



MAGIS M4-6-8

Block heat pumps Single-phase Technical Data



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Dear Customer

Congratulations for having chosen a top-quality Immergas product, able to assure well-being and safety for a long period of time. As an Immergas customer you can also count on a Qualified Authorised After-Sales Technical Assistance Centre, prepared and updated to guarantee constant efficiency of your appliance. Read the following pages carefully: you will be able to draw useful tips on the proper use of the device, compliance with which will confirm your satisfaction with the Immergas product.

For assistance and routine maintenance, contact Authorised Technical Service Centres: they have original spare parts and are specifically trained directly by the manufacturer.

The company **IMMERGAS S.p.A.**, with registered office in via Cisa Ligure 95 42041 Brescello (RE), declares that the design, manufacturing and after-sales assistance processes comply with the requirements of standard **UNIENISO 9001:2015**.

For further details on the product CE marking, request a copy of the Declaration of Conformity from the manufacturer, specifying the appliance model and the language of the country.

The manufacturer declines all liability due to printing or transcription errors, reserving the right to make any modifications to its technical and commercial documents without forewarning.

GENERAL RECOMMENDATIONS

- The instruction booklet is an integral and essential part of the product and must be given to the new user in the case of transfer or succession of ownership.
- It must be stored with care and consulted carefully, as all of the warnings provide important safety indications for installation, use and maintenance stages.
- In compliance with the legislation in force, the systems must be designed by qualified professionals, within the dimensional limits established by the Law. Installation and maintenance must be performed in compliance with the regulations in force, according to the manufacturer's instructions and by professionally qualified staff, meaning staff with specific technical skills in the plant sector, as provided for by Law.
- Improper installation or assembly of the Immergas device and/or components, accessories, kits and devices can cause unexpected problems for people, animals and objects. Read the instructions provided with the product carefully to ensure proper installation.
- This instructions manual provides technical information for installing Immergas products. As for the other issues related to the installation of products (e.g. safety at the workplace, environmental protection, accident prevention), it is necessary to comply with the provisions of the standards in force and the principles of good practice.
- All Immergas products are protected with suitable transport packaging.
- The material must be stored in a dry place protected from the weather.
- Maintenance must be carried out by skilled technical staff. For example, the Authorised Service Centre that represents a guarantee of qualifications and professionalism.
- The appliance must only be destined for the use for which it has been expressly declared. Any other use will be considered improper and therefore potentially dangerous.
- If errors occur during installation, operation and maintenance, due to non-compliance with technical laws in force, standards or instructions contained in this booklet (or however supplied by the manufacturer), the manufacturer is excluded from any contractual and extra-contractualliability for any damages and the device warranty is invalidated.
- This manual provides a detailed explanation on the precautions to be taken during use.
- Read this manual carefully before using the wall-mounted control unit to guarantee its proper operation.
- After you have read this manual, keep it for future consultation.
- For further information regarding legislative and statutory provisions relative to the installation of heat pumps, consult the Immergas site at the following address: <u>www.immergas.com</u>

TECHNICALDATA

1

1.1 MEDIUM TEMPERATURE APPLICATIONS

	For medium temperature applications						
			М	edium zone temperatur	es		
Model	Energy efficiency class	Soundpowerofunit	Nominal heat output	Space heating seasonal energy efficiency	For space heating, annual power consumption		
	-	dB	kW	%	kWh		
MAGISM4	A++	55,0	4,4	129,5	2744		
MAGISM6	A++	58,0	5,7	137,9	3345		
MAGIS M8	A++	59,0	6,6	131,5	4056		

	For medium temperature applications						
			(Cold zones temperature	s		
Model	Energy efficiency class	Sound power of unit	Nominal heat output	Space heating seasonal energy efficiency	For space heating, annual power consumption		
	-	dB	kW	%	kWh		
MAGISM4	A++	55,0	3,4	102,1	3159		
MAGISM6	A++	58,0	4,3	111,1	3681		
MAGIS M8	A++	59,0	5,8	112,0	4950		

	For medium temperature applications						
]	Hot zones temperatures	;		
Model	Energy efficiency class	Sound power of unit	Nominal heat output	Space heating seasonal energy efficiency	For space heating, annual power consumption		
	-	dB	kW	%	kWh		
MAGISM4	A++	55,0	5,0	162,4	1621		
MAGISM6	A++	58,0	5,1	164,7	1640		
MAGIS M8	A++	59,0	8,37	176,9	2485		

1.2 LOW TEMPERATURE APPLICATIONS

	For low temperature applications						
			Medium zone temperatures				
Model	Energy efficiency class	Soundpowerofunit	Nominal heat output	Space heating seasonal energy efficiency	For space heating, annual power consumption		
	-	dB	kW	%	kWh		
MAGIS M4	A+++	55,0	5,5	191,0	2351		
MAGIS M6	A+++	58,0	6,8	195,0	2845		
MAGIS M8	A+++	59,0	8,1	205,6	3218		

	For low temperature applications						
			(Cold zones temperature	s		
Model	Energy efficiency class	Soundpowerofunit	Nominal heat output	Space heating seasonal energy efficiency	For space heating, annual power consumption		
	-	dB	kW	%	kWh		
MAGIS M4	A+++	55,0	4,6	159,5	2769		
MAGISM6	A+++	58,0	5,6	165,3	3300		
MAGIS M8	A+++	59,0	7,0	170,0	3976		

	For low temperature applications						
]	Hot zones temperatures	;		
Model	Energy efficiency class	Sound power of unit	No	Spaceheating	For space heating,		
			Nominalheatoutput	seasonal energy efficiency	annual power consumption		
	-	dB	kW	%	kWh		
MAGISM4	A+++	55,0	5,5	255,4	1146		
MAGISM6	A+++	58,0	6,1	259,8	1244		
MAGIS M8	A+++	59,0	8,1	276,6	1551		

2 PRODUCT DATA SHEET

Space heating appliance with heat pump Low temperature medium weather Sound power of unit application		Unit	MAGISM4	MAGISM6	MAGIS M8
	1	dB	55,0	58,0	59,0
Sound power of unit	Medium weather temperature application	dB	55,0	58,0	59,0
Spaceheating	Energy efficiency class 35°C (low temperature application)	-	A+++	A+++	A+++
Spaceheating	Energy efficiency class 55°C (medium temperature application)	-	A++	A++	A++

Medium weather (design temperatur	$e = -10^{\circ}C$)	Unit	MAGISM4	MAGISM6	MAGIS M8
Space heating 35°C	P _{rated} (declared heating capacity) @ -10°C	kW	5,5	6,8	8,1
	Space heating seasonal energy efficiency (η_s)	%	191,0	195,0	205,6
	Annual power consumption	kWh	2351	2845	3218
	P _{rated} (declared heating capacity) @ -10°C	kW	4,4	5,7	6,6
Space heating 55°C	Prated (declared heating capacity) @ kW 5,5 6,8 -10°C Space heating seasonal energy efficiency (η _s) % 191,0 195,0 Annual power consumption kWh 2351 2845 Prated (declared heating capacity) @ kW 4.4 5.7	131,5			
	Annual power consumption	kWh	2744	3345	4056

Low temperature application me conditions	edium weather space heating partial load	Unit	MAGISM4	MAGISM6	MAGIS M8
	P _{dh} (Declared heating capacity)	kW	4,88	6,03	7,18
(A) Condition (-7°C)	COP _d (Declared COP)	-	3,19	3,09	3,35
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	3,05	3,88	4,65
(B) Condition (2°C)	COP _d (Declared COP)	-	4,78	4,85	5,09
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,93	2,39	2,9
(C) Condition (7°C)	COP _d (Declared COP)	-	6,13	6,63	6,82
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,48	1,39	1,63
(D) Condition (12°C)	COP _d (Declared COP)	-	8,05	7,93	8,35
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9

Low temperature application medium v conditions	weather space heating partial load	Unit	MAGISM4	MAGISM6	MAGIS M8
	Tol (operation limit temperature)	°C	-10	-10	-10
(E) T-1 (P _{dh} (Declared heating capacity)	kW	4,41	5,36	6,44
(E) Tol (operation limit temperature)	COP _d (Declared COP)	-	2,86	2,76	3,04
	W _{TOL} (Water heating limit operation)	°C	65	65	65
	T _{blv}	°C	-7	-7	-7
(F) T _{bivalente} temperature	P _{dh} (Declared heating capacity)	kW	4,88	6,03	7,18
	COP _d (Declared COP)	-	3,19	-10 5,36 2,76 65 -7	3,35
Supplementary capacity to P _{design}	$P_{sup}(@T_{designh}:-10^{\circ}C)$	kW	1,11	1,45	1,68

Medium temperature application aver partial load conditions	age weather temperature space heating	Unit	MAGISM4	MAGISM6	MAGIS M8
	P _{dh} (Declared heating capacity)	kW	3,89	5,04	5,84
(A) Condition (-7°C)	COP _d (Declared COP)	-	2,17	2,17	2,16
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	2,38	3,12	3,75
(B) Condition (2°C)	COP _d (Declared COP)	-	3,30	3,51	3,30
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	2,94	2,08	2,42
(C) Condition (7°C)	COP _d (Declared COP)	-	4,41	4,54	4,34
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,32	1,28	1,39
(D) Condition (12°C)	COP _d (Declared COP)	-	5,66	5,59	5,33
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	Tol (operation limit temperature)	°C	-10	-10	-10
	P _{dh} (Declared heating capacity)	kW	3,42	4,52	4,9
(E) for (operation limit temperature)	COP _d (Declared COP)	-	1,91	1,91	1,84
	W _{TOL} (Water heating limit operation)	°C	65	65	65
	T _{blv}	°C	-7	-7	-7
(F) T _{bivalente} temperature	P _{dh} (Declared heating capacity)	kW	3,89	5,04	5,84
	COP _d (Declared COP)	-	2,17	2,17	2,16
Supplementary capacity to P_{design}	P _{sup} (@T _{designh} :-10°C)	kW	0,98	1,18	1,69

Cold weather (Design temperature = -2	2°C)	Unit	MAGISM4	MAGISM6	MAGIS M8
	P _{rated} (declared heating capacity) @ -22°C	kW	4,6	5,6	7,0
Space heating 35°C	Space heating seasonal energy efficiency (η_s)	%	159,5	165,3	170,0
	Annual power consumption	kWh	2769	3300	3976
	P _{rated} (declared heating capacity) @ -22°C	kW	3,4	4,3	5,8
Space heating 55°C	Space heating seasonal energy efficiency (η_s)	%	102,1	111,1	112,0
	Annual power consumption	kWh	3159	3681	4950

Low temperature application cold weat	her space heating partial load conditions	Unit	MAGISM4	MAGISM6	MAGIS M8
	P _{dh} (Declared heating capacity)	kW	2,75	3,42	4,46
(A) Condition (-7°C)	COP _d (Declared COP)	-	3,49	3,59	3,66
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,77	2,06	2,69
(B) Condition (2°C)	COP _d (Declared COP)	-	4,95	5,21	5,20
	C_{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,17	1,46	1,65
(C) Condition (7°C)	COP _d (Declared COP)	-	5,53	6,24	6,53
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,43	1,44	1,65
(D) Condition (12°C)	COP _d (Declared COP)	-	7,67	7,66	7,96
	C_{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	Tol (operation limit temperature)	°C	-22	-22	-22
(T) T-1 (P _{dh} (Declared heating capacity)	kW	2,8	3,48	4,06
(E) Tol (operation limit temperature)	COP _d (Declared COP)	-	1,97	1,96	1,95
	W _{TOL} (Water heating limit operation)	°C	65	65	65
	T _{blv}	°C	-15	-15	-15
(F) T _{bivalente} temperature	P _{dh} (Declared heating capacity)	kW	3,72	4,59	5,69
	COP _d (Declared COP)	-	2,57	2,53	2,83
Supplementary capacity to P _{design}	$P_{sup}(@T_{designh}:-22^{\circ}C)$	kW	1,76	2,15	2,91

Medium temperature application cold conditions	weatherspaceheatingpartialload	Unit	MAGISM4	MAGISM6	MAGIS M8
	P _{dh} (Declared heating capacity)	kW	2,13	2,70	3,86
(A) Condition (-7°C)	COP _d (Declared COP)	-	2,32	2,46	2,48
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,28	1,60	2,21
(B) Condition (2°C)	COP _d (Declared COP)	-	2,99	3,36	3,35
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,01	1,02	1,44
(C) Condition (7°C)	COP _d (Declared COP)	-	3,86	3,94	4,11
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P_{dh} (Declared heating capacity)	kW	1,36	1,37	1,46
(D) Condition (12°C)	COP _d (Declared COP)	-	6,28	6,35	5,92
		-	0,9	0,9	0,9
	$\frac{P_{dh}(\text{Declared heating capacity})}{COP_{d}(\text{Declared COP})} = \frac{2,32}{2,32} = \frac{2,32}{$	-22	-22		
(E) Tol (on anotion limit to me anotion)		kW	1,64	2,09	2,8
(E) Tol (operation limit temperature)	COP _d (Declared COP)	-	1,02	1,13	1,22
	P _{dh} (Declared heating capacity)COP _d (Declared COP)C _{dh} (Degradation coefficient)P _{dh} (Declared heating capacity)COP _d (Declared COP)C _{dh} (Degradation coefficient)P _{dh} (Declared heating capacity)COP _d (Declared COP)C _{dh} (Degradation coefficient)P _{dh} (Declared heating capacity)COP _d (Declared COP)C _{dh} (Degradation coefficient)P _{dh} (Declared heating capacity)COP _d (Declared COP)C _{dh} (Degradation coefficient)P _{dh} (Declared heating capacity)COP _d (Declared COP)C _{dh} (Degradation coefficient)Tol (operation limit temperature)P _{dh} (Declared heating capacity)COP _d (Declared COP)W _{TOL} (Water heating limit operation)T _{blv} P _{dh} (Declared heating capacity)	°C	65	65	65
	T _{blv}	°C	-15	-15	-15
(F) T _{bivalente} temperature	P _{dh} (Declared heating capacity)	kW	2,74	3,47	4,71
	COP _d (Declared COP)	-	1,74	1,86	1,9
Supplementary capacity to P_{design}	$P_{sup}(@T_{designh}:-22^{\circ}C)$	kW	1,72	2,17	2,97

Warm weather (Design temperature = 2	°C)	Unit	MAGISM4	MAGISM6	MAGIS M8
	P_{rated} (declared heating capacity) @ -2°C	kW	5,5	6,1	8,1
Space heating 35°C	Space heating seasonal energy efficiency (η_s)	%	255,4	259,8	276,6
	Annual power consumption	kWh	1146	1244	1551
	P _{rated} (declared heating capacity) @ -2°C	kW	5,0	5,1	8,37
vace heating 35°C	Space heating seasonal energy efficiency (η_s)	%	162,4	164,7	176,9
	Annual power consumption	kWh	1621	1640	2485

Low temperature application warm we tions	ather space heating partial load condi-	Unit	MAGISM4	MAGISM6	MAGIS M8
	P _{dh} (Declared heating capacity)	kW	5,34	5,93	7,56
(B) Condition (2°C)	COP _d (Declared COP)	-	3,94	3,91	3,98
	$\begin{array}{c} & \begin{array}{c} & & \\ & & \\ \hline & & \\ & \hline & \hline$	-	0,9	0,9	0,9
	P_dh (Declared heating capacity)KWCOP_d (Declared COP)-C_dh (Degradation coefficient)-P_dh (Declared heating capacity)KWCOP_d (Declared COP)-C_dh (Degradation coefficient)-P_dh (Declared heating capacity)kWCOP_d (Declared COP)-C_dh (Degradation coefficient)-P_dh (Declared heating capacity)kWCOP_d (Declared COP)-C_dh (Degradation coefficient)-Tol (operation limit temperature)°CP_{dh} (Declared heating capacity)kWCOP_d (Declared COP)-W_{TOL} (Water heating limit operation)°CT_{blv}°CP_{dh} (Declared heating capacity)kWCOP_d (Declared COP)-C_dh (Declared heating capacity)kWCOP_d (Declared COP)-C_dh (Declared heating capacity)kWCOP_d (Declared heating capacity)kW	3,56	3,93	5,22	
(C) Condition (7°C)	COP _d (Declared COP)	-	5,92	5,89	6,26
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	P_d (Declared COP)-5,925(Degradation coefficient)-0,90(Declared heating capacity)kW1,631 P_d (Declared COP)-7,918(Degradation coefficient)-0,90(operation limit temperature)°C2	1,79	2,62	
) Condition (12°C)	COP _d (Declared COP)	-	7,91	8,20	9,23
	ondition (7°C) COP_d (Declared COP) C_{dh} (Degradation coefficient) P_{dh} (Declared heating capacity)Condition (12°C) CoP_d (Declared COP) C_{dh} (Degradation coefficient) C_{dh} (Degradation coefficient) Tol (operation limit temperature) P_{dh} (Declared heating capacity)	-	0,9	0,9	0,9
	Tol (operation limit temperature)	°C	2	2	2
	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	kW	5,34	5,93	7,56
(E) 101(operation limit temperature)	COP _d (Declared COP)	-	3,94	3,91	3,98
$T_{bivalente} temperature \begin{array}{ c c c } \hline & & & \hline & \hline & & \hline & \hline & \hline & \hline & & \hline & & \hline \hline & \hline & \hline & \hline & \hline & \hline & \hline \hline & \hline & \hline & \hline \hline & \hline & \hline \hline & \hline & \hline \hline \hline \hline \hline & \hline \hline\hline \hline$	W _{TOL} (Water heating limit operation)	°C	65	65	65
	UnitMAGISM4MAGIS P_{dh} (Declared heating capacity)kW5,345,93 COP_d (Declared COP)-3,943,91 C_{dh} (Degradation coefficient)-0,90,9 P_{dh} (Declared heating capacity)kW3,563,93 COP_d (Declared COP)-5,925,89 C_{dh} (Degradation coefficient)-0,90,9 P_{dh} (Declared heating capacity)kW1,631,79 COP_d (Declared COP)-7,918,20 C_{dh} (Degradation coefficient)-0,90,9 C_{dh} (Degradation coefficient)-0,90,9 C_{dh} (Declared COP)-7,918,20 C_{dh} (Degradation coefficient)-0,90,9 C_{dh} (Degradation coefficient)-0,90,9 C_{dh} (Declared COP)-3,943,91 W_{TOL} (Water heating capacity)kW5,345,93 COP_d (Declared COP)-3,943,91 W_{TOL} (Water heating limit operation)°C6565 Γ_{blv} °C77 P_{dh} (Declared heating capacity)kW3,563,93 COP_d (Declared COP)-5,925,89	7	7		
(F) T _{bivalente} temperature		kW	3,56	3,93	5,22
	COP _d (Declared COP)	-	5,92	5,89	6,26
Supplementary capacity to P_{design}	$P_{sup}(@T_{designh}:2^{\circ}C)$	kW	0,18	0,18	0,55

Medium temperature application conditions	warm weather space heating partial load	Unit	MAGISM4	MAGISM6	MAGIS M8
	P _{dh} (Declared heating capacity)	kW	4,83	5,02	7,55
(B) Condition (2°C)	COP _d (Declared COP)	-	2,51	2,48	2,59
	C _{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	3,22	3,31	5,38
(C) Condition (7°C)	COP _d (Declared COP)	-	3,68	3,67	4,01
	C_{dh} (Degradation coefficient)	-	0,9	0,9	0,9
	P _{dh} (Declared heating capacity)	kW	1,47	1,60	2,31
(D) Condition (12°C)		-	5,15	5,29	5,55
	C_{dh} (Degradation coefficient)	-	0,9	0,9	0,9

Medium temperature application warm conditions	n weather space heating partial load	Unit	MAGISM4	MAGISM6	MAGIS M8
	Tol (operation limit temperature)	°C	2	2	2
(E) Tol (operation limit temperature)	P _{dh} (Declared heating capacity)	kW	4,83	5,02	7,55
	COP _d (Declared COP)	-	2,51	2,48	2,59
	W _{TOL} (Water heating limit operation)	°C	65	65	65
	T _{blv}	°C	7	7	7
(F) T _{bivalente} temperature	P _{dh} (Declared heating capacity)	kW	3,22	3,31	5,38
	COP _d (Declared COP)	-	3,68	3,67	4,01
Supplementary capacity to P _{design}	$P_{sup}(@T_{designh}:2^{\circ}C)$	kW	0,18	0,12	0,82

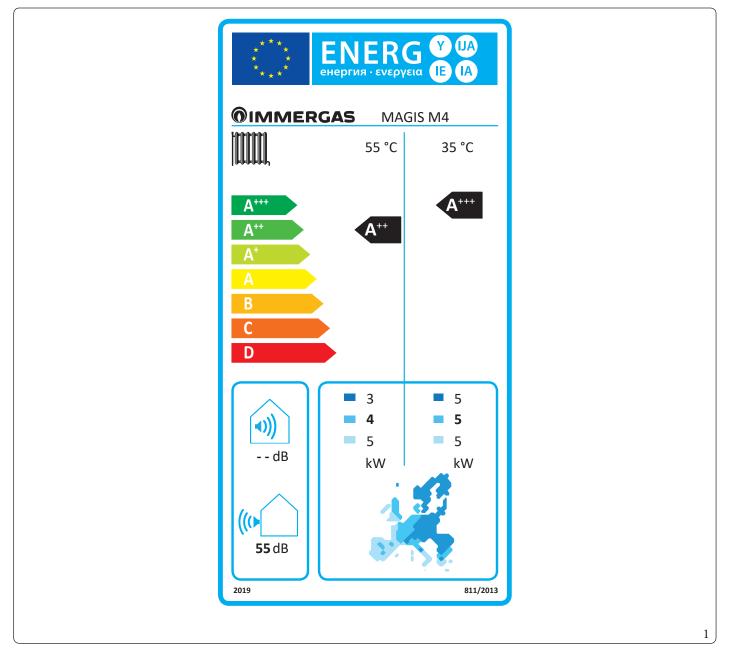
		Unit	MAGISM4	MAGISM6	MAGIS M8
	Air-water heat pump	Y/N	yes	yes	yes
	Water-water heat pump	Y/N	no	no	no
Description of the product	Brine to water heat pump	Y/N	no	no	no
	Low temperature heat pump	Y/N	no	no	no
	Equipped with additional heater	Y/N	no	no	no
	Mixed central heating device with heat pump:	Y/N	no	no	no
Air-water unit	Nominal air flow	m³/h	2770	2770	4030
Brine/water to water unit	Water/brine at nominal flow rate (H/E outdoor)		/	/	/

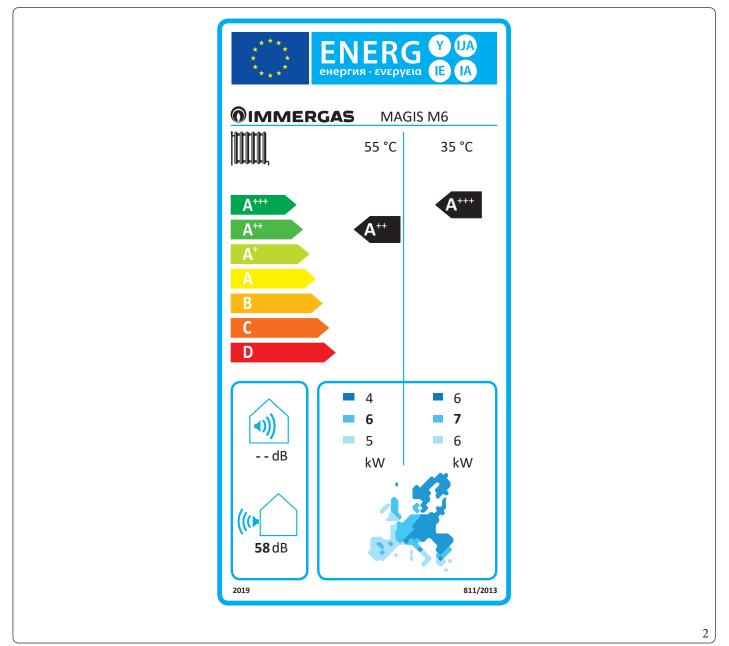
Space heating appliance with heat pump	p	Unit	MAGISM4	MAGISM6	MAGIS M8
	Capacity control	-	VARIABLE	VARIABLE	VARIABLE
	P_{off} (Power consumption OFF Mode)	kW	0,014	0,014	0,014
	P _{to} (Power consumption with thermo- stat at OFF Mode)	kW	0,024	0,024	0,024
Other	P _{sb} (Power consumption in Standby Mode)	kW	0,014	0,014	0,014
	P _{CK} (Electric crankcase heater model)	kW	0,000	0,000	0,000
	Q_{elec} (Daily electricity consumption)	kWh	/	/	/
	Q _{fuel} (Daily fuel consumption)	kWh	/	/	/

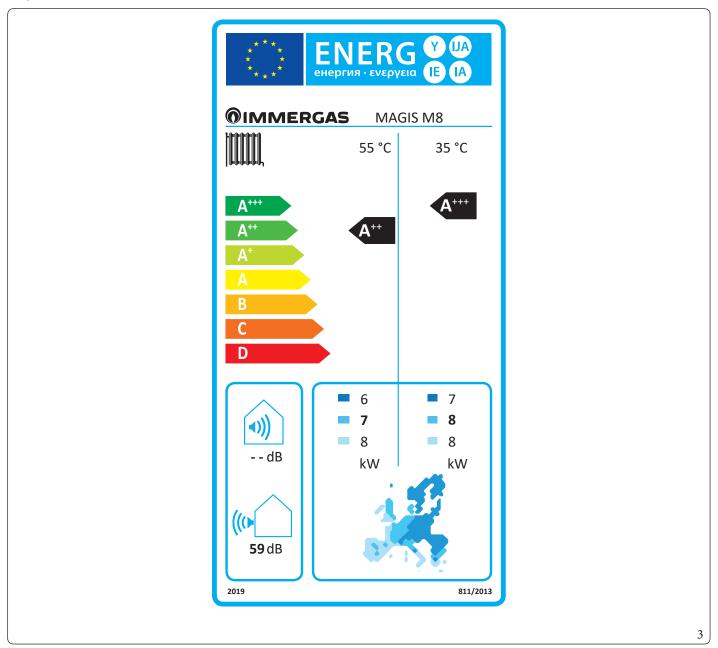
Details and precautions on installation, maintenance and assembly can be found in the use and installation manual. Data of the product data sheets according to the directive on energy labelling 2010/30/EC (EU) 811/2013.

2.1 PRODUCT LABELS

Magis M4







3 TECHNICAL PARAMETERS

Model	MAGISM	14					
Air/water heat pump			yes	Low temperature heat pump			no
Water/water heat pump			no	WithSupplementaryheater			no
Brine/water heat pump			no	Mixed central heating device with heat pump	:		no
Declared weather condition: MEDIUM			-				
The parameters are declared for the mediu	m temperatu	reapplica	ation.				
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	P _{rated}	4,4	kW	Room central heating seasonal energy efficiency	$\boldsymbol{\eta}_s$	129,5	%
$Central heating capacity declared for a part ture of 20^\circ C and outdoor temperature T j$	tialloadatine	doortem	pera-	Central heating capacity declared for a partia ture of 20°C and outdoor temperature Tj	lloadatino	doortem	pera-
T _i =-7 °C	Pdh	3,89	kW	T _i =-7 °C	COPd	2,17	-
$T_i = +2 °C$	Pdh	2,38	kW	$T_i = +2 °C$	COPd	3,30	-
$T_i = +7 \text{ °C}$	Pdh	2,94	kW	T _i =+7 °C	COPd	4,41	-
T _i =+ 12 °C	Pdh	1,32	kW	$T_i = +12 \text{ °C}$	COPd	5,66	-
T _i =bivalent temperature	Pdh	3,89	kW	$T_i = bivalent temperature$	COPd	2,17	-
T _i = operating limit temperature	Pdh	3,42	kW	$T_i = operating limit temperature$	COPd	1,91	-
For air-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	T _{biv}	-7	°C	For air/water heat pumps: Operating limit temperature	TOL	-10	°C
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W _{tolp}	65	°C
Power consumption in modes other than a	ctive mode			Additional heater			
OFF mode	P _{OFF}	0,014	kW	Rated heat output (*)	Psup	0,98	kW
StandbyMode	P _{TO}	0,014	kW				
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical	
Crankcase heater mode electrical	Р _{ск}	0,000	kW				
Otheritems							
Capacity control	VA	ARIABLI	Ξ	For air-water heat pumps: Rated air flow rate outdoors	-	2770	m³∖h
Indoor/outdoor sound level	L _{wa}	-/55,0	dB	For water or brine-water heat pumps: Rated			21.1
Annual energy consumption	Q _{HE}	2744	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³\h
For mixed central heating appliances with	aheatpump		-				
Statedloadprofile		-		Water central heating energy efficiency	$\eta_{\rm wh}$	-	%
Daily electrical power consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact information	Immerga	sS.p.A.v	ia Cisa L	igure n.95			

(**) If C_{dh} is not determined by measuring, the default degradation coefficient is $C_{dh} = 0.9$.

Model	MAGISM	14					
Air/water heat pump			yes	Low temperature heat pump			no
Water/water heat pump			no	With Supplementary heater			no
Brine/water heat pump			no	Mixed central heating device with heat pump	:		no
Declared weather condition: COLD							
The parameters are declared for the medium	temperatu	reapplica	ation.				
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	P _{rated}	3,4	kW	Room central heating seasonal energy efficiency	$\boldsymbol{\eta}_s$	102,1	%
Central heating capacity declared for a part ture of 20°C and outdoor temperature Tj	alloadating	doortem	pera-	Central heating capacity declared for a partia ture of 20°C and outdoor temperature Tj	lloadatine	loortem	pera-
$\Gamma_{i} = -7 ^{\circ}C$	Pdh	2,13	kW	$T_i = -7 \text{ °C}$	COPd	2,32	-
$\Gamma_i = +2 ^{\circ}C$	Pdh	1,28	kW	$T_i = +2 °C$	COPd	2,99	-
$\Gamma_i = +7 ^{\circ}\text{C}$	Pdh	1,01	kW	$T_i = +7 \text{°C}$	COPd	3,86	-
$\Gamma_i = + 12 \text{ °C}$	Pdh	1,36	kW	$T_i = +12 \text{ °C}$	COPd	6,28	-
$\Gamma_i = bivalent temperature$	Pdh	2,74	kW	$T_i = bivalent temperature$	COPd	1,74	-
$\Gamma_i = operating limit temperature$	Pdh	1,64	kW	$T_i = operating limit temperature$	COPd	1,02	-
For air-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	T _{biv}	-15	°C	For air/water heat pumps: Operating limit temperature	TOL	-22	°C
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W _{tolp}	65	°C
Power consumption in modes other than ac				Additional heater			
OFF mode	P _{OFF}	0,014	kW	Rated heat output (*)	Psup	1,72	kW
Standby Mode	P _{TO}	0,014	kW				
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical	
Crankcase heater mode electrical	Р _{ск}	0,000	kW				
Otheritems							
Capacity control	VA	RIABLI	Ξ	For air-water heat pumps: Rated air flow rate outdoors	-	2770	m³∖h
ndoor/outdoor sound level	L _{WA}	-/-	dB	For water or brine-water heat pumps: Rated			311
Annual energy consumption	Q _{he}	3159	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³∖h
For mixed central heating appliances with a	heatpump						
Stated load profile		-		Water central heating energy efficiency	$\eta_{\rm wh}$	-	%
Daily electrical power consumption	Q _{elec}	-	kWh	Daily fuel consumption	$\boldsymbol{Q}_{\text{fuel}}$	-	kWł
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact information	Immerga	s S.p.A. vi	ia Cisa L	igure n.95			

	MAGISM	14					
Air/water heat pump			yes	Low temperature heat pump			no
Water/water heat pump			no	WithSupplementaryheater			no
Brine/water heat pump			no	Mixed central heating device with heat pump	:		no
Declared weather condition: WARM							
The parameters are declared for the medium	temperatu	reapplica	tion.	<u>.</u>			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	P _{rated}	5,0	kW	Room central heating seasonal energy efficiency	$\boldsymbol{\eta}_s$	162,4	%
Central heating capacity declared for a parti ture of 20°C and outdoor temperature Tj	alloadatino	doortem	pera-	Central heating capacity declared for a partia ture of 20°C and outdoor temperature Tj	lloadatin	doortem	pera-
T _i =-7 °C	Pdh	-	kW	$T_i = -7 \text{ °C}$	COPd	-	-
$T_i = +2 \text{°C}$	Pdh	4,83	kW	$T_i = +2 °C$	COPd	2,51	-
T _i =+7 °C	Pdh	3,22	kW	T _i =+7 °C	COPd	3,68	-
T _i =+ 12 °C	Pdh	1,47	kW	$T_{i} = + 12 \text{ °C}$	COPd	5,15	-
T _i =bivalent temperature	Pdh	3,22	kW	$T_i = bivalent temperature$	COPd	3,68	-
T _i =operating limit temperature	Pdh	4,83	kW	$T_i = operating limit temperature$	COPd	2,51	-
For air-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	T _{biv}	7	°C	For air/water heat pumps: Operating limit temperature	TOL	2	°C
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W_{TOLp}	65	°C
Power consumption in modes other than act	tivemode			Additionalheater			
OFF mode	P _{OFF}	0,014	kW	Rated heat output (*)	Psup	0,18	kW
StandbyMode	P _{TO}	0,014	kW				
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical	
Crankcase heater mode electrical	Р _{ск}	0,000	kW				
Other items							
Capacity control	VA	RIABLE	E	For air-water heat pumps: Rated air flow rate outdoors	-	2770	m³∖h
Indoor/outdoor sound level	L _{WA}	-/-	dB	For water or brine-water heat pumps: Rated			
Annual energy consumption	Q _{HE}	1621	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³∖h
For mixed central heating appliances with al							1
Stated load profile		-		Water central heating energy efficiency	η_{wh}	-	%
Daily electrical power consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contactinformation	Immergas	sS.p.A.vi	a Cisa L	igure n.95			

Model	MAGISM	16		· · · · · · · · · · · · · · · · · · ·			
Air/water heat pump			yes	Low temperature heat pump			no
Water/water heat pump			no	With Supplementary heater			no
Brine/water heat pump			no	Mixed central heating device with heat pump	:	-	no
Declared weather condition: MEDIUM							
The parameters are declared for the medium t	emperatur	reapplica	ation.	· · · · · · · · · · · · · · · · · · ·			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	$\mathbf{P}_{\mathrm{rated}}$	5,7	kW	Room central heating seasonal energy efficiency	η_{s}	137,9	%
Central heating capacity declared for a partial ture of 20°C and outdoor temperature Tj	lloadatinc	loor tem	pera-	Central heating capacity declared for a partia ture of 20°C and outdoor temperature Tj	lloadatin	doortem	pera-
T _i =-7 °C	Pdh	5,04	kW	$T_i = -7 \text{ °C}$	COPd	2,17	-
$T_i = +2 °C$	Pdh	3,12	kW	$T_i = +2 °C$	COPd	3,51	-
T _i =+7 °C	Pdh	2,08	kW	$T_i = +7 °C$	COPd	4,54	-
T _i =+12 °C	Pdh	1,28	kW	$T_i = +12 ^{\circ}C$	COPd	5,59	-
T _i =bivalent temperature	Pdh	5,04	kW	$T_i = bivalent temperature$	COPd	2,17	-
T _i =operatinglimit temperature	Pdh	4,52	kW	T _i = operatinglimit temperature	COPd	1,91	-
For air-water heat pumps: $Tj = -15^{\circ}C$	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	T _{biv}	-7	°C	For air/water heat pumps: Operating limit temperature	TOL	-10	°C
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W _{tolp}	65	°C
Power consumption in modes other than activ	ve mode			Additional heater			
OFF mode	$\mathbf{P}_{\mathrm{OFF}}$	0,014	kW	Rated heat output (*)	Psup	1,18	kW
Standby Mode	P _{to}	0,014	kW				
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical	
Crankcase heater mode electrical	Р _{ск}	0,000	kW				
Otheritems				1			
Capacity control	VA	RIABLI	Ξ	For air-water heat pumps: Rated air flow rate outdoors	-	2770	m³∖h
Indoor/outdoor sound level	L _{WA}	-/58,0	dB	For water or brine-water heat pumps: Rated			3\1
Annualenergyconsumption	$Q_{_{\rm HE}}$	3345	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³∖h
For mixed central heating appliances with a h	eat pump			•			
Stated load profile		-		Water central heating energy efficiency	$\eta_{\rm wh}$	-	%
Daily electrical power consumption	Q_{elec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact information	Immergas	sS.p.A.v	ia Cisa L	igure n.95			
Annual electrical power consumption Contact information (*) For heat pump appliances for space heating	AEC Immergas gand heatin fan additio	ngapplia onalheate	kWh ia Cisa L .nces mi er P _{sup} is e	Annual fuel consumption igure n.95 xed with heat pump, the rated heat output P _{rated} equal to the supplementary heating capacity su	AFC		-

Model	MAGISM	16						
Air/water heat pump			yes	Low temperature heat pump			no	
Water/water heat pump			no	WithSupplementaryheater			no	
Brine/water heat pump			no	Mixed central heating device with heat pump	:		no	
Declared weather condition: COLD								
The parameters are declared for the medium	temperatu	reapplica	ation.					
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit	
Rated heat output (*)	P _{rated}	4,3	kW	Room central heating seasonal energy efficiency	$\boldsymbol{\eta}_s$	111,1	%	
Central heating capacity declared for a parti ture of 20°C and outdoor temperature Tj	alloadatin	doortem	pera-	Central heating capacity declared for a partial load at indoor tem ture of 20°C and outdoor temperature Tj				
T _i =-7 °C	Pdh	2,70	kW	$T_i = -7 \text{ °C}$	COPd	2,46	-	
$T_i = +2 °C$	Pdh	1,60	kW	$T_i = +2 °C$	COPd	3,36	-	
$T_i = +7 °C$	Pdh	1,02	kW	$T_i = +7 \text{ °C}$	COPd	3,94	-	
T _i =+ 12 °C	Pdh	1,37	kW	$T_i = +12 ^{\circ}C$	COPd	6,35	-	
T _i =bivalent temperature	Pdh	3,47	kW	$T_i = bivalent temperature$	COPd	1,86	-	
T _i =operatinglimit temperature	Pdh	2,09	kW	$T_i = operating limit temperature$	COPd	1,13	-	
For air-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-	
Bivalent temperature	T _{biv}	-15	°C	For air/water heat pumps: Operating limit temperature	TOL	-22	°C	
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-	
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W_{tolp}	65	°C	
Power consumption in modes other than act	tive mode			Additionalheater				
OFF mode	P _{OFF}	0,014	kW	Rated heat output (*)	Psup	2,17	kW	
StandbyMode	P _{TO}	0,014	kW					
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical		
Crankcase heater mode electrical	P _{CK}	0,000	kW					
Otheritems	1					<u>,</u>		
Capacity control	VA	RIABL	E	For air-water heat pumps: Rated air flow rate outdoors	-	2770	m³\h	
Indoor/outdoor sound level	L _{WA}	-/-	dB	For water or brine-water heat pumps: Rated				
Annual energy consumption	Q _{HE}	3681	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³∖h	
For mixed central heating appliances with al	heatpump	1				<u> </u>	1	
Statedloadprofile		-		Water central heating energy efficiency	$\eta_{\rm wh}$	-	%	
Daily electrical power consumption	Q _{elec}	-	kWh	Dailyfuelconsumption	Q _{fuel}	-	kWh	
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ	
Contact information	Immerga	sS.p.A.vi	ia Cisa L	igure n.95				

Model	MAGISM	16						
Air/water heat pump			yes	Low temperature heat pump			no	
Water/water heat pump			no	With Supplementary heater			no	
Brine/water heat pump			no	Mixed central heating device with heat pump	:		no	
Declared weather condition: WARM								
The parameters are declared for the medium	temperatu	reapplica	ation.	· · · · · · · · · · · · · · · · · · ·				
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit	
Rated heat output (*)	P _{rated}	5,1	kW	Room central heating seasonal energy efficiency	$\boldsymbol{\eta}_s$	164,7	%	
Central heating capacity declared for a partiture of 20°C and outdoor temperature Tj	alloadatine	doortem	pera-	Central heating capacity declared for a partia ture of 20°C and outdoor temperature Tj	lloadatine	doortem	pera-	
$T_i = -7 \text{ °C}$	Pdh	-	kW	$T_i = -7 \text{ °C}$	COPd	-	-	
$T_i = +2 °C$	Pdh	5,02	kW	$T_i = +2 °C$	COPd	2,48	-	
T _i =+7 °C	Pdh	3,31	kW	$T_i = +7 \text{ °C}$	COPd	3,67	-	
T _i =+ 12 °C	Pdh	1,60	kW	$T_{i} = + 12 \text{ °C}$	COPd	5,29	-	
$T_i = bivalent temperature$	Pdh	3,31	kW	$T_i = bivalent temperature$	COPd	3,67	-	
T _i = operating limit temperature	Pdh	5,02	kW	$T_i = operating limit temperature$	COPd	2,48	-	
For air-water heat pumps: $Tj = -15^{\circ}C$	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-	
Bivalent temperature	T _{biv}	7	°C	For air/water heat pumps: Operating limit temperature	TOL	2	°C	
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-	
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W _{tolp}	65	°C	
Power consumption in modes other than ac				Additional heater				
OFF mode	P _{OFF}	0,014	kW	Rated heat output (*)	Psup	0,12	kW	
Standby Mode	P _{TO}	0,014	kW					
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical		
Crankcase heater mode electrical	P _{CK}	0,000	kW					
Otheritems	- <u>r</u>							
Capacity control	VA	RIABLI	Ξ	For air-water heat pumps: Rated air flow rate outdoors	-	2770	m³∖h	
Indoor/outdoor sound level	L _{WA}	-/-	dB	For water or brine-water heat pumps: Rated			3) 1-	
Annual energy consumption	Q _{HE}	1640	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³∖h	
For mixed central heating appliances with a	heatpump							
Stated load profile		-	•	Water central heating energy efficiency	$\eta_{\rm wh}$	-	%	
Daily electrical power consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh	
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ	
Contact information	Immerga	sS.p.A.v	ia Cisa L	igure n.95			0	

Model	MAGISM	18					
Air/water heat pump			yes	Low temperature heat pump			no
Water/water heat pump			no	WithSupplementaryheater			no
Brine/water heat pump			no	Mixed central heating device with heat pump	:		no
Declared weather condition: MEDIUM							
The parameters are declared for the medium	ntemperatu	reapplica	ation.	<u>.</u>			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	P _{rated}	6,6	kW	Room central heating seasonal energy efficiency	$\boldsymbol{\eta}_s$	131,5	%
$Central heating capacity declared for a part ture of 20^\circ C and outdoor temperature T j$	ialload at in	doortem	pera-	Central heating capacity declared for a partia ture of 20°C and outdoor temperature Tj	lloadatin	doortem	pera-
$T_j = -7 °C$	Pdh	5,84	kW	$T_i = -7 \text{ °C}$	COPd	2,16	-
$T_i = +2 °C$	Pdh	3,75	kW	$T_i = +2 °C$	COPd	3,30	-
$T_i = +7 °C$	Pdh	2,42	kW	$T_i = +7 \text{ °C}$	COPd	4,34	-
T _i =+ 12 °C	Pdh	1,39	kW	$T_i = +12 ^{\circ}C$	COPd	5,33	-
T _i =bivalent temperature	Pdh	5,84	kW	$T_i = bivalent temperature$	COPd	2,16	-
T _i =operatinglimit temperature	Pdh	4,9	kW	$T_i = operating limit temperature$	COPd	1,84	-
For air-water heat pumps: $Tj = -15^{\circ}C$	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	T _{biv}	-7	°C	For air/water heat pumps: Operating limit temperature	TOL	-10	°C
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W_{tolp}	65	°C
Power consumption in modes other than ac	tive mode			Additionalheater			
OFF mode	P _{OFF}	0,014	kW	Rated heat output (*)	Psup	1,69	kW
StandbyMode	P _{TO}	0,014	kW				
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical	
Crankcase heater mode electrical	Р _{ск}	0,000	kW				
Otheritems						1	
Capacity control	VA	RIABLI	E	For air-water heat pumps: Rated air flow rate outdoors	-	4030	m³∖h
Indoor/outdoor sound level	L _{WA}	-/59,0	dB	For water or brine-water heat pumps: Rated			
Annual energy consumption	Q _{HE}	4056	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³∖h
For mixed central heating appliances with a	heatpump	1					1
Stated load profile		-		Water central heating energy efficiency	$\eta_{\rm wh}$	-	%
Daily electrical power consumption	Q _{elec}	-	kWh	Dailyfuelconsumption	Q _{fuel}	-	kWh
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact information	Immerga	sS.p.A.v	ia Cisa L	igure n.95			

Model	MAGISM	18					
Air/water heat pump			yes	Low temperature heat pump			no
Water/water heat pump			no	With Supplementary heater			no
Brine/water heat pump			no	Mixed central heating device with heat pump	:		no
Declared weather condition: COLD							
The parameters are declared for the medium	temperatu	reapplica	ation.				
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	P _{rated}	5,8	kW	Room central heating seasonal energy efficiency	$\boldsymbol{\eta}_s$	112,0	%
Central heating capacity declared for a part: ture of 20°C and outdoor temperature Tj	alload at inc	doortem	pera-	Central heating capacity declared for a partia ture of 20°C and outdoor temperature Tj	lloadatine	doortem	pera-
$T_i = -7 °C$	Pdh	3,86	kW	$T_i = -7 \text{ °C}$	COPd	2,48	-
$T_j = +2 °C$	Pdh	2,21	kW	$T_j = +2 °C$	COPd	3,35	-
$T_i = +7 °C$	Pdh	1,44	kW	$T_i = +7 \text{ °C}$	COPd	4,11	-
$T_i = + 12 \text{ °C}$	Pdh	1,46	kW	$T_i = +12 \text{ °C}$	COPd	5,92	-
T _i =bivalent temperature	Pdh	4,71	kW	$T_i = bivalent temperature$	COPd	1,9	-
T _i =operatinglimit temperature	Pdh	2,8	kW	T _i =operatinglimit temperature	COPd	1,22	-
For air-water heat pumps: $Tj = -15^{\circ}C$	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	T _{biv}	-15	°C	For air/water heat pumps: Operating limit temperature	TOL	-22	°C
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W _{tolp}	65	°C
Power consumption in modes other than ac				Additional heater			
OFF mode	P _{OFF}	0,014	kW	Rated heat output (*)	Psup	2,97	kW
StandbyMode	P _{TO}	0,014	kW				
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical	
Crankcase heater mode electrical	Р _{ск}	0,000	kW				
Otheritems						1	
Capacity control	VA	RIABLI	3	For air-water heat pumps: Rated air flow rate outdoors	-	4030	m³\h
Indoor/outdoor sound level	L _{WA}	-/-	dB	For water or brine-water heat pumps: Rated			2) 1
Annual energy consumption	Q _{he}	4950	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³\h
For mixed central heating appliances with a	heatpump						
Stated load profile		-		Water central heating energy efficiency	$\eta_{\rm wh}$	-	%
Daily electrical power consumption	Q _{elec}	-	kWh	Daily fuel consumption	$\boldsymbol{Q}_{\text{fuel}}$	-	kWh
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact information	Immerga	sS.p.A.v	ia Cisa L	igure n.95			

Model	MAGISM	18					
Air/water heat pump			yes	Low temperature heat pump			no
Water/water heat pump			no	With Supplementary heater			no
Brine/water heat pump			no	Mixed central heating device with heat pump	:		no
Declared weather condition: WARM							
The parameters are declared for the medium	n temperatu	reapplica	ation.				
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	P _{rated}	8,37	kW	Room central heating seasonal energy efficiency	$\boldsymbol{\eta}_s$	176,9	%
$Central heating capacity declared for a part ture of 20^\circ C and outdoor temperature T j$	ialload at in	doortem	pera-	Central heating capacity declared for a partia ture of 20°C and outdoor temperature Tj	lloadatin	doortem	pera-
$T_j = -7 °C$	Pdh	-	kW	$T_j = -7 \ ^{\circ}C$	COPd	-	-
$T_i = +2 °C$	Pdh	7,55	kW	$T_i = +2 °C$	COPd	2,59	-
$T_i = +7 \text{ °C}$	Pdh	5,38	kW	$T_i = +7 \text{ °C}$	COPd	4,01	-
T _i =+ 12 °C	Pdh	2,31	kW	$T_i = +12 \text{ °C}$	COPd	5,55	-
T _i =bivalent temperature	Pdh	5,38	kW	$T_i = bivalent temperature$	COPd	4,01	-
T _i =operating limit temperature	Pdh	7,55	kW	$T_i = operating limit temperature$	COPd	2,59	-
For air-water heat pumps: $Tj = -15^{\circ}C$	Pdh	-	kW	For air-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	T _{biv}	7	°C	For air/water heat pumps: Operating limit temperature	TOL	2	°C
Capacity of the cycle range for central heating	P _{cych}	-	kW	Efficiency of cycle range	COP _{cyc}	-	-
Degradation coefficient (**)	C _{dh}	0,9	-	Heating water operation limit temperature	W_{tolp}	65	°C
Power consumption in modes other than a	ctive mode			Additionalheater			
OFF mode	P _{OFF}	0,014	kW	Rated heat output (*)	Psup	0,82	kW
StandbyMode	P _{TO}	0,014	kW				1
Thermostat OFF mode	P _{SB}	0,024	kW	Type of energy supplied	e	lectrical	
Crankcase heater mode electrical	P _{CK}	0,000	kW				
Otheritems							
Capacity control	VA	ARIABLI	3	For air-water heat pumps: Rated air flow rate outdoors	-	4030	m³\h
Indoor/outdoor sound level	L _{WA}	-/-	dB	For water or brine-water heat pumps: Rated			3\1
Annual energy consumption	Q _{HE}	2485	kWh	water or brine flow rate, heat exchanger outdoors	-	-	m³∖h
For mixed central heating appliances with a	heatpump						
Stated load profile		-		Water central heating energy efficiency	$\eta_{\rm wh}$	-	%
Daily electrical power consumption	Q _{elec}	-	kWh	Dailyfuelconsumption	Q _{fuel}	-	kWh
Annual electrical power consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact information	Immerga	s S.p.A. vi	ia Cisa L	igure n.95			



INFORMATION REQUIREMENTS FOR SPACE CHILLERS

Information requirements for space chillers												
Model				MAGIS M4								
Heat exchanger:				Air-Water								
Туре:		•		Steam compression cycle								
Compressor start-up:				Electric motor								
	<u>,</u>			1	,							
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit					
Rated cooling capacity	P _{rated,c}	4,7	kW	Space heating seasonal energy efficiency	$\eta_{s,c}$	196,2	%					
Cooling capacity declared for partial load at ture Tj	a given outc	loor temj	pera-	Cooling capacity declared for partial load at a ture Tj	ı given outd	loortemp	oera-					
Tj=+35°C	P _{dc}	4,70	kW	Tj=+35°C	EER _d	3,45	-					
Tj=+30°C	P _{dc}	3,66	kW	Tj=+30°C	EER _d	4,76	-					
$Tj = +25^{\circ}C$	P _{dc}	2,21	kW	$Tj = +25^{\circ}C$	EER _d	5,72	-					
$Tj = +20^{\circ}C$	P _{dc}	0,94	kW	$Tj = +20^{\circ}C$	EER _d	5,72	-					
						l						
Degradation coefficient for chillers (*)	C _{dc}	0,9	-									
Power consumption in modes other than "a	ctive mode			^ 								
OFF mode	P _{OFF}	0,014	kW	Crankcase heater mode electrical	Р _{ск}	0,000	kW					
Thermostat OFF mode	P _{to}	0,010	kW	StandbyMode	P _{SB}	0,014	kW					
Otheritems												
Capacity control	VA	RIABLI	E	For air-water emergency chillers: air flow		2770	m³∖h					
Sound power level, indoors/outdoors	L _{WA}	-\56	dB	rate, measured outdoors	-	2770						
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg\ kWh input GCV	For water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger	_	-	m³∖h					
GWP of refrigerant	-	675	kg CO _{2eq}									
Standard rating conditions used	Lowtemp	eraturea	pplicatio	on								
Contact information	Immergas	<u> </u>										
(*) If C _{dc} is not determined by measuring, the (**) Since September 26, 2018	standard de	egradatio	on coeffic	cient of chillers must be 0.9.								

			MAGIS M4							
		Air-Water								
			Steam compression cycle							
			Electric motor							
Symbol	Value	Unit	Element	Symbol	Value	Unit				
P _{rated,c}	4,5	kW	Spaceheatingseasonalenergyefficiency	$\eta_{s,c}$	307,4	%				
given outd	oor temp	pera-	Cooling capacity declared for partial load at ture Tj	a given outc	loor temp	era-				
P _{dc}	4,50	kW	Tj = +35°C	EER _d	5,50	-				
P _{dc}	3,44	kW	Tj = +30°C	EER	7,23	-				
	2,19	kW	Tj = +25°C	EER _d	8,94					
	1,13	kW	$Tj = +20^{\circ}C$	EER	10,48	-				
		l	•							
C _{dc}	0,9	-								
tive mode	"									
P _{OFF}	0,014	kW	Crankcase heater mode electrical	Р _{ск}	0,000	kW				
P _{to}	0,010	kW	Standby Mode	P _{SB}	0,014	kW				
VA	RIABLE	3	For air-water emergency chillers: air flow		2770	m³\h				
L _{WA}	-\56	dB	rate, measured outdoors	-	2770	111 \11				
NO _x (**)	-	mg∖ kWh input GCV	For water / brine-water chillers: brine or rated brine water flow rate, outdoors side	-	-	m³∖h				
-	675	kg CO _{2eq}								
Mediumte	emperat	ureappli	cation							
Immergas	S.p.A.vi	ia Cisa Li	gure n.95							
	$\frac{P_{rated,c}}{P_{rated,c}}$ given outd $\frac{P_{dc}}{P_{dc}}$	$P_{rated,c}$ 4,5 given outdoor temp P_{dc} 4,50 P_{dc} 3,44 P_{dc} 2,19 P_{dc} 1,13 C_{dc} 0,9 tive mode" 0,014 P_{TO} 0,010 VARIABLI L_{WA} -\56 NO_x (**) - - 675 Medium temperat Immergas S.p.A. vi	$P_{rated,c}$ 4,5kWgiven outdoor tempera- P_{dc} 4,50kW P_{dc} 3,44kW P_{dc} 2,19kW P_{dc} 1,13kW C_{dc} 0,9-tive mode" P_{OFF} 0,014kW P_{TO} 0,010kWVARIABLE L_{WA} -\56dB NO_x (**)-mg\ kWh input GCV-675kg CO 2eqMedium temperature appliImmergas S.p.A. via Cisa Li	Air-WaterSteam compression cycleElectric motorSymbolValueUnitElectric motorSymbolValueUnitElectric motorSymbolValueUnitElectric motorSymbolValueCooling capacity declared for partial load at ture TjP _{dc} 4,50KWTj = +35°CP _{dc} 3,44KWTj = +35°CP _{dc} 2,19KWTj = +25°CP _{dc} 1,13KWTj = +25°CP _{dc} 0,014KWTj = +20°CCCC _{dc} 0,014KWCrankcase heater mode electricalP _{oFF} 0,014kWCrankcase heater mode electricalP _{oFF} 0,014kWFor air-water emergency chillers: air flowTo air-water emergency chillers: air flowTo air-water indecord colspan="2">Te for air-water chillers: brine orrated brine water flow rate, outdoors sideheat exchanger	Air-WaterSteam compression cycleElectric motorSymbolValueUnitElementSymbol $P_{rated.c}$ 4,5kWSpace heating seasonal energy efficiency $\eta_{s.c}$ given outdor tempera-Cooling capacity declared for partial load at a given outdor ture Tj $P_{d.c}$ 4,50kWTj = +35°CEER_d $P_{d.c}$ 3,44kWTj = +35°CEER_dEER_d $P_{d.c}$ 3,44kWTj = +25°CEER_d $P_{d.c}$ 1,13kWTj = +20°CEER_d $P_{d.c}$ 0,9- $-$ EER_d $P_{d.c}$ 0,14kWCrankcase heater mode electrical P_{CK} P_{OFF} 0,014kWStandby Mode P_{sB} VARIABLEFor air-water emergency chillers: air flow rate, measured outdoors I_{WA} $-\sqrt{56}$ dBFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger- $NO_x(**)$ $ \frac{mgV}{kWh}$ input GCV For water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger- $Medium temperature applicationImmergas S.p.A. via Cisa Ligure n.95-$	Air-WaterSteam compression cycleSteam compression cycleElectric motorSymbolValue $P_{rated.}$ 4,5kWSpace heating seasonal energy efficiency $\eta_{x.c}$ 307,4given outdoor tempera- ture TjCooling capacity declared for partial load at a given outdoor temp ture TjEER _d 5,50 P_{dc} 4,50kWTj = +35°CEER _d 5,50 P_{dc} 3,44kWTj = +25°CEER _d 8,94 P_{dc} 1,13kWTj = +20°CEER _d 10,48C C_{dc} 0,014kWCrankcase heater mode electrical P_{CK} 0,000 P_{ro} 0,014kWCrankcase heater mode electrical P_{CK} 0,000 P_{ro} 0,014kWFor air-water emergency chillers: air flow rate, measured outdoors-2770Mox (**)-mgl kWh input GCVFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchangerMedium temperature applicationFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchangerMedium temperature applicationImmergas S.p.A. via Cisa Ligure n.95KillerStart of the start of the				

Information requirements for space chillers				MACIENC	û.						
Model				MAGISM6							
Heat exchanger:				Air-Water							
Туре:				Steam compression cycle							
Compressor start-up:				Electric motor							
	0.1.1	** 1		1		** 1					
Element	Symbol	Value	Unit kW	Element	Symbol	Value	Unit %				
Rated cooling capacity	P _{rated,c}	7,0		Space heating seasonal energy efficiency	$\eta_{s,c}$	209,5					
Cooling capacity declared for partial load at a ture Tj	a given outd	loortemj	pera-	Cooling capacity declared for partial load at ture Tj	a given outc	loortemp	pera-				
Tj=+35°C	P _{dc}	7,00	kW	Tj=+35°C	EER _d	3,00	-				
Tj=+30°C	P _{dc}	5,13	kW	Tj=+30°C	EER _d	4,00	-				
Tj=+25°C	P _{dc}	3,48	kW	$Tj = +25^{\circ}C$	EER _d	6,45	-				
Tj=+20°C	P _{dc}	1,53	kW	Tj=+20°C	EER	7,73	-				
	ue		1	1	u						
Degradation coefficient for chillers (*)	C _{dc}	0,9	-								
Power consumption in modes other than "a	ctive mode	»		-							
OFF mode	P _{OFF}	0,014	kW	Crankcase heater mode electrical	P _{CK}	0,000	kW				
Thermostat OFF mode	P _{to}	0,010	kW	Standby Mode	P _{SB}	0,014	kW				
Otheritems											
Capacity control	VA	RIABLI	E	For air-water emergency chillers: air flow		2770	21				
Sound power level, indoors/outdoors	L _{wA}	-\60	dB	rate, measured outdoors	-	2770	m³∖h				
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg∖ kWh input GCV	For water / brine-water chillers: brine or rated brine water flow rate, outdoors side	-	-	m³∖h				
GWP of refrigerant	-	675	kg CO _{2eq}	heat exchanger							
Standard rating conditions used	Lowtemp	eraturea	pplicatio	on							
Contact information	Immergas	S.p.A.v	ia Cisa Li	igure n.95							

ool Val			MAGIS M6 Air-Water Steam compression cycle Electric motor	2							
			Steam compression cycle	2							
				2							
			Electric motor								
	ie U		Electricinotor	Electric motor							
	ie U										
6		Jnit	Element	Symbol	Value	Unit					
{l,c} 6,	5 k	кW	Space heating seasonal energy efficiency	$\eta{s,c}$	325,9	%					
outdoort	empera	a-	Cooling capacity declared for partial load at ture Tj	a given outc	loor temp	era-					
6,5	0 k	κW	Tj = +35°C	EER _d	4,80	-					
	8 k	kW	Tj=+30°C	EER _d	7,16	-					
	6 k	кW	Tj=+25°C	EER _d	9,64	-					
	1 k	κW	Tj=+20°C	EER	11,48	-					
				u							
0,)	-									
ode"											
_F 0,0	4 k	кW	Crankcase heater mode electrical	Р _{ск}	0,000	kW					
	0 k	kW	Standby Mode	P _{SB}	0,014	kW					
VARIA	BLE		For air-water emergency chillers: air flow		2770	m³∖h					
-\{	8 d	dB	rate, measured outdoors	-	2770	m²\n					
**) -	k\ in	Wh	For water / brine-water chillers: brine or rated brine water flow rate, outdoors side	-	-	m³∖h					
67		- 1	neatexchanger								
ım temp	raturea	appli	cation								
rgas S.p.	A. via Ci	Cisa Li	gure n.95								
	$ \begin{array}{c} c & 6,5 \\ $	$ \begin{array}{c c} c & 6,50 & 1 \\ c & 4,48 & 1 \\ c & 3,26 & 1 \\ c & 1,41 & 1 \\ c & 0,9 & 1 \\ c & 0,9 & 1 \\ c & 0,9 & 1 \\ c & 0,014 & 1 \\ c & 0,010 & 1 \\ \hline VARIABLE & 1 \\ \hline VARIABLE & 1 \\ \hline (**) & - & 1 \\ (**) & - & 1 \\ (**) & - & 1 \\ \hline (**) & - & 1 \\ \hline $	c. 6,50 kW c. 4,48 kW c. 3,26 kW c. 1,41 kW c. 0,9 - node" - - mode" - - vARIABLE - - A -\58 dB (**) - - 675 kg CO _{2eq} - um temperature appli crgas S.p.A. via Cisa Li	ture Tjc6,50kWTj = +35°Cc4,48kWTj = +30°Cc3,26kWTj = +25°Cc1,41kWTj = +20°Cc0,9-node"VariableFor air-water emergency chillers: air flow rate, measured outdoorsVARIABLE AVARIABLE AFor air-water emergency chillers: air flow rate, measured outdoors(**)-mg\ kWh input GCV675kgFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger	ture Tj $ture Tj$ c $6,50$ kW $Tj = +35^{\circ}C$ EER_d c $4,48$ kW $Tj = +30^{\circ}C$ EER_d c $3,26$ kW $Tj = +25^{\circ}C$ EER_d c $1,41$ kW $Tj = +20^{\circ}C$ EER_d c $0,9$ $ c$ c <td>ture Tja6,50kWTj = +35°CEER4,80a4,48kWTj = +30°CEER7,16a3,26kWTj = +25°CEER9,64a1,41kWTj = +20°CEER11,48c0,9node"VARIABLEA-\58dBA-\58dBFor air-water emergency chillers: air flow rate, measured outdoors-(**)-mg\ kWh input GCVFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger-emperature applicationergas S.p.A. via Cisa Ligure n.95-</td>	ture Tja6,50kWTj = +35°CEER4,80a4,48kWTj = +30°CEER7,16a3,26kWTj = +25°CEER9,64a1,41kWTj = +20°CEER11,48c0,9node"VARIABLEA-\58dBA-\58dBFor air-water emergency chillers: air flow rate, measured outdoors-(**)-mg\ kWh input GCVFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger-emperature applicationergas S.p.A. via Cisa Ligure n.95-					

(**) Since September 26, 2018

Ie Uni 5 kW cmpera- 5 5 kW 2 kW 2 kW 4 kW 0 -	 Space heating seasonal energy efficiency Cooling capacity declared for partial load at ture Tj Tj = +35°C Tj = +30°C Tj = +25°C 	Symbol η _{s,c}	Value 229,9 door temp 3,35 4,71 6,65 8,55	Unit % Dera- - - - - -
5 kW empera- 5 kW 2 kW 2 kW 4 kW	Steam compression cycle Electric motor t Element T Space heating seasonal energy efficiency Cooling capacity declared for partial load at ture Tj Tj = +35°C T Tj = +30°C T Tj = +25°C	Symbol η _{s,c} a given outco EER _d EER _d EER _d	229,9 loor temp 3,35 4,71 6,65	% pera-
5 kW empera- 5 kW 2 kW 2 kW 4 kW	Electric motor t Element Space heating seasonal energy efficiency Cooling capacity declared for partialload at ture Tj T Tj = +35°C T Tj = +30°C T Tj = +25°C	Symbol η _{s,c} a given outco EER _d EER _d EER _d	229,9 loor temp 3,35 4,71 6,65	% pera-
5 kW empera- 5 kW 2 kW 2 kW 4 kW	tElement7Space heating seasonal energy efficiencyCooling capacity declared for partialload at ture Tj7 $Tj = +35^{\circ}C$ 7 $Tj = +30^{\circ}C$ 7 $Tj = +25^{\circ}C$	η _{s,c} a given outo EER _d EER _d EER _d	229,9 loor temp 3,35 4,71 6,65	% pera-
5 kW empera- 5 kW 2 kW 2 kW 4 kW	 Space heating seasonal energy efficiency Cooling capacity declared for partial load at ture Tj Tj = +35°C Tj = +30°C Tj = +25°C 	η _{s,c} a given outo EER _d EER _d EER _d	229,9 loor temp 3,35 4,71 6,65	% pera-
5 kW empera- 5 kW 2 kW 2 kW 4 kW	 Space heating seasonal energy efficiency Cooling capacity declared for partial load at ture Tj Tj = +35°C Tj = +30°C Tj = +25°C 	η _{s,c} a given outo EER _d EER _d EER _d	229,9 loor temp 3,35 4,71 6,65	% pera-
empera- 5 kW 2 kW 2 kW 4 kW	Cooling capacity declared for partial load at ture Tj T j=+35°C T j=+30°C T j=+25°C	EER _d EER _d EER _d	3,35 4,71 6,65	pera-
5 kW 2 kW 2 kW 4 kW	ture Tj $Tj = +35^{\circ}C$ $Tj = +30^{\circ}C$ $Tj = +25^{\circ}C$	EER _d EER _d EER _d	3,35 4,71 6,65	-
2 kW 2 kW 4 kW	$T_{j} = +30^{\circ}C$ $T_{j} = +25^{\circ}C$	EER _d EER _d	4,71 6,65	-
2 kW 4 kW	$T_j = +25^{\circ}C$	EER _d	6,65	-
4 kW	,	u		-
	T Tj=+20°C	EER _d	8,55	-
_				. <u> </u>
) _				
4 kW	Crankcase heater mode electrical	Р _{ск}	0,000	kW
.0 kW	Standby Mode	P _{SB}	0,014	kW
		·		
BLE	For air-water emergency chillers: air flow			2) 1
0 dB	rate, measured outdoors	-	4030	m³∖h
kW inpu	h For water / brine-water chillers: brine or rated brine water flow rate, outdoors side	-	-	m³∖h
reapplica	tion			
. via Cisa	Ligure n.95			
5 75	60 dB mg kW inpu GC 75 kg CO ₂ 11re applica	60 dB rate, measured outdoors 60 mg\ kWh kWh input GCV kg heat exchanger	60dBrate, measured outdoors 60 dBrate, measured outdoors 60 mg\ kWh input GCVFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger 75 kg CO 2eqheat exchanger 75 kg cO 2eqIrre applicationA. via Cisa Ligure n.95	60 dB 10 an water emergency emiters an now $ 4030$ 60 dB rate, measured outdoors $ 4030$ $mg \setminus$ kWh input GCVFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger $ 75$ kg CO _{2eq} heat exchanger $ 1re application$ $ -$

			MAGIS M8							
		Air-Water								
			Steam compression cycle							
			Electric motor							
Symbol	Value	Unit	Element	Symbol	Value	Unit				
P _{rated,c}	8,3	kW	Spaceheatingseasonalenergyefficiency	$\eta_{s,c}$	354,7	%				
given outd	oortem	pera-	Cooling capacity declared for partial load at ture Tj	a given outc	loor temp	oera-				
P _{dc}	8,30	kW	Tj=+35°C	EER _d	5,05	-				
P _{dc}	6,47	kW	Tj = +30°C	EER _d	7,02	-				
P _{dc}	4,31	kW	Tj = +25°C	EER _d	10,67	-				
P _{dc}	1,80	kW	Tj = +20°C	EER _d	13,61	-				
C _{dc}	0,9	-								
ctive mode	"									
P _{OFF}	0,014	kW	Crankcase heater mode electrical	P _{CK}	0,000	kW				
P _{to}	0,010	kW	Standby Mode	P _{SB}	0,014	kW				
VA	RIABLE	3	For air-water emergency chillers: air flow		4020	m³∖h				
L _{WA}	-\60	dB	rate, measured outdoors	-	4030	111 \11				
NO _x (**)	-	mg∖ kWh input GCV	For water / brine-water chillers: brine or rated brine water flow rate, outdoors side	-	-	m³∖h				
-	675	kg CO _{2eq}	ווכמו באכוומווצרו							
Mediumt	emperat	ureappli	cation							
Immergas	S.p.A.vi	ia Cisa Li	gure n.95							
	$\frac{P_{rated,c}}{given outd}$ $\frac{P_{dc}}{P_{dc}}$ $\frac{P_{dc}}{P_{dc}}$ $\frac{P_{dc}}{P_{dc}}$ $\frac{P_{dc}}{C_{dc}}$ $\frac{C_{dc}}{C_{dc}}$ $\frac{C_{dc}}{C_{dc$	$P_{rated,c}$ 8,3 given outdoor temp P_{dc} 8,30 P_{dc} 6,47 P_{dc} 4,31 P_{dc} 1,80 C _{dc} Q_{dc} 0,9 Ctive mode" P_{OFF} 0,014 P_{TO} 0,010 VARIABLI L_{WA} -\60 NO_x (**) - - 675 Medium temperat Immergas S.p.A. vi	$P_{rated,c}$ 8,3 kW given outdoor tempera- P_{dc} 8,30 kW P_{dc} 6,47 kW P_{dc} 6,47 kW P_{dc} 4,31 kW P_{dc} 1,80 kW P_{dc} 0,9 - C_{dc} 0,9 - Clive mode" P_{OFF} 0,014 kW P_{TO} 0,010 kW VARIABLE L_{WA} -\60 dB NO_x (**) - mg\ kWh input GCV - 675 kg CO _{2eq} Medium temperature appli Immergas S.p.A. via Cisa Li	Air-WaterSteam compression cycleSteam compression cycleElectric motorSymbolValueUnitElement $P_{rated,c}$ 8,3kWSpace heating seasonal energy efficiencygiven outdoor tempera-Cooling capacity declared for partial load at ture Tj P_{dc} 8,30kWTj = +35°C P_{dc} 6,47kWTj = +20°C P_{dc} 1,80kWTj = +20°C P_{dc} 0,014kWCrankcase heater mode electrical P_{OFF} 0,014kWStandby ModeVARIABLE $VARIABLE$ For air-water emergency chillers: air flow rate, measured outdoorsNO _x (**)- $NO_x^{(**)}$ -mg/ kWh input GCVFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchanger	Air-WaterSteam compression cycleSteam compression cycleElectric motorSymbolValueUnitSymbolP ac8,3kWSpace heating seasonal energy efficiency η_{sc} given outremportCooling capacity declared for partial load at a given out of ture TjEERdP dc8,30kWTj = +35°CEERdP dc6,47kWTj = +20°CEERdP dc1,80kWTj = +20°CEERdP dc0,99C 	Air-WaterSteam compression cycleSteam compression cycleElectric motorBad out the symbol valueP_{rated.c}8,3kWSpace heating seasonal energy efficiency $\eta_{s.c}$ 354,7given out/out rempCooling capacity declared for partial load at a given out/out rempP_{d.c}8,30kWTj = +35°CEER_d5,05P_{d.c}6,47kWTj = +30°CEER_d1,067P_{d.c}4,31kWTj = +25°CEER_d1,067P_{d.c}1,80kWTj = +20°CEER_d1,067P_{d.c}0,014kWTj = +20°CEER_d1,067P_{d.c}0,014kWCrankcase heater mode electricalP_{C.K}0,000P_{TO}0,010kWStandby ModeP_{sB}0,014MWCrankcase heater mode electricalP_{C.K}0,000P_{TO}0,010kWStandby ModeP_{sB}0,014MWFor air-water emergency chillers: air flow rate, measured outdoors-4030ImageMo_{s(**)}-Mg/ RWFor water / brine-water chillers: brine or rated brine water flow rate, outdoors side heat exchangerMedium temperature applicationImmergas S.p.A.via Cisa Ligure n.95				



TECHNICAL DATA TABLE ON ENVIRONMENTAL CONDITIONS

Conditions (°C)		MAGISM4	MAGIS M6	MAGIS M8
Room Temperature: 35/24 Water Temperature: 12/7	Capacity (kW)	4,7	7,0	7,45
	Absorbed power (kW)	1,36	2,33	2,22
	EER/COP(/)	3,45	3,0	3,35
Room Temperature: 35/24 Water Temperature: 23/18	Capacity(kW)	4,5	6,5	8,3
	Absorbed power (kW)	0,82	1,35	1,64
	EER/COP(/)	5,5	4,8	5,05
Room Temperature: 7/6 Water Temperature: 30/35	Capacity(kW)	4,2	6,35	8,4
	Absorbed power (kW)	0,82	1,28	1,63
	EER/COP(/)	5,1	4,95	5,15
Room Temperature: 2/1 Water Temperature: 30/35	Capacity(kW)	4,40	5,50	7,1
	Absorbed power (kW)	1,10	1,41	1,73
	EER/COP(/)	4,00	3,9	4,10
Room Temperature: -7/-8 Water Temperature: 30/35	Capacity(kW)	4,70	6,00	7,00
	Absorbed power (kW)	1,52	2,00	2,19
	EER/COP(/)	3,10	3,00	3,20
Room Temperature: 7/6 Water Temperature: 40/45	Capacity(kW)	4,3	6,3	8,1
	Absorbed power (kW)	1,13	1,7	2,1
	EER/COP(/)	3,8	3,7	3,85
Room Temperature: 2/1 Water Temperature: 40/45	Capacity (kW)	5,10	5,80	7,40
	Absorbed power (kW)	1,70	1,93	2,28
	EER/COP(/)	3,00	3,00	3,25
Room Temperature: -7/-8 Water Temperature: 40/45	Capacity (kW)	4,30	5,40	6,60
	Absorbed power (kW)	1,83	2,25	2,59
	EER/COP(/)	2,35	2,40	2,55
Room Temperature: 7/6 Water Temperature: 47/55	Capacity (kW)	4,4	6,0	7,5
	Absorbed power (kW)	1,49	2,03	2,36
	EER/COP(/)	2,95	2,95	3,18
Room Temperature: 2/1 Water Temperature: 47/55	Capacity (kW)	5,10	5,65	7,10
	Absorbed power (kW)	2,08	2,31	2,73
	EER/COP(/)	2,45	2,45	2,60
Room Temperature: -7/-8 Water Temperature: 47/55	Capacity (kW)	4,00	5,15	6,15
	Absorbed power (kW)	2,05	2,58	3,00
	EER/COP(/)	1,95	2,00	2,05



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