

MAXA[®]
HEATING & COOLING

LIVE
DIFFERENT

i-290

Choose the Future. Now.

Reversible air/water heat pumps monoblock
inverter with Gas R290



DESIGNED, MANUFACTURED, GUARANTEED IN ITALY



i-290 Inverter Heat Pumps

Efficiency, Comfort and Environmental Sustainability

Solutions that maximize energy efficiency for heating, cooling, and domestic hot water production, ensuring a high level of environmental sustainability.
The use of **natural refrigerant R290** enables high performance with full respect for the environment, ensuring comfort and energy savings in residential, commercial and industrial applications.
The range is designed to adapt to diverse application contexts: **14 models** are available, with capacities from **6 to 50 kW**, offering versatility, reliability, and tailored performance.



78°C

Maximum water supply temperature up to 78°C, guaranteed on a continuous basis.



-20/+46°C

Perfect for any climate thanks to the wide operating range from -20°C to +46°C.



350 kW

Single units from 6 to 50 kW, which, when configured in **cascade**, can reach a maximum of 350 kW.



A+++

Energy efficiency class up to A+++.

GWP = 0,02

Environmentally friendly R290 refrigerant with a very low climate impact, for sustainable applications.

Design

The unique **design** and modern aesthetics facilitate architectural integration in any context.

Made In Italy

Range conceived, designed and manufactured by Maxa at the Arcole (Italy) plant.

Easy Plug

All components have been arranged to maximize ease of installation.





Maximum respect for the environment

The **eco-friendly gas R290**, with an extremely low GWP of just 0.02 (Global Warming Potential), drastically reduces environmental impact compared to traditional gases, delivering a concrete improvement in environmental sustainability. This means that the environmental impact of R290 gas on global warming is very low.



Ease of Installation

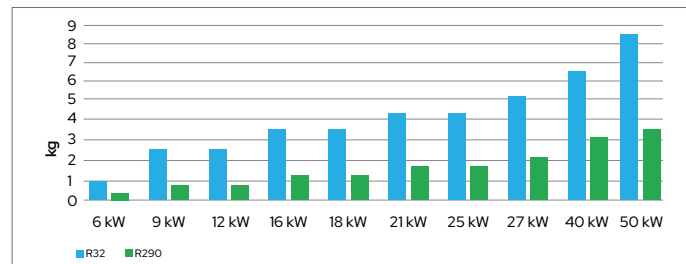
The heat pumps in the i-290 range are designed for quick and straightforward commissioning. Thanks to the hydraulic connections located at the rear of the heat pump, where the electrical service terminal blocks are also positioned, installation and commissioning are significantly simplified.

Solution suitable for every system

The i-290 range can be perfectly and rapidly integrated both into new buildings and in combination with existing systems, allowing highly efficient operation with both radiant underfloor systems and traditional systems with high-temperature water. Numerous accessories and configurations make it possible to customize the equipment of each heat pump.

Reduced refrigerant charge

The i-290 heat pumps ensure a significantly reduced refrigerant charge compared to traditional R32 solutions. For the same heating capacity, the amount of R290 required is considerably lower, with values that remain limited even in the higher-capacity models.



High level of safety

The i-290 heat pumps guarantee high safety standards. In sizes from 0106 to 0127, the use of **antispark components** always ensures safe operation of the heat pump. In the larger sizes, 0240 and 0250, the use of **leak detection sensors**, installed directly inside the heat pumps, determines their overall safety.

The i-290 heat pumps up to size 0127 are also equipped as standard with a **air separator** that continuously removes any air and gas present in the hydraulic circuit.

The internal filter creates turbulence, promoting the separation of micro-bubbles, which are then automatically expelled by a float valve. This component improves efficiency, reduces noise and extends the service life of the system.



Assured performance all year round

The indispensable comfort ensured by domestic water systems, and the resulting increase in demand for domestic hot water, are perfectly met by i-290 technology, which confirms and extends the application range of heat pumps designed for this purpose. The i-290 range makes it possible to produce technical hot water under any outdoor temperature condition, from +46°C down to -20°C.

Dimensions



		0106	0109 0109 T	0112 0112 T	0114	0115	0118	0121	0123	0125	0127	0240	0250
L	mm	1105	1105	1105	1105	1105	1105	1610	1610	1610	1610	1850	1850
P	mm	512	512	512	512	512	512	710	710	710	710	1110	1110
H	mm	870	870	1440	1440	1440	1440	1270	1270	1270	1270	1920	1920

Main Available Accessories

NAME	DESCRIPTION	MODELS		
		0106 / 0118	0121 / 0127	0240/0250
FACTORY-MOUNTED ACCESSORIES				
CM	Modbus connectivity ready	■	●	●
KA	Heat exchanger resistance + base	●	●	x
KA1	Adhesive resistance heat exchanger + pump resistance (if present)	x	x	●
KA3	Base frame resistance	●	●	x
RP	Battery protection grilles	●	●	●
PS	Single AC pump	x	x	●
PSI	Single variable-speed AC pump with inverter control	x	x	●
PSEC	Single EC pump	x	x	●
PS-SI	Single AC pump and buffer tank	x	x	●
PSI-SI	Single inverter-driven modulating AC pump and buffer tank	x	x	●
PSEC-SI	Single EC pump and buffer tank	x	x	●
TR2	Cu/Al coil with anti-corrosion treatment	●	●	●
TR2C4	Cu/Al coil and sheet metal with anti-corrosion treatment	●	●	●
SL	Silencing	●*	x	●
SSL	Super soundproofing	x	●	●
EX SL	Extra Silencing	x	x	●
EX SSL	Extra Super silencing (includes EX SL)	x	x	●
ACCESSORIES SUPPLIED SEPARATELY				
e-Pro	Wall-mounted Wi-Fi remote control	■	■	●
e-Lite	Multifunction touch screen wired control	●	●	●
Hi-TV415	Remote touchscreen display	●	●	●
CONNECT BOX	Heat pump communication gateway and MAXA CONNECT	●	●	●
VSA	Anti-freeze drain valve for hydraulic circuit	●	●	●
FD	Sludge separator filter	●	●	x
FD-DA	Defanging Filter / Deaerator Kit	x	x	●
FY	Y-strainer	●	●	●
Gi3	Hardware expansion module	●	●	●
AG	Anti-vibration kit	●	●	●
RP	Battery protection grilles (for field mounting)	●	●	●
RV	Grooved Connection Joint	x	x	●
SAS	Domestic hot water storage probe – Remote system probe	●	●	●
SPS	Solar panel probe usable only with Gi3	●	●	●
VDIS2	Three-way diverter valve – Kvs 19.2	●	x	x
VDIS3	Three-way diverter valve – Kvs 20.8	x	●	x
VDIS4	Three-way diverter valve for domestic hot water production in thermal storage tank	x	x	●

●: available

x: not included

■: supplied as standard

*: version, not an accessory

		0106	0109	0109 T **	0112	0112 T **	0114 **	0115	0118
Cooling capacity (1)	kW	5,43	8,57	8,57	10,7	10,7	11,60	12,4	13,8
Power input (1)	kW	1,95	2,77	2,77	3,75	3,92	3,60	3,71	4,34
EER (1)	W/W	2,79	3,09	3,09	2,85	2,73	3,22	3,35	3,16
Cooling capacity (2)	kW	5,62	9,15	9,15	12,6	12,2	11,7	12,9	13,9
Power input (2)	kW	1,25	1,93	1,93	2,83	2,93	2,40	2,40	2,69
EER (2)	W/W	4,48	4,75	4,75	4,44	4,16	4,88	5,37	5,18
SEER (5)	W/W	4,77	5,41	5,41	4,72	4,56	4,93	5,02	5,04
Water flow rate (1)	L/s	0,26	0,40	0,40	0,49	0,49	0,55	0,57	0,66
Heating capacity (3)	kW	6,24	9,07	9,07	12,6	12,3	14,8	16,3	18,7
Input power (3)	kW	1,31	1,99	1,99	2,61	2,67	3,06	3,30	4,05
COP (3)	W/W	4,76	4,56	4,56	4,83	4,61	4,84	4,94	4,62
Heating capacity (4)	kW	5,97	8,74	8,74	11,6	11,3	13,7	15,2	17,4
Power input (4)	kW	1,91	2,85	2,85	3,60	3,70	5,10	4,52	5,32
COP (4)	W/W	3,12	3,07	3,07	3,22	3,05	3,17	3,37	3,27
Heating capacity (11)	kW	5,87	9,05	9,05	12,0	12,3	13,3	14,7	16,7
Power input (11)	kW	2,29	3,40	3,40	4,60	4,75	5,10	5,17	6,04
COP (11)	W/W	2,57	2,66	2,66	2,62	2,59	2,58	2,83	2,76
Heating capacity (12)	kW	4,50	7,93	7,93	8,52	8,68	10,7	12,94	12,56
Power input (12)	kW	1,61	2,66	2,66	3,01	3,02	3,49	4,44	4,38
COP (12)	W/W	2,81	2,98	2,98	2,84	2,87	3,07	2,91	2,88
SCOP (6)	W/W	4,74	5,07	5,07	4,71	4,63	4,91	4,85	4,76
Water flow rate (3)	L/s	0,29	0,44	0,44	0,58	0,58	0,71	0,78	0,87
Energy efficiency - water 35°C / 55°C bassa / medium temperature	Class	A+++ / A++	A+++ / A+++	A+++ / A+++	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++
Compressor type		Twin Rotary DC Inverter							
Number of compressors	no.	1	1	1	1	1	1	1	1
Refrigerant oil (type)	A	PZ46M	PZ46M	PZ46M	PZ46M	VG60	VG60	PZ46M	PZ46M
Oil charge (quantity)	L	0,45	0,52	0,52	0,90	0,9	0,9	0,9	0,9
Refrigerant type		R290							
Refrigerant charge (7)	kg	0,43	0,75	0,75	1,00	1,00	1,27	1,27	1,27
Refrigerant quantity in tonnes of CO ₂ equivalent (7)	Ton	0,000009	0,000015	0,000015	0,000020	0,000020	0,000025	0,000025	0,000025
Design pressure (high/low) heat pump mode	bar	30,3/0,3	30,3/0,3	30,3/0,3	30,3/0,3	30,3/0,3	30,3/0,3	30,3/0,3	30,3/0,3
Design pressure (high/low) chiller mode	bar	30,3/2	30,3/2	30,3/2	30,3/2	30,3/2	30,3/2	30,3/2	30,3/2
Internal heat exchanger type		Plate type							
No. of indoor heat exchangers	no.	1	1	1	1	1	1	1	1
Water content	L	0,94	1,69	1,69	1,69	1,69	1,69	1,69	1,69
Water content of the hydronic circuit	L	2,2	2,2	2,2	3,7	3,7	3,7	3,7	3,7
Hydraulic connections	inch	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"
Minimum water volume (8)	L	65	95	95	125	125	155	155	155
Sound power standard Lw (9)	dB(A)	66	66	66	71	71	72	72	73
Sound power Lw SL (9)	dB(A)	64	64	64	69	69	70	70	71
Sound power Lw SSL (9)	dB(A)	-	-	-	-	-	-	-	-
Sound power Lw EXSL / EXSSL (9)	dB(A)	-	-	-	-	-	-	-	-
Sound pressure at 10 m distance Lp standard (10)	dB(A)	34,7	34,7	34,7	39,6	39,6	40,6	40,6	41,6
Sound pressure at 10 m distance Lp SL (10)	dB(A)	32,7	32,7	32,7	37,6	37,6	38,6	38,6	39,6
Sound pressure at 10 m distance Lp SSL (10)	dB(A)	-	-	-	-	-	-	-	-
Sound pressure at 10 m distance Lp EXSL / EXSSL (10)	dB(A)	-	-	-	-	-	-	-	-
Power supply		230V/1/50Hz		400V/3/50Hz	230V/1/50Hz	400V/3/50Hz	230V/1/50Hz	400V/3/50Hz	
Maximum absorbed power	kW	2,9	4,4	4,4	5,1	5,2	6,4	7,7	8,2
Maximum absorbed current	A	14,4	21,4	6,7	25,8	9,5	28,5	15,8	16,5
Maximum power input with antifreeze kit	kW	3,0	4,6	4,6	5,3	5,3	6,5	7,9	8,3
Maximum current draw with antifreeze kit	A	15,0	22,0	7,3	26,4	10,1	29,1	16,4	17,1

(1) Cooling: outdoor air temperature 35 °C; inlet/outlet water temperature 12/7 °C.

(2) Cooling: outdoor air temperature 35 °C; inlet/outlet water temperature 23/18 °C.

(3) Heating: outdoor air temperature 7 °C d.b.; inlet/outlet water temperature 30/35 °C.

(4) Heating: outdoor air temperature 7 °C d.b.; 6 °C w.b.; water inlet/outlet temp. 47/55 °C.

(5) Cooling: low temperature, variable output, constant flow rate.

(6) Heating: average climate conditions; T_{biv} = -7 °C; low temperature, variable output, constant flow rate.

(7) Indicative data, subject to change. For the correct data, always refer to the technical nameplate on the unit.

(8) Calculated for a 10 °C decrease in system water temperature with a defrost cycle lasting 6 minutes.

(9) Sound power: mode (1); value determined on the basis of measurements carried out in accordance with standard UNI EN ISO 9614-1.

(10) Sound pressure: value calculated from the sound power level in condition (9) using standard UNI EN ISO 3744:2010.

(11) Heating: outdoor air temperature 7 °C d.b.; 6 °C w.b.; inlet/outlet water temperature 55/65 °C.

(12) Heating: outdoor air temperature -7 °C d.b.; -8 °C w.b.; water inlet/outlet temp. 30/35 °C.

** Preliminary data. Available from: summer 2026



e-PRO

Wired Remote control, Wi-Fi connected

STANDARD: sizes 0106/0127

ACCESSORY: sizes 0240/0250

		0121	0123	0125	0127	0240	0250
Cooling capacity (1)	kW	17,4	18,9	19,8	22,3	28,9	34,1
Power input (1)	kW	5,26	5,89	6,19	7,19	9,20	11,0
EER (1)	W/W	3,31	3,21	3,20	3,10	3,14	3,10
Cooling capacity (2)	kW	19,6	21,0	25,3	27,9	34,5	37,0
Power input (2)	kW	4,02	4,38	5,32	6,43	8,1	8,5
EER (2)	W/W	4,88	4,79	4,76	4,34	4,26	4,34
SEER (5)	W/W	5,27	5,27	4,94	4,84	4,86	4,80
Water flow rate (1)	L/s	0,83	0,90	0,95	1,07	1,38	1,63
Heating capacity (3)	kW	21,0	22,8	24,8	27,0	40,1	50,0
Input power (3)	kW	4,31	4,78	5,37	6,21	9,8	11,9
COP (3)	W/W	4,87	4,77	4,62	4,35	4,10	4,20
Heating capacity (4)	kW	19,6	21,6	23,2	26,3	38,0	47,9
Power input (4)	kW	6,13	6,79	7,66	8,74	13,1	16,5
COP (4)	W/W	3,20	3,18	3,03	3,01	2,90	2,90
Heating capacity (11)	kW	19,7	21,2	24,1	25,8	38,4	45,8
Power input (11)	kW	7,38	7,97	9,56	10,3	16,0	18,8
COP (11)	W/W	2,67	2,66	2,52	2,50	2,40	2,44
Heating capacity (12)	kW	17,5	18,6	19,5	21,1	34,6	38,1
Power input (12)	kW	6,05	6,71	7,19	7,55	13,78	15,2
COP (12)	W/W	2,89	2,77	2,71	2,79	2,51	2,52
SCOP (6)	W/W	4,86	4,72	4,49	4,46	4,19	4,19
Water flow rate (4)	L/s	0,59	0,65	0,69	0,79	1,14	1,43
Energy efficiency - water 35°C / 55°C bassa / medium temperature	Class	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++	A++ / A++	A++ / A++
Compressor type	-	Scroll DC Inverter					
Number of compressors	-	1	1	1	1	2	2
Refrigerant oil (type)	-	PZ46M	PZ46M	PZ46M	PZ46M	PZ46M	PZ46M
Refrigerant oil (quantity)	mL	900	900	900	900	1800	1800
Refrigerant type	-	R290				R290	
Refrigerant charge (7)	kg	1,7	1,7	2,1	2,1	3,15	3,50
Refrigerant quantity in tons of CO ₂ equivalent (7)	Ton	0,000034	0,000034	0,000042	0,000042	0,000063	0,000070
Operating pressure in chiller (high/low)	bar	30,3 / 1,7				30,3 / 1,7	
Operating pressure in heat pump mode (high/low)	bar	30,3 / 0,7				30,3 / 0,7	
Internal heat exchanger type	-	Plate / BPHE					
No. of indoor heat exchangers	-	1	1	1	1	1	1
Water content	L	1,71	1,71	2,07	2,07	2,80	3,48
Water content of hydronic circuit	L	3,6	3,6	4,0	4,0	4,5	5,2
Hydraulic connections	inch	1" 1/4 M	1" 1/4 M	1" 1/4 M	1" 1/4 M	1" 1/2 (DN 40)	1" 1/2 (DN 40)
Minimum water volume (8)	L	175	175	220	225	365	415
Sound power standard Lw (9)	dB(A)	72	73	75	76	82	83
Sound power Lw SL (9)	dB(A)	-	-	-	-	81	82
Sound power Lw SSL (9)	dB(A)	70	71	73	74	79	80
Sound power Lw EXSL / EXSSL (9)	dB(A)	-	-	-	-	80 / 78	81 / 79
Sound pressure at 10 m distance Lp standard (10)	dB(A)	41	42	44	45	50	51
Sound pressure at 10 m distance Lp SL (10)	dB(A)	-	-	-	-	49	50
Sound pressure at 10 m distance Lp SSL (10)	dB(A)	39	40	42	43	47	48
Sound pressure at 10 m distance Lp EXSL / EXSSL (10)	dB(A)	-	-	-	-	48 / 46	49 / 47
Power supply	-	400V/3P+N+T/50Hz					
Maximum absorbed power	kW	11	11	13	13	23	27
Maximum absorbed current	A	19	19	21	21	37	44
Maximum power input with antifreeze kit	kW	11	11	13	13	23	27
Maximum current draw with antifreeze kit	A	19	19	22	22	38	45

(1) Cooling: outdoor air temperature 35 °C; inlet/outlet water temperature 12/7 °C.

(2) Cooling: outdoor air temperature 35 °C; inlet/outlet water temperature 23/18 °C.

(3) Heating: outdoor air temperature 7 °C d.b. 6 °C w.b.; inlet/outlet water temperature 30/35 °C.

(4) Heating: outdoor air temperature 7 °C d.b. 6 °C w.b.; water inlet/outlet temp. 47/55 °C.

(5) Cooling: low temperature, variable output, constant flow rate.

(6) Heating: average climate conditions; Thiv = -7 °C; low temperature, variable output, constant flow rate.

(7) Indicative data, subject to change. For the correct data, always refer to the technical nameplate on the unit.

(8) Calculated for a 10 °C decrease in system water temperature with a defrost cycle lasting 6 minutes.

(9) Sound power: mode (1); value determined on the basis of measurements carried out in accordance with standard UNI EN ISO 9614-1.

(10) Sound pressure: value calculated from the sound power level in condition (9) using standard UNI EN ISO 3744:2010.

(11) Heating: outdoor air temperature 7 °C d.b. 6 °C w.b.; inlet/outlet water temperature 55/65 °C.

(12) Heating: outside air temperature -7 °C bs -8 °C bu; inlet/outlet water temperature 30/35 °C.