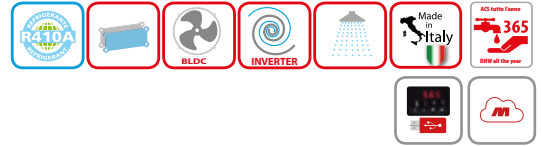




66 kW ÷ 115 kW

i-MAX

Chillers/heat pumps with dual refrigerant circuit and maximum range of partialization



Efficienza energetica = A++
Energy efficiency = A++



<p>Hi-T</p> <p>Compatible Compatible</p>	<p>Risparmio energetico rispetto ai concorrenti</p> <p>30%</p> <p>Energy savings compared to competitors</p>	<p>Acqua fino a Water up to</p> <p>65°C</p> <p>con resistenza with resistance</p>
<p>DC Inverter</p>	<p>OK</p> <p>Conto termico 2.0</p>	<p>Fino al</p> <p>65%</p> <p>Recupero fiscale*</p>

Continuous partialization up to 6% of the power

VERSIONS

i-MAX Chillers/heat pumps with dual refrigerant circuit and maximum range of partialization

TECHNICAL CHARACTERISTICS

The i-MAX series reverse cycle heat pumps are designed for applications in commercial and industrial sectors, are most versatile and can operate in heat pump mode with the possibility of producing hot water at a temperature up to 65°C for environmental heating and/or domestic uses.

The use of scroll compressors technology, specifically designed for R410A, matched with an INVERTER DC brushless motor compressor; the fans are driven by inverter DC motors, as well as the integrated circulators with variable water flow and the electronic expansion valve together optimize the energy consumption and the operational efficiency of the whole system.

CARPENTRY

The i-MAX chillers/heat pump units are made up of hot-galvanized sheet metal, painted with polyurethane powder enamels at 180°C in order to ensure the best resistance against atmospheric agents.

ACCESSORIES

- CI6** AC inverter pump (included GI accessory)
- CI7** AC integrated pump
- KA** Antifreeze kit
- GI** Plant management module
- SL** Silencing
- SSL** Super Silencing
- TR2** Anti-corrosion fanguard treatment
- IM** Protection module
- CM** Serial Communication Module for Modbus Supervisor
- HIT2** Multifunction touch screen remote controller
- AG** Rubber shock absorbers
- DSFR** Sequence control device, phase failure + Minimum and Maximum voltage relay
- Plug-in WiFi** WiFi module to connect the unit to a local WiFi network
- RFC** Remote fancoil control (Hi-T control required)
- i-CR** Remote wall controller

V.415 control board

New control logic and display interface installed on all new Maxa units generation i-HP 0135-0250F-0270 (from July on the entire i-HP range). Allows rapid maintenance with parameter and firmware updates from USB device. By the implementation of new logics it permit the increase of memory.



FAN

The type of the fan is axial-flow with aluminum aerofoil blades of fibre. It is statically and dynamically balanced and supplied with fan grill for protection and locking). The electric fan motor used in this series is modulated by inverter, directly coupled and equipped with integrated thermal protection. The protection class of the motors is IP X4 according to CEI EN 60335-2-80 Rule.

USER SIDE HEAT EXCHANGER

The employed user side heat exchanger is made up of AISI 316 stainless steel braze-welded plates type integrating a dual cooling circuit. The user heat exchanger is factory insulated with flexible close cell material and can be equipped with antifreeze heater (KA optional accessory). The evaporator is provided with an immersion temperature sensor, used for antifreeze protection which activates the circulator, even in the case when the unit is in off mode and when the parameters adjusted by the controller have been occurred.

REFRIGERANT CIRCUIT

The refrigerant circuit has been manufactured by means of international primary brands components and according to the UNI EN 13134 Rule concerning welding procedures. The refrigerant gas is R410A. Each refrigerant circuit includes 4 way reverse cycle valve, electronic expansion valve, liquid separator, liquid receivers, auxiliary circuit to reduce the defrosting time, oil recovery circuit, non-return valves, valves of inspection for maintenance and control, safety device (high pressure switch) according to PED regulation, pressure transducers, precision sensors, high capacity filter dryer, mechanical filters.



COMPRESSORS

The compressors are a scroll type, mounted on a rubber material acting as a shock absorber. Each one of the two circuits is equipped with a DC inverter compressor. In this way, the capacity of each circuit can be modulated continuously between the minimum capacity of a single inverter compressor and the sum of the maximum capacities of the whole compressors of the same circuit. On all units of this series, the range of partialization of the output capacity and the energy consumption can reach the 9% of the maximum capacity for the models provided with 4 compressors and up to 6% for the models provided with 6 compressors. The crankcase heater is standard equipment. The compressors can be inspected through the frontal panel of the unit that allows the maintenance of the compressors even if the unit is in operations.



HEAT PUMPS

AIR SIDE HEAT EXCHANGERS

The air side heat exchanger is made up of copper pipes and aluminum fins. The geometry of these condensers guarantees a low air side pressure drop and, then the possibility of using low rotational speed fan (consequently, low noise emission).

ELECTRIC PANEL

The electric panel is manufactured according to the actual European Union rules, with protection level IP24 and it contains all the electromechanical and electronic components of regulation and control. The terminal board in the electric panel is supplied with voltage free contacts for: remote ON-OFF, winter/summer commutation, domestic hot water temperature sensor, and for the remote control panel. The addition of the GI optional module allows further management of the plant.



CONTROL SYSTEM

The i-MAX units are all supplied with a central control unit with a microprocessor for overheating control logic, of the electronic thermostatic valve and of the solenoid valves, the pressure transducers and of the temperature sensors. The CPU manages also the following functions: regulation of the water temperature, antifreeze protection, time setting and compressors startup sequence, reset and management of alarms, fans modulation and pump modulation. Upon request, it is possible to connect the microprocessor to a BMS remote control systems by mean of Modbus protocol. The control system together with the INVERTER technology and the on board sensors continuously monitors and adapts the performance of the inverter compressor, circulating pump and of the fan.

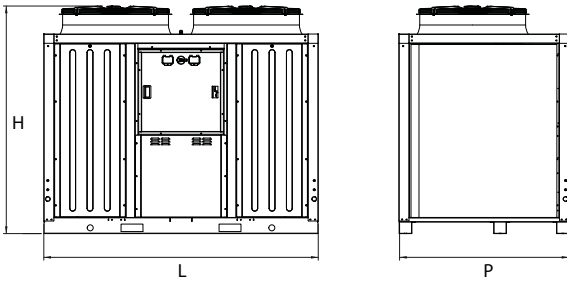


PROTECTION AND CONTROL DEVICES

The units are all supplied with the following protection and control devices: return water temperature sensor, operating and antifreeze sensor, high and low pressure transducers, compressor inlet and outlet temperature sensors, fans thermal protection device, water flow switch installed on water side, high pressure HP flow switch.

HYDRAULIC CIRCUIT

The chillers/heat pump units of i-MAX series are supplied with an integrated hydronic kit which includes: dual refrigerant circuit plate heat exchanger and a single hydraulic circuit, a pressure gauge at the inlet and a fitting on the heat exchanger outlet for evaluating the load losses, service valve and flow switch for protection, automatic air release valve and safety valve (6 bar). The version with integrated circulator, provides a pump with AC motor driven by an inverter for regulating the water flow rate between 60 and 100% , suitable also for the utilization of chilled water and directly managed by the on-board unit controller.



Dimensioni - Dimensions		0466	0475	0485
L	mm	2.250	2.250	2.250
P	mm	1.170	1.170	1.170
H	mm	1.985	1.985	1.985
Peso - Weight	kg	903	915	971

i-MAX

0466

0475

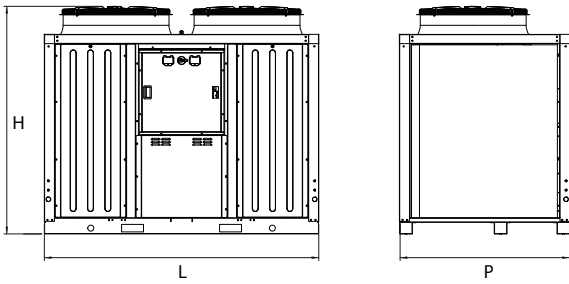
0485

i-MAX

(1) Pot. frigorifera / Cooling capacity / Puissance frigorifique	kW	80,2	90,2	103,1	kW	Kühlleistung / Pot. frigorífica / Capacitate de racire (1)
(1) Pot. assorbita / Power input / Puiss. absorbée	kW	21,8	24,7	28,3	kW	Leistungsaufnahme / Pot. absorbida / Put. absorbida (1)
(1) E.E.R.	W/W	3,67	3,66	3,65	W/W	E.E.R. (1)
(2) Pot. frigorifera / Cooling capacity / Puissance frigorifique	kW	65,6	74,6	83,9	kW	Kühlleistung / Pot. frigorífica / Capacitate de racire (2)
(2) Pot. assorbita / Power input / Puiss. absorbée	kW	22,4	25,6	28,9	kW	Leistungsaufnahme / Pot. absorbida / Put. absorbida (2)
(2) E.E.R.	W/W	2,93	2,92	2,9	W/W	E.E.R. (2)
(2) SEER	W/W	4,31	4,37	4,40	W/W	SEER (2)
(3) Pot. calorifica / Heating capacity / Puissance calorifique	kW	68,3	74,7	85,6	kW	Heizleistung / Potencia calorífica / Capacitate de incalzire (3)
(3) Pot. assorbita / Power input / Puiss. absorbée	kW	16,8	18,4	21,2	kW	Leistungsaufnahme / Pot. absorbida / Put. absorbida (3)
(3) C.O.P.	W/W	4,07	4,06	4,05	W/W	C.O.P. (3)
(4) Pot. calorifica / Heating capacity / Puissance calorifique	kW	65,8	71,0	82,1	kW	Heizleistung / Potencia calorífica / Capacitate de incalzire (4)
(4) Pot. assorbita / Power input / Puiss. absorbée	kW	20,4	22,1	25,6	kW	Leistungsaufnahme / Pot. absorbida / Put. absorbida (4)
(4) C.O.P.	W/W	3,22	3,21	3,2	W/W	C.O.P. (4)
(5) SCOP	W/W	3,46	3,76	3,40	W/W	SCOP (5)
Efficienza energetica / Energy efficiency / Efficacité énergétique		A+	A+	A+		Energieeffizienz / Eficiencia Energética / Eficiencia Energética
(6) SCOP	W/W	2,29	2,52	2,17	W/W	SCOP (6)
Efficienza energetica / Energy efficiency / Efficacité énergétique		A	A+	A		Energieeffizienz / Eficiencia Energética / Eficiencia Energética
Typo compressore / Compressor type / Compresseur type		2 DC Inverter + 2 On Off				Verdichter Typ / Compresor tipo / Tip compresor
(2) Ventilatori / Fans / Ventilateurs	n° x kW	2x2,4	2x2,7	2x3,0	n° x kW	Ventilatoren / Ventiladores / Ventilatoare (2)
Portata aria / Air flow / Débit d'air	m³/s	2x6,5	2x7	2x7,5	m³/s	Luftdurchflussmenge / Caudal de aire / Debit aer
Alimentazione / Power supply / Alimentation	V~, Ph, Hz	400, 3, 50			V~, Ph, Hz	Versorgung / Alimentación / Alimentare
(7) Pot. sonora / Sound power / Puissance sonore	dB(A)	79	79,5	80	dB(A)	Geräuschentwicklung / Nivel de ruido / Nivel de zgomot (7)
(7) Pot. sonora / Sound power / Puissance sonore (SSL)	dB(A)	76,7	77,2	77,7	dB(A)	(SSL) Geräuschentwicklung / Nivel de ruido / Nivel de zgomot (7)
(8) Pressione sonora / Sound pressure / Émission sonore	dB(A)	51	51,5	51		Geräuschentwicklung / Nivel de ruido / Rumorosidade (8)
Temp. esterna / Outdoor temp / Tem. extérieure	°C	-15/+46			°C	Außentemperatur / Temp. esterna / Temp. externa
(2) Potenza pompa / Pump power / Puissance pompe	kW	1,10	1,10	1,10	kW	Nominalleistung der Pumpe / Pot. bomba / Put. pompa (2)
(2) Portata acqua / Water flow / Débit d'eau	L/s	3,13	3,57	4,01	L/s	Wasserdurchflussmenge / Caud. de agua / Debit apa (2)
(2) Prev. utile / Pump head / Hauteur d'élév. utile	kPa	83	79	78	kPa	Nutzbare Förderhöhe / Altura útil / Presiune disponibila (2)
Attacchi idraulici / Water connections / Rac. hydrauliques	inch	2"1/2 F			inch	Hyd. Anschlüsse / Enganches hidr. / Racorduri hidraulice
Min. volume acqua / Min. volume of water / Volume min. d'eau	l	200			l	Min Wasser im Tank / Min. volumen de agua / Min. volume da agua
Peso in esercizio / Operation weight / Poids en exercice	kg	923	946	996	kg	Betriebsgewicht / Peso en ejercicio / Greutate in exercitiu
Peso lordo / Gross weight / Poids brut	kg	943	955	1011	kg	Bruttogewicht / Peso bruto / Greutate brut

Preliminary data

- (1) Chilled water from 23 to 18 °C, ambient air temperature 35 °C.
- (2) Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
- (3) Heated water from 30 to 35 °C, ambient air temperature 7 °C d.b./6 °C w.b.
- (4) Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
- (5) Heating: average climatic conditions; T_{biv} = -7 °C; Water Temp ing./usc. 30/35 °C
- (6) Heating: average climatic conditions; T_{biv} = -7 °C; Water Temp ing./usc. 50/55 °C
- (7) Sound power (heating mode): Advantix determines the value based on measurements
- (8) Sound pressure level 10 m away, obtained by internal measurements carried out following the indications of the ISO 3744, with the sound source positioned in free field on a reflecting plane, according to UNI EN ISO 9614-2, in compliance with the requirements of the Eurovent certification.



Dimensioni - Dimensions **0695** **06105** **06115**

		0695	06105	06115
L	mm	2.250	2.250	2.250
P	mm	1.170	1.450	1.450
H	mm	1.985	2.010	2.010
Peso - Weight	kg	986	1078	1092

i-MAX

0695

06105

06115

i-MAX

(1) Pot. frigorifera / Cooling capacity / Puissance frigorifique	kW	113,2	127,4	139,5	kW	Kühlleistung / Pot. frigorifica / Capacitate de racire (1)
(1) Pot. assorbita / Power input / Puiss. absorbée	kW	31	34,9	38,2	kW	Leistungsaufnahme / Pot. absorbida / Put. absorbita (1)
(1) E.E.R.	W/W	3,65	3,65	3,65	W/W	E.E.R. (1)
(2) Pot. frigorifera / Cooling capacity / Puissance frigorifique	kW	94,6	105,7	114,4	kW	Kühlleistung / Pot. frigorifica / Capacitate de racire (2)
(2) Pot. assorbita / Power input / Puiss. absorbée	kW	32,5	36,4	39,5	kW	Leistungsaufnahme / Pot. absorbida / Put. absorbita (2)
(2) E.E.R.	W/W	2,91	2,9	2,9	W/W	E.E.R. (2)
(2) SEER	W/W	4,37	4,33	4,40	W/W	SEER (2)
(3) Pot. calorifica / Heating capacity / Puissance calorifique	kW	93,3	102,5	111,5	kW	Heizleistung / Potencia calorifica / Capacitate de incalzire (3)
(3) Pot. assorbita / Power input / Puiss. absorbée	kW	23	25,3	28,6	kW	Leistungsaufnahme / Pot. absorbida / Put. absorbita (3)
(3) C.O.P.	W/W	4,06	4,05	3,9	W/W	C.O.P. (3)
(4) Pot. calorifica / Heating capacity / Puissance calorifique	kW	88,6	97,5	108,3	kW	Heizleistung / Potencia calorifica / Capacitate de incalzire (4)
(4) Pot. assorbita / Power input / Puiss. absorbée	kW	27,5	30,4	36,2	kW	Leistungsaufnahme / Pot. absorbida / Put. absorbita (4)
(4) C.O.P.	W/W	3,22	3,2	3	W/W	C.O.P. (4)
(5) SCOP	W/W	3,37	3,78	3,37	W/W	SCOP (5)
Efficienza energetica / Energy efficiency / Efficacité énergétique		A+	A+	A+		Energieeffizienz / Eficiencia Energética / Eficiencia Energética
(6) SCOP	W/W	2,12	2,35	2,16	W/W	SCOP (6)
Efficienza energetica / Energy efficiency / Efficacité énergétique		A	A	A		Energieeffizienz / Eficiencia Energética / Eficiencia Energética
Tipo compressore / Compressor type / Compresseur type		2 DC Inverter + 4 On Off				Verdichter Typ / Compresor tipo / Tip compresor
(2) Ventilatori / Fans / Ventilateurs	n° x kW	2x3,4	2x3,8	2x4,1	n° x kW	Ventilatoren / Ventiladores / Ventilatoare (2)
Portata aria / Air flow / Débit d'air	m³/s	2x8	2x8,5	2x9	m³/h	Luftdurchflussmenge / Caudal de aire / Debit aer
Alimentazione / Power supply / Alimentation	V~, Ph, Hz	400, 3, 50			V~, Ph, Hz	Versorgung / Alimentación / Alimentare
(7) Pot. sonora / Sound power / Puissance sonore	dB(A)	81	83	84	dB(A)	Geräuschentwicklung / Nivel de ruido / Nivel de zgomot (7)
(7) Pot. sonora / Sound power / Puissance sonore (SSL)	dB(A)	78,7	80,2	81,2	dB(A)	(SSL) Geräuschentwicklung / Nivel de ruido / Nivel de zgomot (7)
(8) Pressione sonora / Sound pressure / Émission sonore	dB(A)	53	55	56		Geräuschentwicklung / Nivel de ruido / Rumorosidade (8)
Temp. esterna / Outdoor temp / Tem. extérieure	°C	-15/+46			°C	Außentemperatur / Temp. esterna / Temp. externa
(2) Potenza pompa / Pump power / Puissance pompe	kW	1,32	1,32	1,32	kW	Nominalleistung der Pumpe / Pot. bomba / Put. pompa (2)
(2) Portata acqua / Water flow / Débit d'eau	L/s	4,52	5,05	5,47	L/s	Wasserdurchflussmenge / Caud. de agua / Debit apa (2)
(2) Prev. utile / Pump head / Hauteur d'élév. utile	kPa	81	82	77	kPa	Nutzbare Förderhöhe / Altura útil / Presiune disponibila (2)
Attacchi idraulici / Water connections / Rac. hydrauliques	inch	2"1/2 F			inch	Hyd. Anschlüsse / Enganches hidr. / Racorduri hidraulice
Min. volume acqua / Min. volume of water / Volume min. d'eau	l	260			l	Min Wasser im Tank / Min. volumen de agua / Min. volume da agua
Peso in esercizio / Operation weight / Poids en exercice	kg	1011	1105	1120	kg	Betriebsgewicht / Peso en ejercicio / Greutate in exercitiu
Peso lordo / Gross weight / Poids brut	kg	1026	1128	1142	kg	Bruttogewicht / Peso bruto / Greutate brut

Preliminary data

- (1) Chilled water from 23 to 18 °C, ambient air temperature 35 °C.
- (2) Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
- (3) Heated water from 30 to 35 °C, ambient air temperature 7 °C db/6 °C w.b.
- (4) Heated water from 40 to 45 °C, ambient air temperature 7 °C db/6 °C w.b.
- (5) Heating: average climatic conditions; T_{bw} = -7 °C; Water Temp. in./usc. 30/35 °C
- (6) Heating: average climatic conditions; T_{bw} = -7 °C; Water Temp. in./usc. 50/55 °C
- (7) Sound power (heating mode); Advantix determines the value based on measurements
- (8) Sound pressure level 10 m away, obtained by internal measurements carried out following the indications of the ISO 3744, with the sound source positioned in free field on a reflecting plane, according to UNI EN ISO 9614-2, in compliance with the requirements of the Eurovent certification.