





LINEUP

HYDROLUTION EZY IDROSPLIT R290

		NEW		NEW		NEW		
Outdoor units kW	6.00	8.00	10.00	10.00	14.00	14.00		
	1-Phase	1-Phase	1-Phase	3-Phase	1-Phase	3-Phase		
								
	FDCM 60 VNX-P	FDCM 71 VNX-P	FDCM 100 VNX-P	FDCM 100 VSX-P	FDCM 140 VNX-P	FDCM 140 VSX-P		
	Indoor units							






NEW	Hydrobox*						
	 <p>HBM140 Controller included Pump included Idrosplit (R290 only in the outdoor unit)</p>	✓	✓	✓	✓	✓	✓

NEW	All in One*						
	 <p>HMM100 Controller included Pump included 180L DHW tank included Idrosplit (R290 only in the outdoor unit)</p>	✓	✓	✓	✓	✓	✓


*** The HBM (Hydrobox) and HMM (All in One) indoor units can be connected to both **Idrosplit systems: R290 and R32.****

LINEUP

HYDROLUTION EZY IDROSPLIT R32

Outdoor units kW		10.00	16.00
		1-Phase	1-Phase
		 FDCM 100 VNX-W	 FDCM 140 VNX-W
Indoor units			
NEW	Hydrobox*  HBM140 Controller included Pump included Idrosplit (R32 only in the outdoor unit)	✓	✓
	All in One*  HMM100 Controller included Pump included 180L DHW tank included Idrosplit (R32 only in the outdoor unit)	✓	

HYDROLUTION EZY FLEXIBLE R32

Outdoor units kW		16.00
		1-Phase
		 FDCM 140 VNX-W
		Modularity up to 8 units

HYDROLUTION EZY IDROSPLIT WITH PRODUCTION OF DOMESTIC HOT WATER



Heating, cooling
and DHW
production



EZY IDROSPLIT HYDROBOX, ALL IN ONE R290 E R32, EZY FLEXIBLE



R290
NEW REFRIGERANT

- 6 kW ■ 8 kW
- 10 kW ■ 14 kW **NEW**



NEW

Idrosplit Hydrobox R290

Idrosplit Hydrobox for heating and cooling. Or, combined with one or more buffer tanks to also produce DHW. Supply-water temperature in heating and DHW up to 75°C.



R290
NEW REFRIGERANT

- 6 kW ■ 8 kW
- 10 kW ■ 14 kW **NEW**

Idrosplit All in One R290

Idrosplit All in One for heating, cooling and DHW production (integrated 180-litre tank). Supply-water temperature in heating and DHW up to 75°C. No additional components to install other than the indoor module.



R32

- 10 kW ■ 16 kW



NEW

Idrosplit Hydrobox R32

Idrosplit Hydrobox for heating and cooling. Or, combined with one or more buffer tanks to also produce DHW.



R32

- 10 kW

Idrosplit All in One R32

Idrosplit All in One for heating, cooling and DHW production (10 kW, integrated 180-litre tank). No additional components to install other than the indoor module.



R32

- 16 kW

Flexible R32

Monobloc unit that can be installed as a single unit or in cascade up to 8 modules, with dedicated on-site systems.

Gas Free

All units are gas free: the refrigeration circuit is in the external unit, no refrigerant in the internal unit and inside the rooms, only water.

EZY R290

The EZY air-to-water heat pump absorbs heat from outdoor air and transfers it indoors for space heating and hot water production. It is an energy-efficient and eco-friendly solution that uses renewable energy to reduce electricity consumption.

TOP 75°C

EZY can produce hot water with an outlet temperature up to 75°C, guaranteed down to -25°C outdoor temperature

A+++

Energy class at 35°C, the temperature suitable for underfloor heating

TOP -25°C

Operating range: in heating from -25°C to 43°C; in cooling from 15°C to 45°C

A++

Energy class at 55°C, the temperature suitable for heating via fan-coils

With the shift from R32 to R290, in addition to higher supply temperatures, there has been an overall improvement in performance and efficiency.

+12,4%

Example: 10 kW size, **COP A7°C/W35°C**

Maximum quietness

In silent mode, the minimum sound pressure level is just 36 dB(A) for the 6.0 kW size and 37 dB(A) for the 8.0 kW size

OUTDOOR UNITS

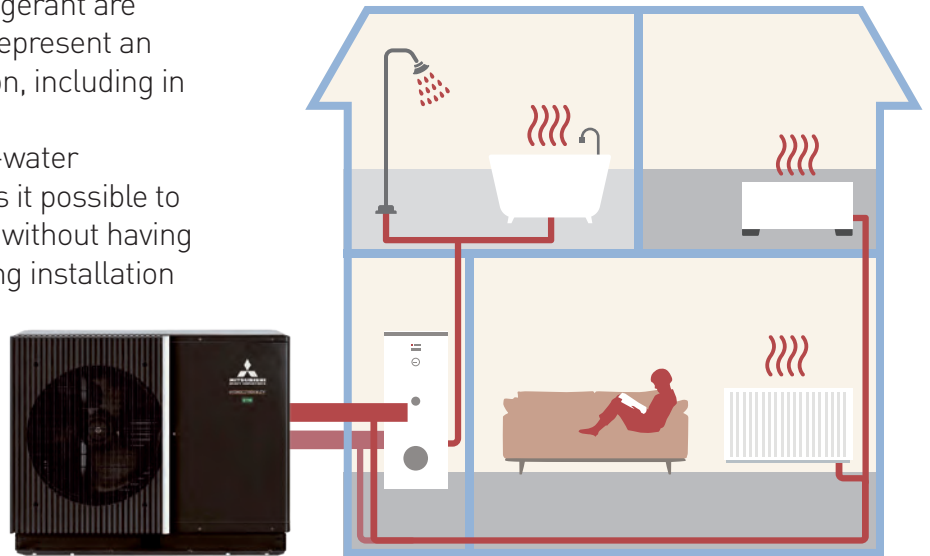
- FDCM 60 VNX-P
- FDCM 71 VNX-P
- FDCM 100 VN(S)X-P
- FDCM 140 VN(S)X-P



FOR RADIATOR SYSTEMS

EZY heat pumps with R290 refrigerant are compatible with radiators and represent an efficient and sustainable solution, including in refurbishment projects.

The ability to reach high supply-water temperatures up to 75°C makes it possible to adapt them to existing systems without having to replace the radiators, reducing installation time and costs



R290 heat pumps can produce hot water at very high temperatures, ideal for radiators and therefore for installation on existing systems.



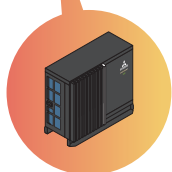
TECHNOLOGY AND DESIGN

The Hydrolution EZY series features an elegant raven-black exterior that integrates perfectly with the surrounding environment.

Its design blends harmoniously with contemporary urban spaces and a variety of settings, while also standing out with a bold, high-impact presence.

BEST INSTALLATION POSSIBILITIES

For safe installation of an R290 heat pump, a specific 'clearance zone' with defined safety characteristics must be taken into account. MHI has conducted accurate tests in the event of a leak; the result is the possibility to reduce the baseline prescription that, in the absence of tests, everyone must follow. This leads to the **best installation possibilities on the market**.



CLEARANCE ZONE

To install an R290 heat pump, it is essential to respect a specific clearance zone to ensure safety and efficiency, including proper ventilation and the absence of ignition sources or openings such as doors and windows..

SAFE TO USE

The refrigerant is fully contained within the outdoor unit, ensuring safe use of the A3 refrigerant.

EASY TO INSTALL

Idrosplit unit with minimal connections and a less complex installation process.

EZY INSTALLATION ADVANTAGES

As an Idrosplit unit, EZY requires a minimal number of hydronic and electrical connections.

Compared to split systems, it offers a Plug & Play installation process in retrofit applications.

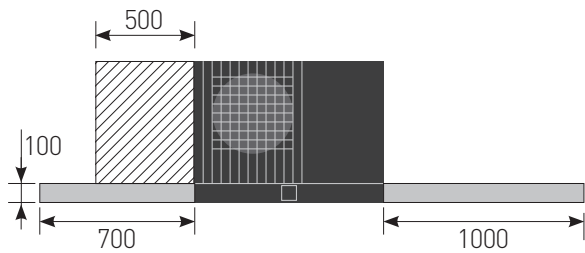
BEST IN CLASS

Mitsubishi Heavy Industries' research centre has carried out **studies and real-life simulations** on the dispersion of R290 gas in the event of a leak, **establishing clearance zones precisely** based on the measured data. This results in reduced minimum distances compared to other competitors in all possible installation Types.

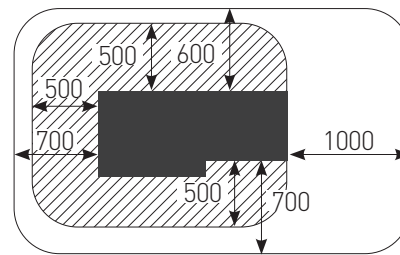
Maximum flexibility, minimal restriction: EZY Idrosplit is the R290 heat pump with the widest installation possibilities on the market.

INSTALLATION ON A FLAT ROOF AND IN OPEN SPACE

FRONT VIEW

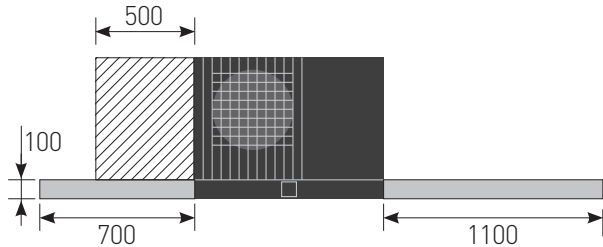


TOP VIEW

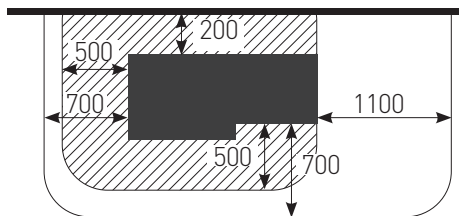


GROUND INSTALLATION IN FRONT OF A WALL

FRONT VIEW



TOP VIEW



- 100 mm from the base of the unit
- Unit height

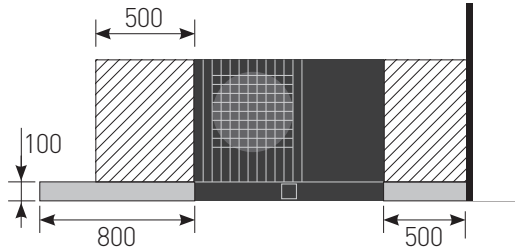
The clearance zones shown above apply exclusively to units FDCM 60 VNX-P and FDCM 71 VNX-P.

For all other models, consult the relevant manuals. Always refer to the specific technical documentation for each unit for further installation guidance.

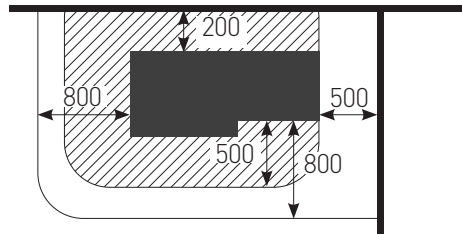
EZY R290 / CLEARANCE ZONES

INSTALLATION IN A WALL CORNER - RIGHT SIDE

FRONT VIEW

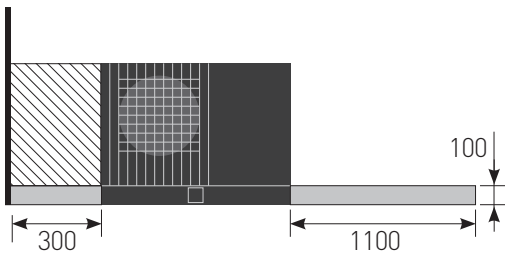


TOP VIEW

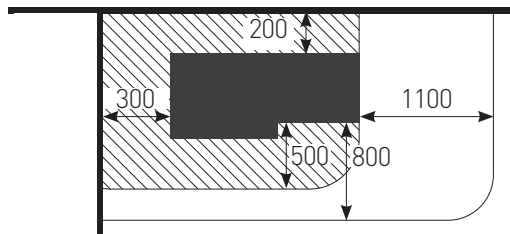


INSTALLATION IN A WALL CORNER - LEFT SIDE

FRONT VIEW

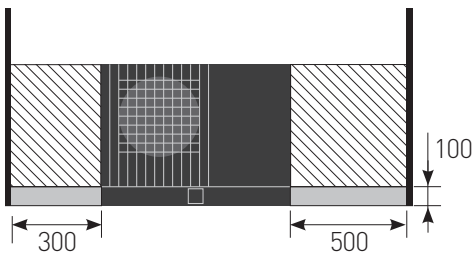


TOP VIEW

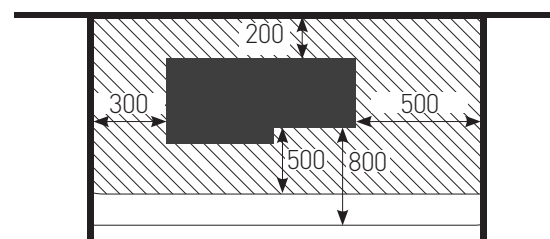




INSTALLATION WITH WALLS ON THE RIGHT, LEFT AND BEHIND

FRONT VIEW



TOP VIEW



-  100 mm from the base of the unit
-  Unit height

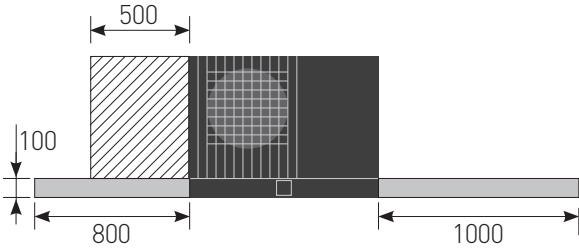
The clearance zones shown above apply exclusively to units FDCM 60 VNX-P and FDCM 71 VNX-P.

For all other models, consult the relevant manuals. Always refer to the specific technical documentation for each unit for further installation guidance.

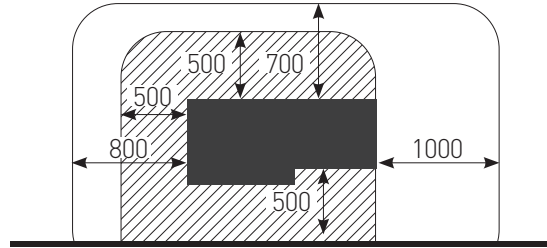
EZY R290 / CLEARANCE ZONES

INSTALLATION IN FRONT OF A BUILDING WALL

FRONT VIEW

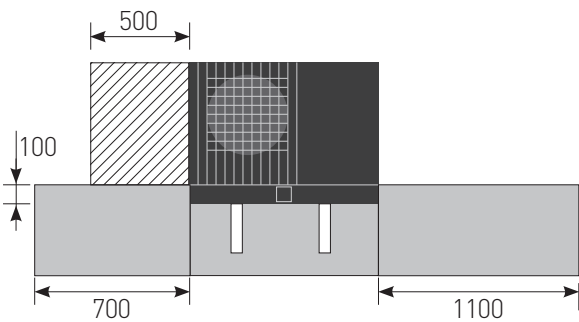


TOP VIEW

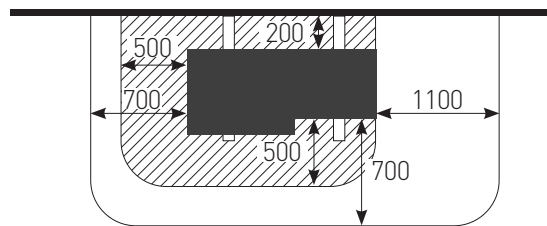


INSTALLATION RAISED FROM THE GROUND

FRONT VIEW

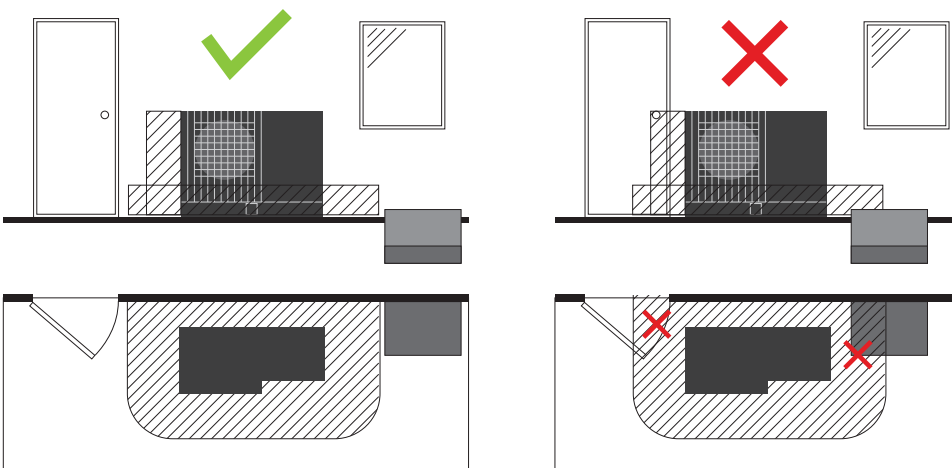


TOP VIEW



RESPECT OPENINGS

In the protection zone there must be no building openings: windows, doors, ducts/shafts, cellar entrances, escape hatches or ventilation openings.

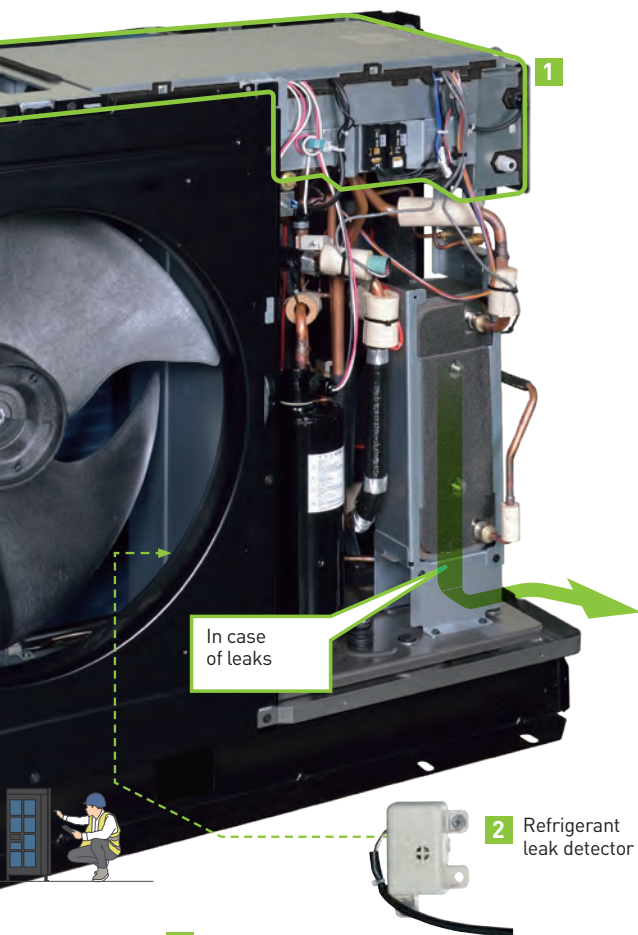


The clearance zones shown above apply exclusively to units FDCM 60 VNX-P and FDCM 71 VNX-P.

For all other models, consult the relevant manuals. Always refer to the specific technical documentation for each unit for further installation guidance.

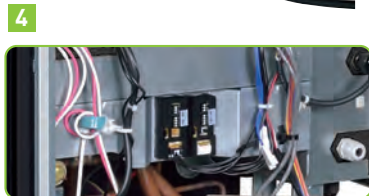
SAFETY SOLUTIONS

Hydrolution EZY is equipped with robust multi-level safety measures to prevent potential failures, even in the event of refrigerant leakage from the circuit. This ensures customer safety while making full use of the performance potential of A3 refrigerants.



FEATURES

- 1 Non-flammable top enclosure:** the PCB and terminal block are housed in a non-flammable enclosure.
- 2 Refrigerant leak detector:** in the event of a leak, the unit automatically shuts down and triggers an alarm on the indoor controller. The fan also activates to disperse the leaked refrigerant.
- 3 Leak check and lower vent hole:** a vent hole at the bottom ensures easy removal of any refrigerant leakage and allows easy verification of leaks through the hole.
- 4 External DIP switch:** there is no need to touch or access the refrigerant circuit and electrical box to change settings during installation or maintenance.
- 5 Gas separator with safety release valve:** prevents refrigerant from reaching the hydronic circuit.



Installation must be carried out only by certified personnel.

PROTECTIVE CLOTHING, EQUIPMENT AND TOOLS

Equipment	Fire and explosion prevention
Safety gloves	Approved extinguisher
Antistatic footwear	Prohibition of possible ignition sources within a 3 m radius of the machine during installation and maintenance
Antistatic clothing	ATEX explosimeter
Safety glasses or visor	ATEX leak detector
	Brushless screwdriver

EFFICIENCY AND HIGH CAPACITY

EZY R290 is the heat pump that offers the best performance on the market in terms of output and average efficiency in heating and cooling, with the **unique feature of producing 75°C hot water down to -25°C outdoor temperature.**

SEASONAL EFFICIENCY

4.75 SCOP

At 35°C (6 kW size)

5.00 SCOP

At 35°C (10 kW size)

3.61 SCOP

At 55°C (6 and 8 kW sizes)

3.71 SCOP

At 55°C (10 kW size)

OUTDOOR UNITS - LOW-TEMPERATURE HEATING

5.14 COP

In heating at 35°C
(A7/W35, 6 kW size)

4.49 COP

In heating at 35°C
(A7/W35, 8 kW size)

OUTDOOR UNITS - COOLING

7.5 kW

Cooling capacity
(A35/W18, 6 kW size)

9 kW

Cooling capacity
(A35/W18, 8 kW size)

HYDROLUTION EZY SYSTEM - CONFIGURATIONS

EZY IDROSPLIT ALL IN ONE CONFIGURATION

Hydrolution EZY Idrosplit R290 is a heat pump system for heating, cooling and domestic hot water production with a tank integrated into the internal module. A high-performance product, made with the latest generation technologies and construction features to ensure maximum operating efficiency, hot water production up to 75°C makes it an optimal solution for retrofitting existing radiator systems.

**GWP
0.02**

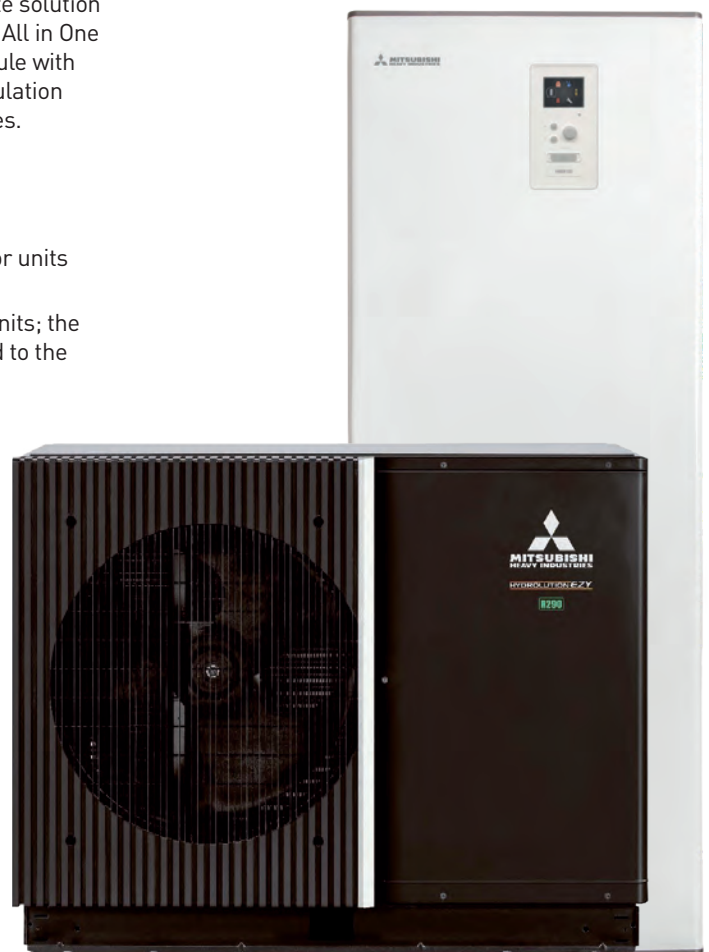
R290
6, 8, 10, 14 kW
models

HYDROLUTION EZY IDROSPLIT ALL IN ONE R290 COMBINATIONS

The EZY Idrosplit All in One R290 combination provides a complete solution for all space heating, cooling and DHW needs. Each EZY Idrosplit All in One combination consists of an FDCM outdoor unit and an HMM module with integrated controller. Inside the HMM: integrated DHW tank, circulation pump, electric heater, titanium anode, expansion vessel and valves.

The advantages of the EZY Idrosplit All in One solution:

- **HEATING, COOLING AND HOT WATER** with a single internal HMM module;
- **EASY INSTALLATION AND OPERATION**, the indoor and outdoor units are compact and make installation as simple as possible;
- **GAS FREE**: hydronic connection between outdoor and indoor units; the refrigeration circuit - and therefore the refrigerant - is confined to the outdoor unit only.
- ideal for residential use in apartments and small homes; three adjustable control levels (economic, normal, luxury) for the production of DHW;
- **CAPACITIES AVAILABLE**
 - 6 kW - R290
 - 8 kW - R290
 - 10 kW - R290
 - 14 kW - R290



HYDROLUTION EZY SYSTEM - CONFIGURATIONS

EZY IDROSPLIT ALL IN ONE CONFIGURATION

The wide range of Mitsubishi Heavy Industries products offers the right heat pump to meet every need.

EZY Idrosplit All in One is a complete solution, suitable for renovations and new constructions.

HYDROLUTION EZY IDROSPLIT ALL IN ONE R32 COMBINATIONS

The EZY Idrosplit All in One R32 combination provides a complete solution for all space heating, cooling and DHW needs. Each EZY Idrosplit All in One combination consists of an FDCM outdoor unit and an HMM module with integrated controller. Inside the HMM: integrated DHW tank, circulation pump, electric heater, titanium anode, expansion vessel and valves.

The advantages of the EZY Idrosplit All in One solution:

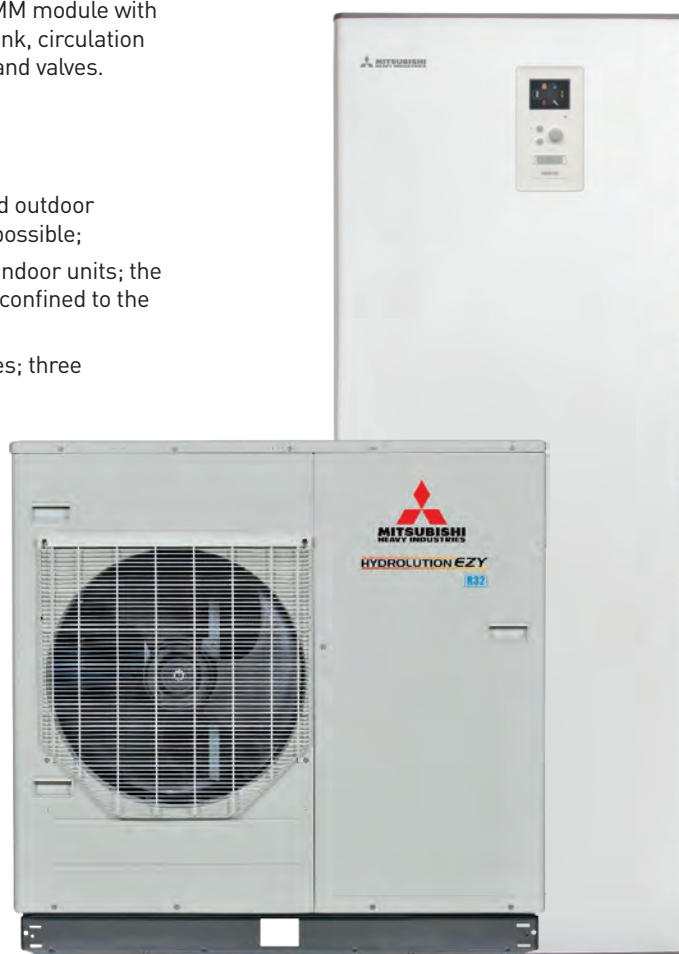
- **HEATING, COOLING AND HOT WATER** with a single internal HMM module;
- **EASY INSTALLATION AND OPERATION**, the indoor and outdoor units are compact and make installation as simple as possible;
- **GAS FREE**: hydronic connection between outdoor and indoor units; the refrigeration circuit - and therefore the refrigerant - is confined to the outdoor unit only.
- ideal for residential use in apartments and small homes; three adjustable control levels (economic, normal, luxury) for the production of DHW;

■ **CAPACITIES AVAILABLE**

10 kW - R32

**GWP
675**

R32
10 kW
model



HMM MODULE

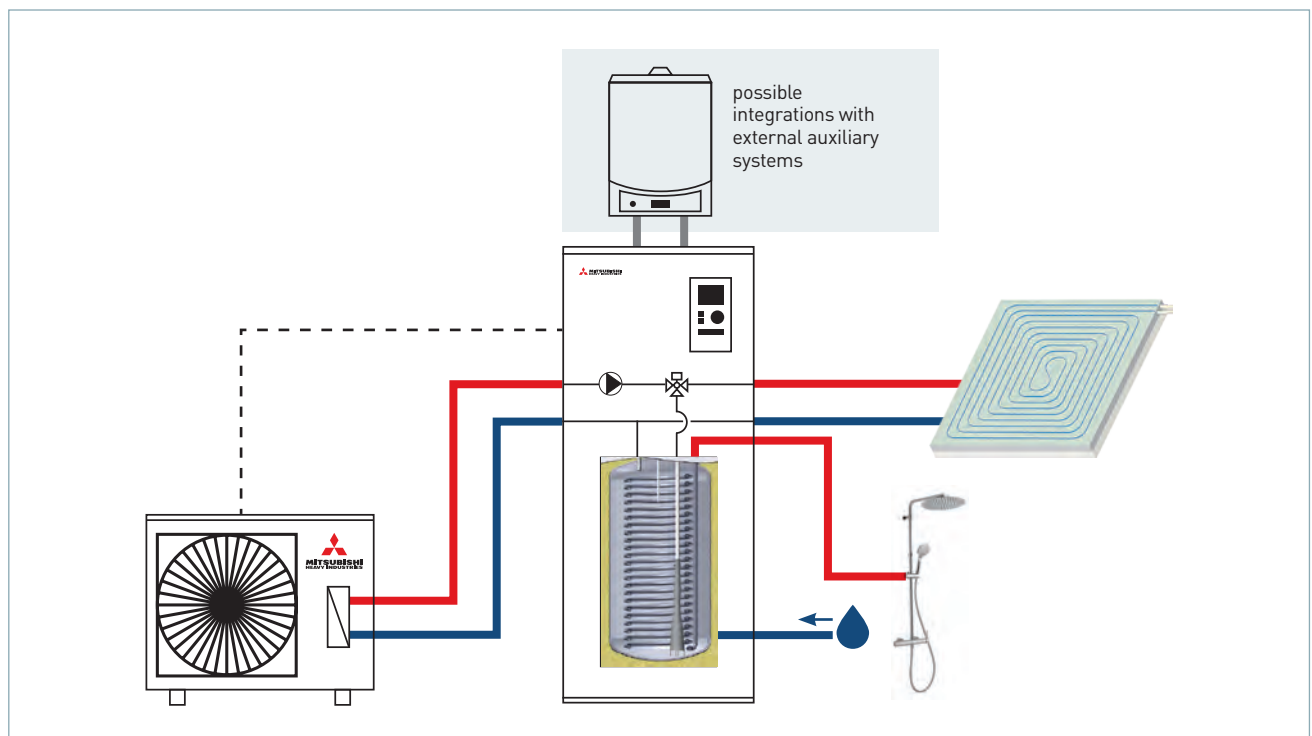
The HYDROLUTION EZY Idrosplit All in One solution meets, with a plug-in solution, the main requirements of a home: heating, cooling and DHW production.

MAIN ADVANTAGES OF HMM MODULE

- absence of refrigerant gas in the machine and consequently in the home;
- integrated control on the machine which facilitates the management and installation of the system;
- integrated circulator for heating and cooling;
- integrated 180 liter tank for the production of DHW;
- possibility of single-phase or three-phase power supply via special terminal block;
- titanium anode included as standard.



OPERATING DIAGRAM



HYDROLUTION EZY SYSTEM - TECHNICAL DATA

EZY IDROSPLIT ALL IN ONE R290 AND R32

Outdoor unit model				FDCM 60VNX-P	FDCM 71VNX-P	FDCM 100VNX-P	FDCM 100VSX-P	FDCM 100VNX-W		
Heating	Rated power	A7//W35	kW	5.50 (0.95-8.00)	8.00 (1.00-10.00)	10.00 (1.40-15.00)*	10.00 (1.40-15.00)*	10.00 (4.50-11.00)		
	Power input			1.07	1.85	2.13*	2.13*	2.33		
	Performance coefficient			COP	5.14	4.49	4.70*	4.70*	4.29	
	Rated power	A7//W45	kW	5.50 (0.92-8.00)	8.00 (0.97-10.00)	10.20 (1.30-14.70)*	10.20 (1.30-14.70)*	10.00 (6.40-11.00)		
	Power input			1.46	2.11	2.76*	2.76*	2.90		
	Performance coefficient			COP	3.77	3.79	3.70*	3.70*	3.45	
Cooling	Rated power	A35//W18	kW	7.50 (1.93-8.00)	9.00 (1.93-10.00)	13.00 (3.30-14.80)*	13.00 (3.30-14.80)*	11.00 (4.00-11.00)		
	Power input			2.05	2.20	3.60*	3.60*	2.97		
	Energy efficiency			EER	3.66	4.09	3.61*	3.61*	3.70	
	Rated power	A35//W7	kW	5.30 (1.32-6.30)	7.00 (1.32-7.50)	9.00 (2.20-12.00)*	9.00 (2.20-12.00)*	8.50 (3.70-9.50)		
	Power input			1.75	2.25	3.00*	3.00*	2.98		
	Energy efficiency			EER	3.03	3.11	3.00*	3.00*	2.85	
Seasonal data (Heating)	Prated @ -10°C	35/55	kW	5/5	7/7			8/8		
	Seasonal performance coefficient			SCOP	4.75/3.61	4.61/3.61	5.00/3.71*	5.00/3.71*	4.85/3.48	
	Seasonal energy efficiency (ns)			%	187/141	181/141	197/145.4*	197/145.4*	191/136	
	Energy efficiency class			-	A+++/A++	A+++/A++	A+++/A+++	A+++/A+++	A+++/A++	
	Annual energy consumption			kWh/y	2135/2695	3055/3841			3815/5539	
Operating range	Outdoor air temperature	Heating & DHW	°C	-25-43	-25-43	-25-43	-25-43	-25-43		
		Cooling		15-45	15-45	15-45	15-45	15-43		
Refrigerant circuit data	Refrigerant Type (GWP)				R290 (0.02)			R32 (675)		
	Q.ty of precharge (tons CO2)	kg (t)	0.65 (0)	0.85 (0)	1.3 (0)	1.3 (0)	2.0 (1.350)			
	Refrigerant control system	Electronic expansion valve								
	Compressor	Type	Twin rotary - DC Inverter							
Hydraulic data	Water/freon heat exchanger	Type	Braze-welded plates							
	Water connections	Size	1" (DN25)			1" (DN25)		1" (DN25)		
	Operating pressure (system)	Max	3			3		3		
Electrical data	Power supply	Ph-V-Hz	1ph-230V-50Hz				3ph-400V-50Hz	1ph-230V-50Hz		
	Maximum current	A	13.00	16.00	21.00	11.00	21.00			
	Power cable (recommended)	Type	3x2.5 mm ²		3x6 mm ²	5x2.5 mm ²	3x6 mm ²			
Product specifications	Fan	Type	DC Inverter							
		Air flow	m ³ /h	2520	3000	3300	3300	3180		
	Sound power level (max)		dB(A)	58	62	66	66	60		
	Sound pressure level (a 1 m)		dB(A)	41	49	50	50	45		
	Dimensions	LxDxH	mm	1160x440x916			1160x440x1120			
Weight	Net	kg	82	90	122	127	104			
Indoor unit model				HMM100	HMM100	HMM100	HMM100	HMM100		
Operating range	Delivery water temperature	Heating & DHW	°C	25-75 (85 with heater)				25-60 (65 with heater)		
		Cooling		5-25				7-25		
Hydraulic data	DHW temperature (tank)	Max	80							
	DHW tank capacity	L	180							
	Circulation pump	Included								
	Water connections for O.U.	Size	mm	22						
	Operating pressure (system)	Max	bar	10						
Expansion vessel	Volume	L	10							
	Precharge	bar	0.5							
Electrical data	Power supply	Ph-V-Hz	1ph-230V-50Hz / 3ph-400V-50Hz							
	Electrical integration	kW	6.00 / 9.00							
	Power input (Max)	A	26.00 / 13.00							
	Power cable (recommended)	Type	3x10 mm ² / 5x2.5 mm ²							
Product specifications	Sound power level	dB(A)	-							
	Dimensions	LxDxH	mm	600x610x1670						
	Weight	Net	kg	150						
	Anode (supplied)	Titanium								
	Control (included)	On board machine								
	Remote control via Modbus (optional)	MODBUS40M								

The above data refers to the following standards: EN 14511:2018; EN 14825:2019; EN50564:2011; EN12102-1:2018; EN12102-2:2019; [EU]No:811:2013; [EU]No:813:2013; OJ 2014/C 207/02:2014.

* MHI also reserves the right, during commercialisation, to make minor changes to products in order to improve the product as a whole. As a result, the technical data indicated in the catalogue may be subject to change without notice.

HEATING / COOLING / DOMESTIC HOT WATER

HYDROLUTION SYSTEM - ACCESSORIES

	Description	Code		Description	Code
	Electric resistance integration kit for EZY system.	ELK9M1		Ambient temperature sensor.	RTS40M
	6 kW All in One module (R32).	HMA 60-W		Remote control.	RMU40M
	8 kW All in One module (R32).	HMA 100-W		Energy measurement kit up to 85 litres/min.	EMK300M
	6, 8, 10 kW EZY Idrosplit module (R290 - R32).	HMM 100		Energy measurement kit up to 150 litres/min.	EMK500M
	6 to 16 kW Hydrobox EZY Idrosplit module (R290 - R32).	HBM140		3 kW electric resistance kit + control unit.	ME1030+HR10M
	Hydrobox for 6 kW O.U.	HMS 60-W		MODBUS remote control.	MODBUS40M
	Hydrobox for 8 kW O.U.	HMS 100-W		Integrated stainless steel storage tank and coil for the production of domestic hot water. Volume 300 litres. Dimensions (Ø x h) 650 x 1486 mm.	WT-AP-DW1-300 C-1
	Modular units' control (up to 8).	RC-HY40-W		Integrated stainless steel storage tank and coil for the production of domestic hot water. Volume 500 litres. Dimensions (Ø x h) 750 x 1786 mm.	WT-AP-DW1-500 C-1
	Circulation pump (up to 10 kW).	CPD11-25M-65		1.5 kW supplementary electric resistance for 300 and 500 liter tanks.	WT-EH-15-C
	Circulation pump (16 kW).	CPD11-25M-75		Titanium anode for 300 liter tank.	WT-AT-2-4-C
	DHW/heating diverter valve (6-8 kW)	VST05M		Titanium anode for 500 liter tank.	WT-AT-5-C
	DHW/heating diverter valve 10-16 kW).	VST11M		Hydraulic separator - 25 liter thermal flywheel.	WT-SI-PDC-25 C
	DHW/heating diverter valve for power >16 kW and up to 40 kW.	VST20M		Hydraulic separator - 51 liter thermal flywheel.	WT-SI-PDC-50 C
	Cooling Heating diverter valve (6-8 kW).	VCC05M		100 liter inertial tank.	WT-VT-PDC-100 C
	Cooling Heating diverter valve (10-16 kW).	VCC11M			
	Control kit for secondary heating systems up to 1200 l/h.	ECS40M			
	Control kit for secondary heating systems up to 1950 l/h.	ECS41M			
	Multifunction card.	AXC30M			

SAFETY KIT FOR INSTALLATION

The kit includes:

- Electronic leak detector.
- Personal detector.
- Sure Check spray leak detector.
- ATEX fan.
- Safety glasses.
- Antistatic gloves.
- Termal pouch.

