EVI-i-18-W-4	HES-AIR-EVI-i-24-W-4	HES-AIR-EVI-i-36-W-4	HES-AIR-EVI-i-48-W-4	HES-AIR-EVI-i-60-W-4	HES-AIR-EVI-i-100-W-4	
External		HES-AIR-EVI-i-18-A-N-4	HES-AIR-EVI-i-24-A-N-4	HES-AIR-EVI-i-36-A-N-6	HES-AIR-EVI-i-48-A-N-6	HES-AIR-EVI-i-60-A-N-6	HES-AIR-EVI-i-100-A-N-6	
Power supply	V-Ph-Hz	220~240-1-50	220-1-50	220-240-1-50	380-415-3-50	380-415-3-50	380-415-3-50	
Maximum demanded power	W	1500	1500	2200	2200	2800	3300	
Maximum current consumption	A	12,0	25	26,5	10	12	14	
Cooling	Capacity	W	5000	7000	10880	13800	17000	20000
	Capacity	BTU/h	17060	23884	34163	34163	40846	53414
	Demanded power	W	1720	1800	2000	2200	2800	3300
	Current consumption	A	14	17,9	21,8	4,96	7,52	9
	EER	W/W	2,91	2,91	2,91	2,99	2,91	2,91
Heating	Capacity	W	6750	8800	12800	15000	19800	23300
	Capacity	BTU/h	18083	38385	47529	36363	41627	63783
	Demanded power	W	1670	3100	2200	2200	2200	3300
	Current consumption	A	15,0	18,5	22,4	6	8	10,1
	COP	W/W	3,41	2,99	2,99	2,99	3,16	3,27
Air volume (High/Med/Low)	m <sup>3</sup> /h	388-724	742-1186	814-1186	982-1306	982-1506	982-1706	
Internal unit noise level (High/Med/Low)	dB(A)	33/40/44	38/42/45	38/42/45	38/42/45	38/42/45	38/42/45	
Internal unit	Dimensions (WxDxH)	mm	798×232×295	798×232×295	1100×238×325	1100×238×325	1100×238×325	1100×238×325
	Package (WxDxH)	mm	900×300×400	900×300×400	1200×350×450	1200×350×450	1200×350×450	1200×350×450
	Net/Gross weight	kg	9	9	16	16	16	19
Dia of drainage duct	mm	Ø20						
Controller	Remote control							
Compressor	Model		ANB33FNCMT	ANB33FNCMT	ANB33FJMMT	MNB36FABMC	MNB42FDAMC	ANB52FKFMT
	Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Brand		Mitsubishi Electric	Mitsubishi Electric	Mitsubishi Electric	Mitsubishi Electric	Mitsubishi Electric	Mitsubishi Electric
External unit noise level	dB(A)	54	62	57	57	58	63	
External unit	Dimensions (WxDxH)	mm	800×348×715	800×348×715	800×348×715	800×348×715	1050×1349×330	1120×1510×400
	Package (WxDxH)	mm	1050×500×890	1050×500×890	1050×500×890	1050×500×890	1110×1530×460	1300×1710×600
	Net/Gross weight	kg	42/45	67/71	72.5/77	72.5/77	106/116	176/191
Refrigerant	Type		R32					
	Filling volume	kg	1,30	2,60	2,5	2,5	3,10	3.7x2
Refrigerant tubes	Liquid/Gas	mm (inch)	Ø6.35/ Ø9.52(1/4'/3/8')	Ø9.52/ Ø12.7(3/8'/1/2')	Ø9.52/ Ø12.7(3/8'/1/2')	Ø9.52/ Ø12.7(3/8'/1/2')	Ø9.52/ Ø15.88(3/8'/5/8')	Ø9.52/ Ø19.05(3/8'/3/4')
	Maximum length	m	25	40	65	65	60	50
	Maximum height difference	m	15	20	30	30	30	20
Temperature	Cooling	°C	-7 +43					
	Heating	°C	-28 +30					

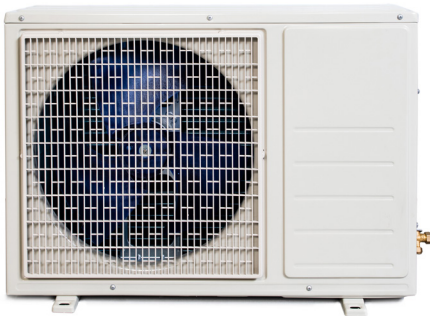
## DUCTED SPLIT SYSTEMS

### PRINCIPLE OF OPERATION

The internal unit of the ducted air conditioner may be equipped with additional noise insulation of the body. It is mounted in the finished ceiling. Due to this the sound pressure (noise) level is considerably less in comparison with other types of split systems.

The split systems are classed as semi-industrial equipment for air conditioning. Besides cooling and heating, they also purify the air.

One of the advanced functions is fresh air mixing. It should be noted that not all ducted air conditioners are capable to ensure the fresh air intake. It is because a ducted air conditioner is, first of all, intended for operation in the recirculation mode.



**External units  
of ducted air  
conditioners**





The volume (amount) of the fresh air intake to the internal unit is defined as per specified design requirements depending on particular characteristics and purpose.

Normally it makes 15% of the air output volume.

Thus, the semi-industrial ducted air conditioners provide instant freshness and purity of the indoor air coming in filtered and free of dust and bacteria.

## HES AIR EVI D DUCTED SPLIT SYSTEMS



### External units



### Internal units

The split system is used for space cooling and heating.

The external unit is equipped with a new generation inverter compressor with DC motor, a phase relay, a starting current load relief, a condenser, an evaporator and safety actuators – high and low pressure relay.

Availability of clock/calendar function and day/night mode allows to more precisely maintain indoor temperature and save resources.

**DEVICE PARAMETERS**

- ▶ Refrigerant R32;
- ▶ Reduced power consumption, precise temperature control, long service life;
- ▶ System operating economy can be over 15%;
- ▶ Sustainable heating/cooling function under any climatic conditions down to - 28 °C;
- ▶ Built-in Wi-Fi interface;
- ▶ Modern ergonomic design of internal unit;
- ▶ Standardized connection dimensions;
- ▶ Automatic restart;
- ▶ Remote control unit provided;
- ▶ High energy performance: seasonal energy efficiency class “A++”;
- ▶ Internal units are completed with antibacterial and antiviral filter with silver ions;
- ▶ “Frost protect” mode allows for energy-conserving background heating – minimum indoor temperature may be +10°C.

Model		HES AIR EVI D				
		5 kW	7 kW	10 kW	13 kW	
Internal		HES-AIR-EVI-i-18-D-4	HES-AIR-EVI-i-24-D-4	HES-AIR-EVI-i-36-D-4	HES-AIR-EVI-i-36-D-4	
External		HES-AIR-EVI-i-18-A-N-4	HES-AIR-EVI-i-24-A-N-4	HES-AIR-EVI-i-36-A-N-4	HES-AIR-EVI-i-36-A-N-6	
Power supply	V-Ph-Hz	220~240-1-50			380-415-3-50	
Maximum demanded power	W	1500		2200		
Maximum current consumption	A	12	13,0	26,5	26,5	
Cooling	Capacity	W	5000	7000	10880	10880
	Capacity	BTU/h	17060	23884	34163	34163
	Demanded power	W	1720	3505	2200	2200
	Current consumption	A	7,5	6,9	21	21
	EER	W/W	2,91	3,01	2,4	2,4
Heating	Capacity	W	6500	8500	13000	13000
	Capacity	BTU/h			36363	36363
	Demanded power	W	1670	3100	2200	2200
	Current consumption	A	7,3	6,6	26	26
	COP	W/W	3,41	3,63	2,99	2,99
Air volume (High/Med/Low)	m <sup>3</sup> /h	750/670/630	1800/1650/1500	1900/1600/1400	1900/1600/1400	
External static pressure (ESP)	Nominal	Pa	10	50	37	37
	Range	Pa	10/30	50/80	0/160	0/160
Internal unit noise level (High/Med/Low)	dB(A)	38/36/35	40/38/37	44/41/39	44/41/39	
Internal unit	Dimensions (WxDxH)	mm	900×190×480	1385×350×800	1000×245×700	
	Package (WxDxH)	mm	1070×236×580	1550×410×940	1630×830×300	
	Net/Gross weight	kg	20/26	54/62	42/48	42/48
Rated pressure (High/Low)	MPa	4.1/1.6	4.1/1.6	4.1/1.6	4.1/1.6	
Dia of drainage duct	mm	∅26	∅32	∅26		
Controller		Пульт ДУ				
Compressor	Model	ANB33FNCMT	ANB33FNCMT	ANB33FJMMT	MNB33FEAMC	
	Type	Спиральный				
	Brand	Mitsubishi Electric				
External unit noise level	dB(A)	54	62	57	57	
External unit	Dimensions (WxDxH)	mm	800×285×715	840×330×880	1050×330×1350	
	Package (WxDxH)	mm	1050×500×890	1100×500×1100	1300×600×1710	
	Net/Gross weight	kg	42/45	67/71	72.5/77	72.5/77
Refrigerant	Type	R32				
	Filling volume	kg	1,30	2,60	2,5	2,5
Refrigerant tubes	Liquid/Gas	mm (inch)	∅6.35/∅9.52(1/4'/3/8')	∅9.52/∅12.7(3/8'/1/2')	∅9.52/∅12.7(3/8'/1/2')	∅9.52/∅12.7(3/8'/1/2')
	Maximum length	м	25	40	65	65
	Maximum height difference	м	15	20	30	
Temperature	Cooling	°C	-7 +43			
	Heating	°C	-28 +30			

Model		HES AIR EVI D				
		13 kW	13 kW	13 kW	16 kW	
Internal		HES-AIR-EVI-i-60-D-4	HES-AIR-EVI-i-60-D-h-4	HES-AIR-EVI-i-60-D-m-4	HES-AIR-EVI-i-60-D-4	
External		HES-AIR-EVI-i-60-A-N-6	HES-AIR-EVI-i-60-A-N-6	HES-AIR-EVI-i-60-A-N-6	HES-AIR-EVI-i-100-A-N-6	
Power supply	V-Ph-Hz	380-415-3-50	380-415-3-50	380-415-3-50	380-415-3-50	
Maximum demanded power	W	2200	2200	2200	3300	
Maximum current consumption	A	9,5	9,5	9,5	14	
Cooling	Capacity	W	13000	13000	13000	17000
	Capacity	BTU/h	40846	40846	40846	53414
	Demanded power	W	2200	2200	2200	3300
	Current consumption	A	8	8	8	13
	EER	W/W	3,14	3,14	3,14	2,64
Heating	Capacity	W	12200	12200	12200	20300
	Capacity	BTU/h	41627	41627	41627	63783
	Demanded power	W	2200	2200	2200	3300
	Current consumption	A	8	8	8	12
	COP	W/W	3,16	3,20	3,20	3,27
Air volume (High/Med/Low)	m <sup>3</sup> /h	2000/1800/1600	2000/1600/1400	2600/2300/1950	5000/4000/3600	
External static pressure (ESP)	Nominal	Pa	80	196	80	150
	Range	Pa	80/120	-	-	-
Internal unit noise level (High/Med/Low)	dB(A)	46/44/42	60/57/51	50/47/45	55	
Internal unit	Dimensions (WxDxH)	mm	1380x350x800	1200x719x380	1250x735x290	1350x700x460
	Package (WxDxH)	mm	1550x410x940	1235x760x415	1430x800x360	1540x810x610
	Net/Gross weight	kg	55/63	55/59	50/56	91/111
Rated pressure (High/Low)	MPa	4.1/1.6	4.1/1.6	4.1/1.6	4.1/1.6	
Dia of drainage duct	mm	∅32	∅25	∅25	∅32	
Controller	Remote control					
Compressor	Model	MNB33FEAMC	MNB42FDAMC	MNB42FDAMC	ANB52FKFMT	
	Type	Scroll				
	Brand	Mitsubishi Electric				
External unit noise level	dB(A)	58	60	60	63	
External unit	Dimensions (WxDxH)	mm	800x285x715	840x330x880	1050x330x1350	
	Package (WxDxH)	mm	1050x500x890	1100x500x1100	1300x600x1710	
	Net/Gross weight	kg	106/116	99/109	99/109	176/191
Refrigerant	Type	R32				
	Filling volume	kg	3,10	3,3	3,3	3.7x2
Refrigerant tubes	Liquid/Gas	mm (inch)	∅9.52/∅15.88(3/8'/5/8')	∅9.52/∅15.88(3/8'/5/8')	∅9.52/∅15.88(3/8'/5/8')	∅9.52/∅19.05(3/8'/3/4')
	Maximum length	m	60	50		
	Maximum height difference	m	30			20
Temperature	Cooling	°C	-7 +43			
	Heating	°C	-28 +30			

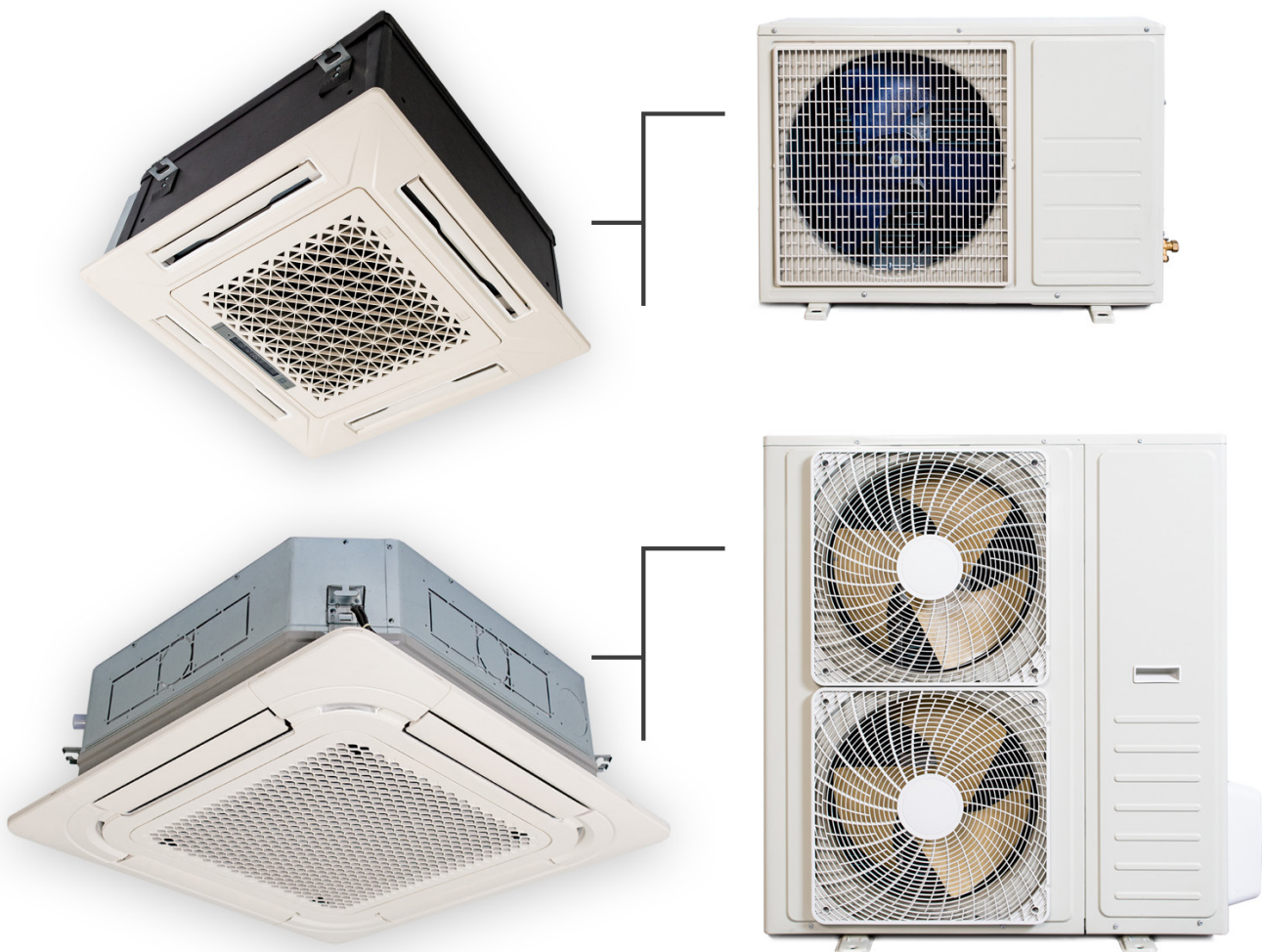
## CASSETTE SPLIT SYSTEMS

### PRINCIPLE OF OPERATION

The design of the cassette air conditioner has been developed with due regard to contemporary trends in architecture. Besides that, consideration for European standards in the field of construction and possibility of installation in renovated buildings allow the cassette air conditioners be high on the list in the market of climate control systems.

**Cassette air conditioners** are exactly the type of climate control technology, which provides fast and uniform creation and sustaining of a comfortable indoor temperature.

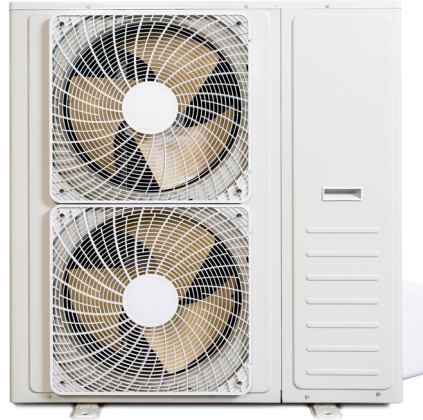
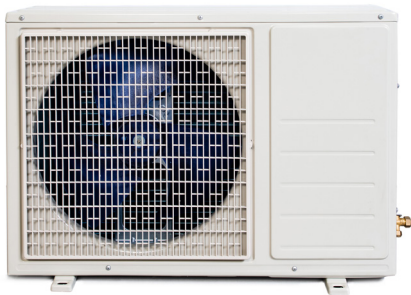
The air intake in the cassette air conditioner occurs through a grid in the center of the indoor unit panel and the cooled air is distributed in four directions. When installing this air conditioner in the center of the room, the maximum level of comfort is provided. Cassette split systems have an elegant design (only the front panel is visible) and allow fresh air to flow in. The main disadvantage of such systems is the need for suspended ceilings and sufficient ceiling void (from 25 cm).





The cassette air conditioners in the office. The main advantage of the cassette split systems is the uniform distribution of air flow in four directions, which allows using only one air conditioner to evenly cool a large room.

## HES AIR EVI K CASSETTE SPLIT SYSTEMS



### External units



### Internal units

The split system is used for space cooling and heating.

The external unit is equipped with a new generation inverter compressor with DC motor, a phase relay, a starting current load relief, a condenser, an evaporator and safety actuators – high and low pressure relay.

Availability of clock/calendar function and day/night mode allows to more precisely maintain indoor temperature and save resources.

### DEVICE PARAMETERS

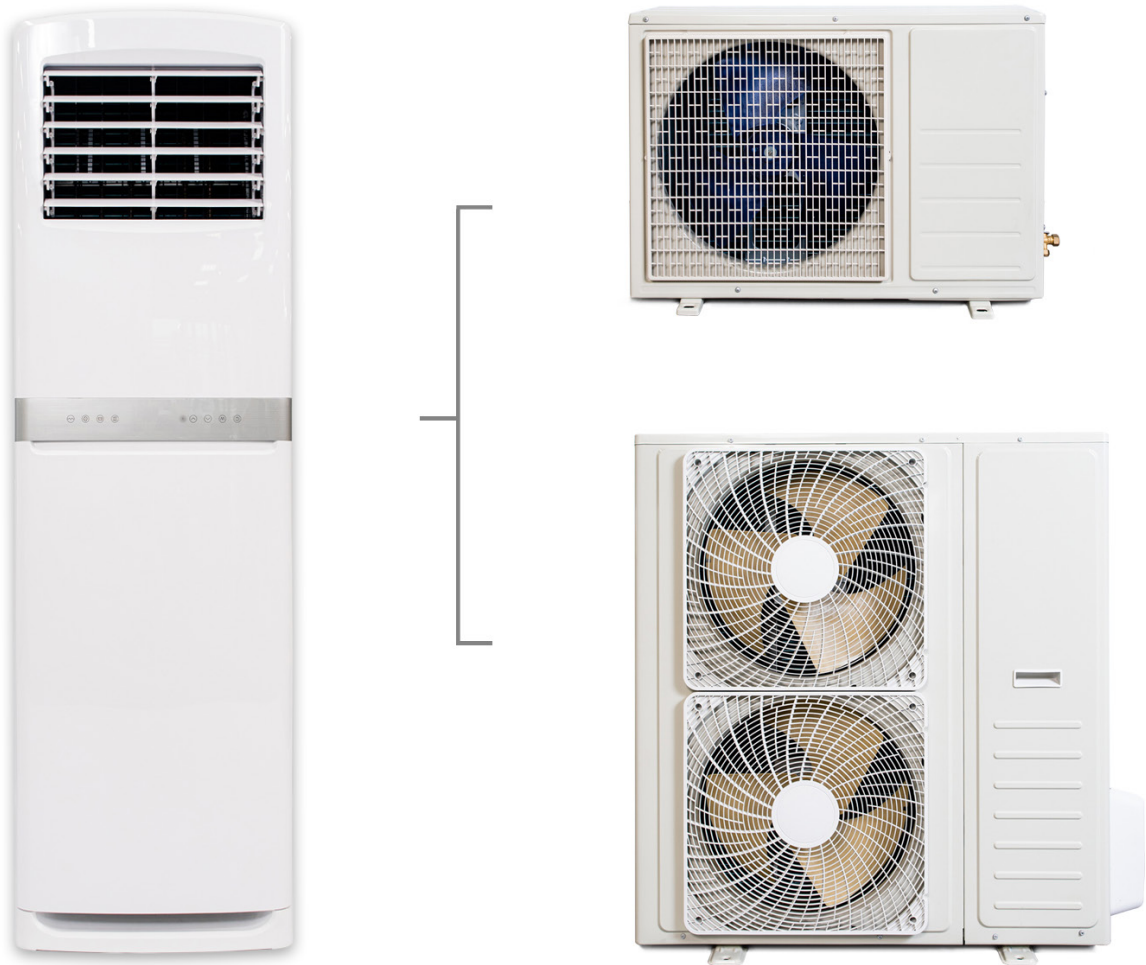
- ▶ Refrigerant R32;
- ▶ Reduced power consumption, precise temperature control, long service life;
- ▶ System operating economy can be over 15%;
- ▶ Sustainable heating/cooling function under any climatic conditions down to - 28 °C;
- ▶ Built-in Wi-Fi interface;
- ▶ Modern ergonomic design of internal unit;
- ▶ Standardized connection dimensions;
- ▶ Automatic restart;
- ▶ Remote control unit provided;
- ▶ High energy performance: seasonal energy efficiency class “A++”;
- ▶ Internal units are completed with antibacterial and antiviral filter with silver ions;
- ▶ “Frost protect” mode allows for energy-conserving background heating – minimum indoor temperature may be +10°C.



Model		HES AIR EVI C						
		5 kW	7 kW	10 kW	13 kW	13 kW	16 kW	
Internal		HES-AIR-EVI-i-18-C-4	HES-AIR-EVI-i-24-C-4	HES-AIR-EVI-i-36-C-4	HES-AIR-EVI-i-48-C-4	HES-AIR-EVI-i-60-C-4	HES-AIR-EVI-i-60-C-4	
External		HES-AIR-EVI-i-18-A-N-4	HES-AIR-EVI-i-24-A-N-4	HES-AIR-EVI-i-36-A-N-4	HES-AIR-EVI-i-48-A-N-6	HES-AIR-EVI-i-60-A-N-6	HES-AIR-EVI-i-100-A-N-6	
Power supply	V-Ph-Hz	220~240-1-50			380-415-3-50			
Maximum demanded power	W	1500		2200				
Maximum current consumption	A	12	13,0	17	17	9,5	9,5	
Cooling	Capacity	W	5000	7000	10880	10880	13000	13000
	Capacity	BTU/h	17060	23884	34163	34163	40846	40846
	Demanded power	W	1720	3505	2200			
	Current consumption	A	7,5	6,9	9		8	
	EER	W/W	2,91	3,01	2,4	2,4	3,14	3,14
Heating	Capacity	W	5300	8500	13000	13000	12200	12200
	Capacity	BTU/h	18083	29000	36363	36363	41627	41627
	Demanded power	W	1670	3100	2200			
	Current consumption	A	7,3	6,6	8			
	COP	W/W	3,61	3,41	3,63	2,83	3,16	3,16
Air volume (High/Med/Low)	m <sup>3</sup> /h	800/700/600	1100/1000/900	1600/1400/1200	2000/1800/1600	2000/1800/1600	2000/1800/1600	
External static pressure (ESP)	Nominal	Pa	0	0	0	0	0	0
	Range	Pa	0	0	0	0	0	0
Internal unit noise level (High/Med/Low)	dB(A)	46/44/42	43/41/38	53/50/48	50/45/42	50/45/42	50/45/42	
Internal unit	Dimensions (WxDxH)	mm	660x260x580	840x240x840	840x270x840			
	Package (WxDxH)	mm	770x310x750	996x370x956		996x420x956		
	Net/Gross weight	kg	20/27	28/35	30/39	33/42	33/42	33/42
Panel	Dimensions (WxDxH)		650x40x650	950x40x950				
	Package (WxDxH)		730x130x730	1025x120x1015				
	Net/Gross weight		2.4/ 5	6.5/9.5				
Rated pressure (High/Low)	MPa	4.8/1.6	4.1/1.6	4.1/1.6	4.15/1.6	4.15/1.5	4.15/1.5	
Dia of drainage duct	mm	Ø26		Ø32				
Controller		Remote control						
Compressor	Model		ANB33FNCMT	ANB33FNCMT	ANB33FNCMT	ANB33FJMMT	MNB36FABMC	ANB52FKFMT
	Type		Scroll					
	Brand		Mitsubishi Electric					
External unit noise level	dB(A)	54	56	62	55	58		
External unit	Dimensions (WxDxH)	mm	800x285x715	840x330x880	1050x330x1350			
	Package (WxDxH)	mm	1050x500x890	1100x500x1100	1300x600x1710			
	Net/Gross weight	kg	42/45	51/56	67/71	96/103	106/116	
Refrigerant	Type		R32					
	Filling volume	kg	1,3	1,7	2,9	2,4	3,6	
Refrigerant tubes	Liquid/Gas	mm (inch)	Ø6.35/Ø12.7(1/4»/1/2»)	Ø9.52/Ø15.88(3/8»/5/8»)	Ø9.52/Ø19(3/8"/3/4")			
	Maximum length	m	25	35	40	60		
	Maximum height difference	m	15	15	20	30	30	30
Temperature	Cooling	°C	-7 +43					
	Heating	°C	-28 +30					

## FLOOR STANDING SPLIT SYSTEMS

The floor standing air conditioners are featured by high performance and large coverage area. The cooling power of the floor standing split-systems is from 5 to 16 kW, which allows them to efficiently process air even in very spacious, high and complex rooms up to 200 square meters. They are installed in hotels, restaurants, gyms, large public spaces and medical facilities.



Most often, floor standing air conditioners are chosen in cases where it is not possible to install a wall or ceiling unit. The split system has an impressive list of advantages:

- ▶ High power and performance;
- ▶ Easy mounting;
- ▶ Fast and efficient conditioning of extra-large spaces;
- ▶ Quiet operation of internal unit;
- ▶ Even cooling/heating without “draughts”;
- ▶ Wide functionality;

- ▶ Attractive appearance fitting in modern interior design;
- ▶ Easy in handling and reliable during operation;
- ▶ When installed near doors, may be used as outdoor hot air shutoff.



## HES AIR EVI C FLOOR STANDING SPLIT SYSTEMS



### External units



### Internal units

The split system is used for space cooling and heating.

The external unit is equipped with a new generation inverter compressor with DC motor, a phase relay, a starting current load relief, a condenser, an evaporator and safety actuators – high and low pressure relay.

Availability of clock/calendar function and day/night mode allows to more precisely maintain indoor temperature and save resources.

### DEVICE PARAMETERS

- ▶ Refrigerant R32;
- ▶ Reduced power consumption, precise temperature control, long service life;
- ▶ System operating economy can be over 15%;
- ▶ Sustainable heating/cooling function under any climatic conditions down to - 28 °C;
- ▶ Built-in Wi-Fi interface;
- ▶ Modern ergonomic design of internal unit;
- ▶ Standardized connection dimensions;
- ▶ Automatic restart;
- ▶ Remote control unit provided;
- ▶ High energy performance: seasonal energy efficiency class “A++”;
- ▶ Internal units are completed with antibacterial and antiviral filter with silver ions;
- ▶ “Frost protect” mode allows for energy-conserving background heating – minimum indoor temperature may be +10°C.

Model		HTS AIR EVI F				
		7 kW	10 kW	13 kW	16 kW	
Internal		HES-AIR-EVI-i-24-F-4	HES-AIR-EVI-i-36-F-4	HES-AIR-EVI-i-60-F-4	HES-AIR-EVI-i-100-F-4	
External		HES-AIR-EVI-i-24-A-N-4	HES-AIR-EVI-i-36-A-N-4	HES-AIR-EVI-i-60-A-N-6	HES-AIR-EVI-i-100-A-N-6	
Power supply	V-Ph-Hz	220-240-1-50		380-415-3-50		
Maximum demanded power	W	1500	2200		3300	
Maximum current consumption	A	13,0	26,5	9,5	13	
Cooling	Capacity	W	7000	10880	13000	17000
	Capacity	BTU/h	23884	34163	40846	53414
	Demanded power	W	3505	2200	2200	3300
	Current consumption	A	6,9	21	8	13
	EER	W/W	3,01	2,4	3,14	2,64
Heating	Capacity	W	8500	13000	12200	20300
	Capacity	BTU/h	29000	36363	41627	63783
	Demanded power	W	3100	2200	2200	3300
	Current consumption	A	6,6	26	8	13
	COP	W/W	3,41	3,63	3,16	3,27
Air volume (High/Med/Low)	m <sup>3</sup> /h	1100/1000/900	1600/1400/1200	2000/1800/1600	5000/4000/3600	
Internal unit noise level (High/Med/Low)	dB(A)	47	54	50/45/42	55	
Internal unit	Dimensions (WxDxH)	mm	1860xΦ350(450 )	1780x506x315	1876x580x380	1200x380x1850
	Package (WxDxH)	mm		1860x610x430	2055x690x525	1270x420x2000
	Net/Gross weight	kg	35/42	38/43	33/42	126/131
Rated pressure (High/Low)	MPa	4.1/1.6	4.1/1.6	4.15/1.5	4.1/1.6	
Controller		Remote control				
Compressor	Model	ANB33FNCMT	ANB33FNCMT	ANB33FNCMT	ANB42FNDMT	
	Type	Scroll				
	Brand	Mitsubishi Electric				
External unit noise level	dB(A)	56	58	58	63	
External unit	Dimensions (WxDxH)	mm	840x330x880	1050x330x1350		
	Package (WxDxH)	mm	1100x500x1100	1300x600x1710		
	Net/Gross weight	kg	51/56	67/71	54,6/59	176/191
Refrigerant	Type	R32				
	Filling volume	kg	1,7	2,9	3.6	3.7x2
Refrigerant tubes	Liquid/Gas	mm (inch)	Ø9.52/ Ø12.7(3/8"/1/2")	Ø9.52/ Ø15.88(3/8"/5/8")	Ø9.52/Ø19.05(3/8"/3/4")	
	Maximum length	m	35	40	60	50
	Maximum height difference	m	15	20	30	20
Temperature	Cooling	°C	-7 +43			
	Heating	°C	-28 +30			

## MULTI SPLIT SYSTEMS

### PRINCIPLE OF OPERATION

Multi-split systems are a type of split-systems. Their difference lies in the fact that several internal units are connected to one external unit - usually from 2 to 5. At the same time, internal units may be not only of different capacities, but also of different types.

Multi-split systems allow saving the building outer wall space and not spoiling the building appearance with external units.



In multi-split systems, a separate freon route is laid between the external and each of the internal units.

Multi-split systems operate in one mode for either cooling or heating.

#### Advantages of multi-split systems:

- ▶ Minimum impact on building appearance;
- ▶ Ability to combine air conditioners of various types in one system;
- ▶ Ability to simultaneously cool/heat up to 9 rooms with one system;
- ▶ Ability to create its own temperature regime in each conditioned room;
- ▶ Maximum quiet operation.

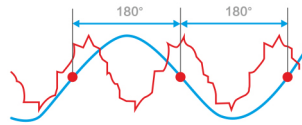
# HES AIR EVI O. EXTERNAL UNITS

## GENERAL CHARACTERISTICS



### Very high energy efficiency.

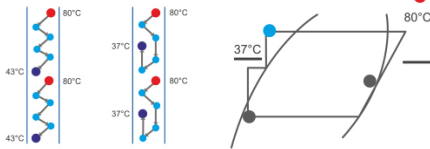
Equipped with highly efficient DC inverter compressor, adjustable fan and 180° sinusoid vector driver.



### 180°C sinusoidal wave control

The DC inverter compressor uses 180° sine vector control technology ensuring the compressor motor runs smoothly, and greatly improves efficiency.

### Ambient air temperature



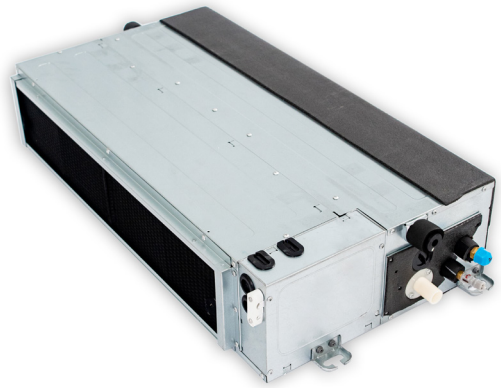
### Improved design of heat exchanger

Design provides overcooling and increases cooling power separating the refrigerant inlet/outlet.

Model	Unit of measurement	Specifications		
External unit		HES-AIR-EVI-i-24-A-O-4	HES-AIR-EVI-i-36-A-O-6	HES-AIR-EVI-i-100-A-O-6
Maximum number of connected internal units	pcs	2	3	5
Nominal refrigerating capacity	W	5300 (2000-5830)	7900 (2300-8690)	12000 (2770-12700)
Nominal heating capacity	W	5600 (2210-6160)	8200 (2450-9020)	13000 (2960-12800)
Nominal demanded power in cooling mode	W	1750 (280-2300)	2460 (560-3400)	3600 (800-4200)
Nominal demanded power in heating mode	W	1540 (280-2300)	2270 (560-3400)	3650(730-3800)
Nominal current in cooling mode	A	7,60	10,7	16,0
Nominal current in heating mode	A	6,70	9,80	16,50
ELECTRIC POWER SUPPLY	Ph / V~ / Hz	1/220-240/50 - 3/380/50		
Air volume (fan speed: high/med/low)	m <sup>3</sup> /h	2100	2700	6400
Noise level	dB (A)	55	58	57
FREON TYPE R410 A				
Factory filling weight	kg	1,35	1,40	3,40
Outside operation temperature range (Cooling/Heating)	°C	-15 +43 / -25 +24		
DIMENSIONS AND WEIGHT				
External unit	W/D/H, mm	800/348/715	834/328/655	1120/1510/400
External unit	kg	36,0	46,0	97,0

## HES AIR EVI MQ. CHANNEL MODELS

### GENERAL CHARACTERISTICS



#### Flexible installation

Rear air intake as standard.  
The size of the plate on the bottom is the same as the flange on the back, allowing to conveniently change the installation style depending on finishing requirements.



#### High static pressure.

Adjustable static pressure from 0 Pa to 160 Pa maximum

Model	Unit of measurement	Specifications		
External unit		HES-AIR-EVI-i-9-MQ-4	HES-AIR-EVI-i-12-MQ-4	HES-AIR-EVI-i-18-MQ-4
Nominal refrigerating capacity	W	2600	3600	5100
Nominal heating capacity	W	2900	4000	5800
Nominal demanded power in cooling mode	W	45	75	137
Nominal demanded power in heating mode	W	45	75	137
Nominal current in cooling mode	A	0,21	0.34	0.63
Nominal current in heating mode	A	0,21	0.34	0.63
ELECTRIC POWER SUPPLY	Ph / V~ / Hz	1/220-240/50		
Air volume (fan speed: high/med/low)	m3/h	420/336/294	580/464/406	860/688/602
Noise level	dB (A)	30/26/23	32/28/25	38/35/32
DIAMETERS OF TUBES				
Liquid tube	mm	∅ 6,35	∅ 6,35	∅ 6,35
Gas tube	mm	∅ 9,52	∅ 9,52 (∅ 12,70)	∅ 9,52 (∅ 12,70)
DIMENSIONS AND WEIGHT				
Internal unit	W/D/H, mm	840x465x185	840x465x185	840x465x185
Internal unit	kg	16,5	17,5	21,0



## HES AIR EVI MK. CASSETTE 4-DIRECTION MODELS

### GENERAL CHARACTERISTICS



#### Integrated drain pump

Built-in drain pump can lift condenser water up to 1,200 mm from the tray



#### Additional internal units (circular feed)

Model	Unit of measurement	Specifications		
Internal unit		HES-AIR-EVI-i-9-MK-4	HES-AIR-EVI-i-12-MK-4	HES-AIR-EVI-i-18-MK-4
Decorative panel		HES AIR DP13	HES AIR DP13	HES AIR DP13
Nominal refrigerating capacity	W	2800	3600	5000
Nominal heating capacity	W	3000	3900	5600
Nominal demanded power in cooling mode	W	70	70	70
Nominal demanded power in heating mode	W	70	70	70
Nominal current in cooling mode	A	0,32	0,32	0,32
Nominal current in heating mode	A	0,32	0,32	0,32
<b>ELECTRIC POWER SUPPLY</b>	<b>Ph/V~ / Hz</b>	<b>1/220-240/50</b>		
Air volume (fan speed: high/med/low)	m <sup>3</sup> /h	700/600/530	700/600/530	700/600/530
Noise level	dB (A)	45/41/35	45/41/35	45/41/35
<b>DIAMETERS OF TUBES</b>				
Liquid tube	mm	∅ 6,35	∅ 6,35	∅ 6,35
Gas tube	mm	∅ 9,52	∅ 9,52	∅ 9,52 (∅ 12,70)
<b>DIMENSIONS AND WEIGHT</b>				
Internal unit	W/D/H, mm	570/570/260	570/570/260	570/570/260
Decorative panel	W/D/H, mm	650x650x55	650x650x55	650x650x55
Internal unit	kg	18,0	18,0	18,0
Decorative panel	kg	2,2	2,2	2,2

## HES AIR EVI MW. WALL MODELS

### GENERAL CHARACTERISTICS



#### Automatic failure detection

In the event of a failure, the indicator will flash and a fault code will be displayed on the wired controller.



#### Long lasting washable filter


Washing period is twice as long as a conventional filter.

Model	Unit of measurement	Specifications		
Internal unit		HES-AIR-EVI-i-9-MW-4	HES-AIR-EVI-i-12-MW-4	HES-AIR-EVI-i-18-MW-4
Nominal refrigerating capacity	W	2550	3500	5300
Nominal heating capacity	W	2650	3500	5400
Nominal demanded power in cooling mode	W	40	40	63
Nominal demanded power in heating mode	W	40	40	63
Nominal current in cooling mode	A	0,20	0,20	0,30
Nominal current in heating mode	A	0,20	0,20	0,30
ELECTRIC POWER SUPPLY	Ph/V~/Hz	1/220-240/50		
Air volume (fan speed: high/med/low)	m3/h	650	650	1000
Noise level	dB (A)	41	42	48
DIAMETERS OF TUBES				
Liquid tube	mm	∅ 6,35	∅ 6,35	∅ 6,35
Gas tube	mm	∅ 9,52	∅ 9,52	∅ 12,70
DIMENSIONS AND WEIGHT				
Internal unit	W/D/H, mm	800/300/198	800/300/198	970/315/235
Internal unit	kg	9	9	12,5


## DEFINITION OF MODEL NAMES

model **HES - AIR - EVI - i - 60 - A - D - - 6**  
                   1    2  3  4  5  6  7  8

<b>1</b>	<b>AIR</b>	heat pump of «air - air» series
<b>2</b>		without injection
	<b>EVI</b>	injection
<b>3</b>		start-stop
	<b>i</b>	inverter
<b>4</b>	<b>9</b>	2,5 kW
	<b>12</b>	4 kW
	<b>18</b>	5 kW
	<b>24</b>	7 kW
	<b>36</b>	10 kW
	<b>48</b>	13 kW
	<b>60</b>	13 kW
<b>5</b>	<b>100</b>	16 kW
	<b>A</b>	Freon R410A
	<b>B</b>	Freon R32
	<b>C</b>	Freon R134A
<b>6</b>	<b>D</b>	Freon R454B
		standard
	<b>D</b>	ducted
	<b>C</b>	cassette
	<b>F</b>	floor standing
	<b>W</b>	wall-mounted
	<b>MW</b>	multi-split wall-mounted
	<b>MQ</b>	multi-split ducted
<b>MK</b>	multi-split cassette	
<b>7</b>		internal unit
	<b>N</b>	external unit
	<b>O</b>	multi-split external unit
<b>8</b>	<b>4</b>	power supply 220-240 V; 1 phase; 50 Hz
	<b>6</b>	power supply 380 V; 3 phases; 50 Hz

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