

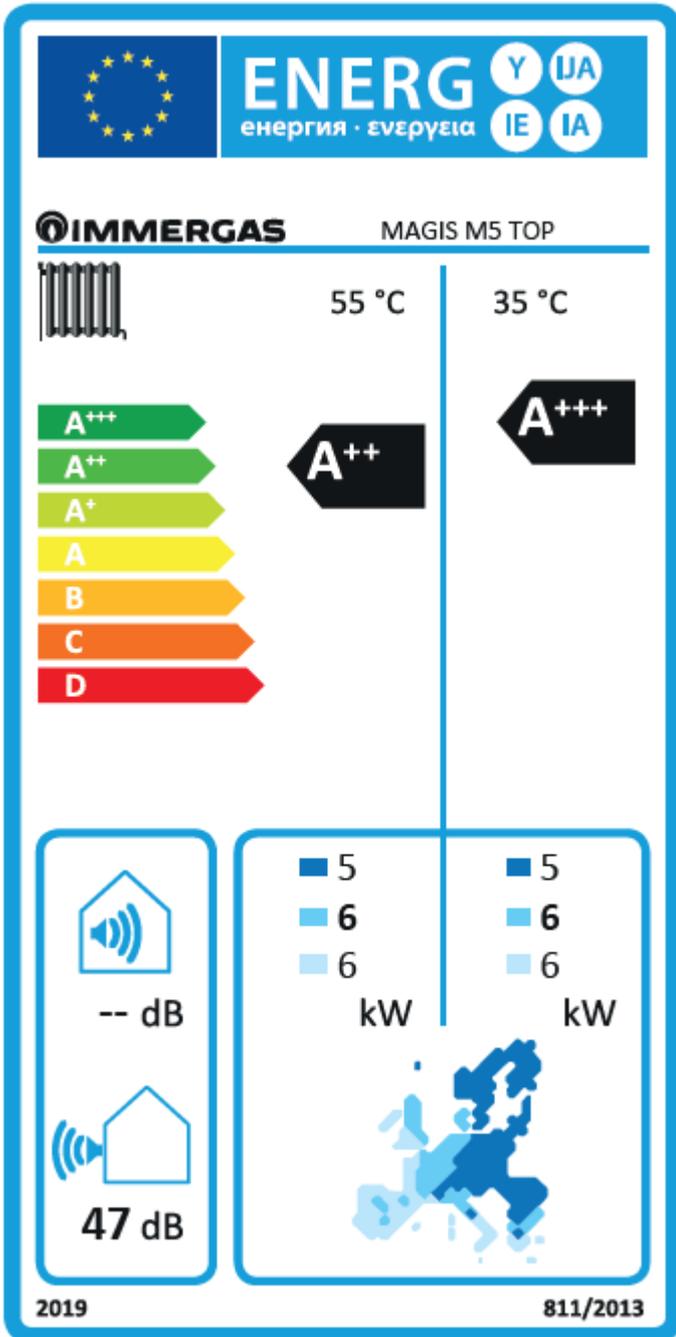
MAGIS M TOP – Product fiches

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MAGIS M5 TOP
MAGIS M5 TOP - Energy label



Cod. 1.049785 rev.000

MAGIS M5 TOP - Low temperature table (30/35) average climatic conditions

Model:				Magis M5 Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η_s	201	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	4,9	kW	Tj = -7°C	COPd	3,06	-
Tj = +2°C	Pdh	3,0	kW	Tj = +2°C	COPd	5,08	-
Tj = +7°C	Pdh	1,9	kW	Tj = +7°C	COPd	6,85	-
Tj = +12°C	Pdh	1,9	kW	Tj = +12°C	COPd	8,40	-
Tj = bivalent temperature	Pdh	4,9	kW	Tj = bivalent temperature	COPd	3,06	-
Tj = operation limit temperature	Pdh	4,9	kW	Tj = temperature operating limit	COPd	2,63	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcyh	-	kW	Cycling interval efficiency	COPcyh	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	P _{sup}	0,6	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5520	m ³ /h
Sound power level outdoors	L _{WA}	46	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M5 TOP - Medium temperature table (47/55) average climatic conditions

Model:				Magis M5 Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η_S	141	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	4,9	kW	Tj = -7°C	COPd	2,20	-
Tj = +2°C	Pdh	3,0	kW	Tj = +2°C	COPd	3,60	-
Tj = +7°C	Pdh	1,9	kW	Tj = +7°C	COPd	4,90	-
Tj = +12°C	Pdh	1,7	kW	Tj = +12°C	COPd	5,80	-
Tj = bivalent temperature	Pdh	4,9	kW	Tj = bivalent temperature	COPd	2,20	-
Tj = operation limit temperature	Pdh	4,8	kW	Tj = temperature operating limit	COPd	1,90	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcych	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	Psup	0,7	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5520	m3/h
Sound power level outdoors	L _{WA}	47	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m3/h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M5 TOP - Additional DHW data (EN 16147) – with Omnistor 300 - average climatic conditions

Energy class		A	
Declared Load Profile		XL	
Daily electrical energy consumption	Q_{elec}	7,15	kWh
Annual electrical energy consumption	AEC	1491	kWh
Water heating energy efficiency	η_{wh}	112	%
Daily fuel consumption	Q_{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ
Volume of mixed water at 40°C	V40	377,5	l
Seasonal Coefficient of performance	SCOP _{DHW}	2,67	

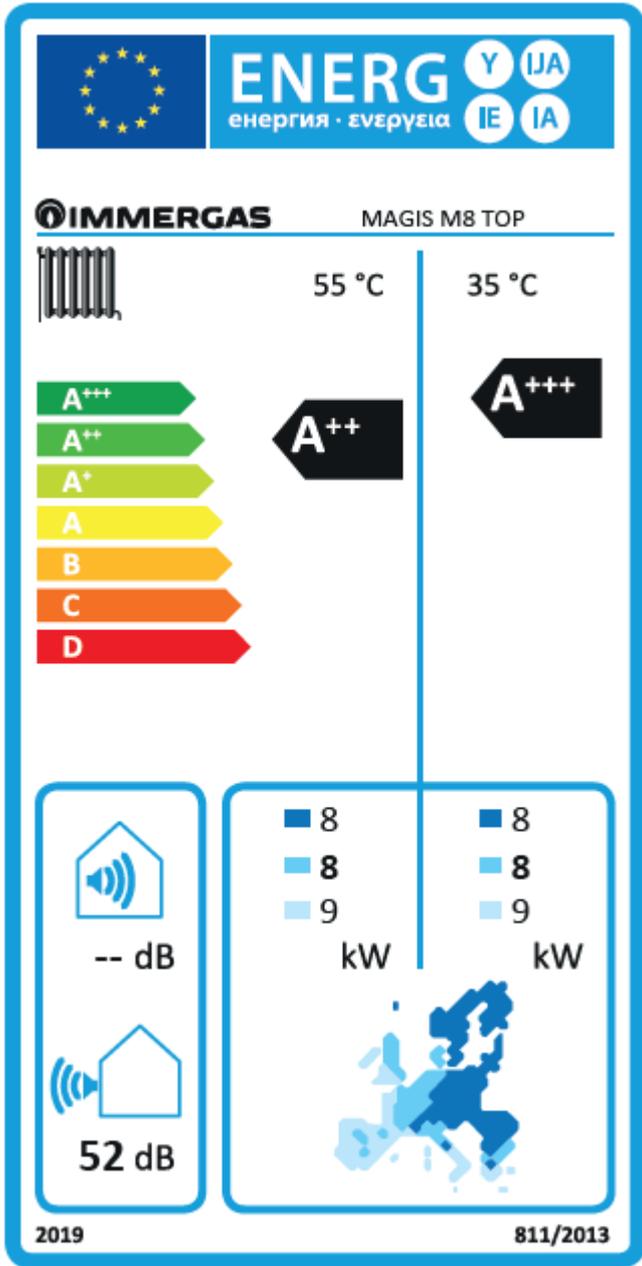
MAGIS M5 TOP - Refrigerant

Type of Refrigerant	R290	-
Factory Charging	630	g

MAGIS M5 TOP - Product Fiche

EU Regulation No. 811/2013 (Annex IV)					
A	Name or trademark of supplier		-	Immergas	
B	Supplier's model identifier		-	Magis M5 Top	
C	Space heating	Application temperature	-	Medium Temperature	
	Water heating	Declared load profile	-	-	
D	Space heating seasonal energy efficiency class		Medium Temperature	A++	
			Low Temperature	A+++	
	Water heating energy efficiency class		-	-	
E	Nominal heat output (average condition)		Medium Temperature	kW	6
			Low Temperature	kW	6
F	Annual energy consumption for space heating (average condition)		Medium Temperature	kWh	3148
			Low Temperature	kWh	2221
	Annual energy consumption for water heating (average condition)			kWh	-
G	Seasonal energy efficiency of space heating (average condition)		Medium Temperature	%	141
			Low Temperature	%	201
	Energy efficiency of water heating (average condition)			%	-
H	Sound power level Lwa indoors		dB	-	
I	Operation only during off-hours		(Yes/No)	No	
J	Specific precautions		-	-	
K	Nominal heat output (colder condition)		Medium Temperature	kW	5
			Low Temperature	kW	5
	Nominal heat output (warmer condition)		Medium Temperature	kW	6
			Low Temperature	kW	6
L	Annual energy consumption for space heating (colder condition)		Medium Temperature	kWh	3971
			Low Temperature	kWh	2863
	Annual energy consumption for space heating (warmer condition)		Medium Temperature	kWh	1533
			Low Temperature	kWh	1054
	Annual energy consumption for water heating (colder condition)			kWh	-
	Annual energy consumption for water heating (warmer condition)			kWh	-
M	Seasonal energy efficiency of space heating (colder condition)		Medium Temperature	%	121
			Low Temperature	%	169
	Seasonal energy efficiency of space heating (warmer condition)		Medium Temperature	%	187
			Low Temperature	%	271
N	Sound power level Lwa outdoors		dB	47	

MAGIS M8 TOP
MAGIS M8 TOP - Energy label



MAGIS M8 TOP - Low temperature table (30/35) average climatic conditions

Model:				Magis M8 Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	η_s	191	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	7,1	kW	Tj = -7°C	COPd	2,70	-
Tj = +2°C	Pdh	4,3	kW	Tj = +2°C	COPd	4,70	-
Tj = +7°C	Pdh	2,8	kW	Tj = +7°C	COPd	7,00	-
Tj = +12°C	Pdh	2,4	kW	Tj = +12°C	COPd	9,00	-
Tj = bivalent temperature	Pdh	7,1	kW	Tj = bivalent temperature	COPd	2,70	-
Tj = operation limit temperature	Pdh	7,4	kW	Tj = temperature operating limit	COPd	2,40	-
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcyh	-	kW	Cycling interval efficiency	COPcyh	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	P _{sup}	0,6	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5520	m ³ /h
Sound power level outdoors	L _{WA}	51	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M8 TOP - Medium temperature table (47/55) average climatic conditions

Model:				Magis M8 Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	η_s	139	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	7,1	kW	Tj = -7°C	COPd	2,00	-
Tj = +2°C	Pdh	4,3	kW	Tj = +2°C	COPd	3,40	-
Tj = +7°C	Pdh	2,8	kW	Tj = +7°C	COPd	5,10	-
Tj = +12°C	Pdh	2,4	kW	Tj = +12°C	COPd	6,00	-
Tj = bivalent temperature	Pdh	7,1	kW	Tj = bivalent temperature	COPd	2,00	-
Tj = operation limit temperature	Pdh	7,3	kW	Tj = temperature operating limit	COPd	1,90	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcych	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	Psup	0,7	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5520	m ³ /h
Sound power level outdoors	L _{WA}	52	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M8 TOP - Additional DHW data (EN 16147) – with Omnistor 300 - average climatic conditions

Energy class		A	
Declared Load Profile		XL	
Daily electrical energy consumption	Q_{elec}	7,47	kWh
Annual electrical energy consumption	AEC	1560	kWh
Water heating energy efficiency	η_{wh}	107	%
Daily fuel consumption	Q_{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ
Volume of mixed water at 40°C	V40	380,9	l
Seasonal Coefficient of performance	SCOP _{DHW}	2,55	

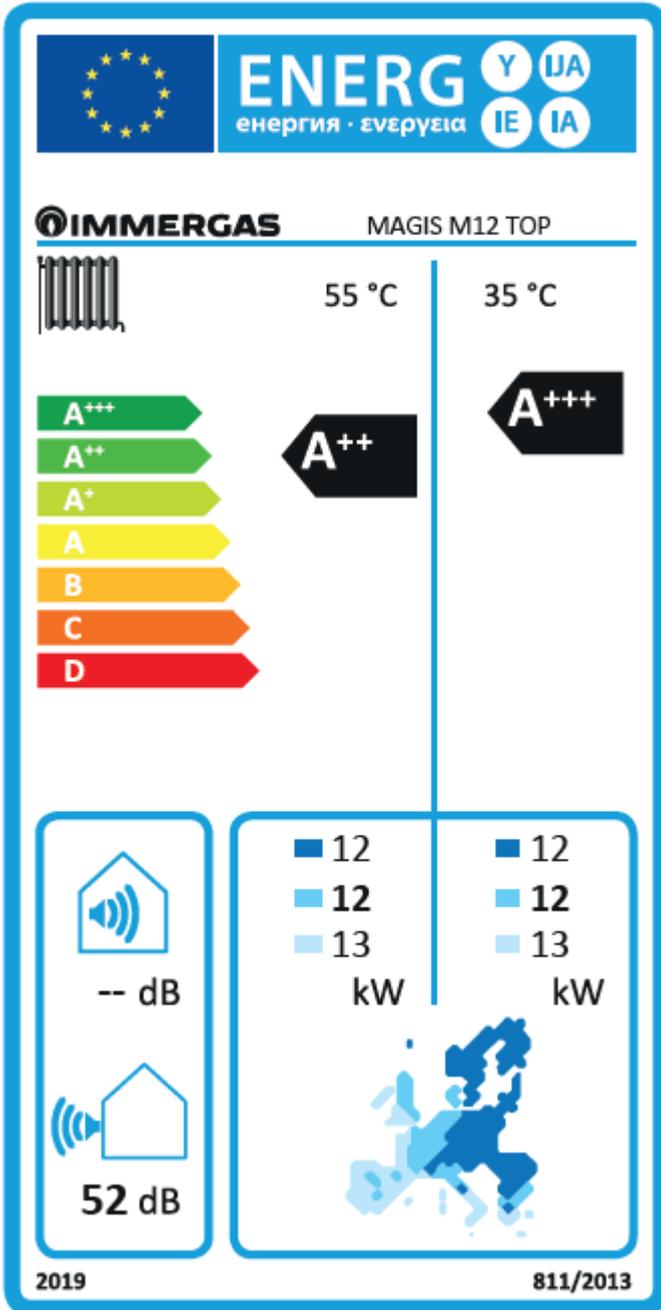
MAGIS M8 TOP - Refrigerant

Type of Refrigerant	R290	-
Factory Charging	870	g

MAGIS M8 TOP - Product Fiche

EU Regulation No. 811/2013 (Annex IV)					
A	Name or trademark of supplier		-	Immergas	
B	Supplier's model identifier		-	Magis M8 Top	
C	Space heating	Application temperature	-	Medium Temperature	
	Water heating	Declared load profile	-	-	
D	Space heating seasonal energy efficiency class		Medium Temperature	A++	
			Low Temperature	A+++	
	Water heating energy efficiency class		-	-	
E	Nominal heat output (average condition)		Medium Temperature	kW	8
			Low Temperature	kW	8
F	Annual energy consumption for space heating (average condition)		Medium Temperature	kWh	4646
			Low Temperature	kWh	3398
	Annual energy consumption for water heating (average condition)			kWh	-
G	Seasonal energy efficiency of space heating (average condition)		Medium Temperature	%	139
			Low Temperature	%	191
	Energy efficiency of water heating (average condition)			%	-
H	Sound power level Lwa indoors		dB	-	
I	Operation only during off-hours		(Yes/No)	No	
J	Specific precautions		-	-	
K	Nominal heat output (colder condition)		Medium Temperature	kW	8
			Low Temperature	kW	8
	Nominal heat output (warmer condition)		Medium Temperature	kW	9
			Low Temperature	kW	9
L	Annual energy consumption for space heating (colder condition)		Medium Temperature	kWh	6034
			Low Temperature	kWh	4636
	Annual energy consumption for space heating (warmer condition)		Medium Temperature	kWh	2326
			Low Temperature	kWh	1680
	Annual energy consumption for water heating (colder condition)			kWh	-
	Annual energy consumption for water heating (warmer condition)			kWh	-
M	Seasonal energy efficiency of space heating (colder condition)		Medium Temperature	%	128
			Low Temperature	%	167
	Seasonal energy efficiency of space heating (warmer condition)		Medium Temperature	%	191
			Low Temperature	%	265
N	Sound power level Lwa outdoors		dB	52	

MAGIS M12 TOP
MAGIS M12 TOP - Energy label



Cod. 1.049779 rev.000

MAGIS M12 TOP - Low temperature table (30/35) average climatic conditions

Model:				Magis M12 Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_s	193	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	10,6	kW	Tj = -7°C	COPd	2,95	-
Tj = +2°C	Pdh	6,5	kW	Tj = +2°C	COPd	4,83	-
Tj = +7°C	Pdh	4,2	kW	Tj = +7°C	COPd	6,50	-
Tj = +12°C	Pdh	4,2	kW	Tj = +12°C	COPd	8,00	-
Tj = bivalent temperature	Pdh	10,6	kW	Tj = bivalent temperature	COPd	2,95	-
Tj = operation limit temperature	Pdh	11,6	kW	Tj = temperature operating limit	COPd	2,46	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcyh	-	kW	Cycling interval efficiency	COPcyh	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	P _{sup}	0,4	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5700	m ³ /h
Sound power level outdoors	L _{WA}	52	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M12 TOP - Medium temperature table (47/55) average climatic conditions

Model:				Magis M12 Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_S	143	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	10,6	kW	Tj = -7°C	COPd	2,20	-
Tj = +2°C	Pdh	6,5	kW	Tj = +2°C	COPd	3,60	-
Tj = +7°C	Pdh	4,2	kW	Tj = +7°C	COPd	4,90	-
Tj = +12°C	Pdh	4,2	kW	Tj = +12°C	COPd	6,00	-
Tj = bivalent temperature	Pdh	10,6	kW	Tj = bivalent temperature	COPd	2,20	-
Tj = operation limit temperature	Pdh	11,5	kW	Tj = temperature operating limit	COPd	1,90	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcych	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	Psup	0,5	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5700	m3/h
Sound power level outdoors	L _{WA}	52	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m3/h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M12 TOP - Additional DHW data (EN 16147) – with Omnistor 300 - average climatic conditions

Energy class		A	
Declared Load Profile		XXL	
Daily electrical energy consumption	Q_{elec}	9,57	kWh
Annual electrical energy consumption	AEC	2102	kWh
Water heating energy efficiency	η_{wh}	103	%
Daily fuel consumption	Q_{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ
Volume of mixed water at 40°C	V40	380,5	l
Seasonal Coefficient of performance	SCOP _{DHW}	2,56	

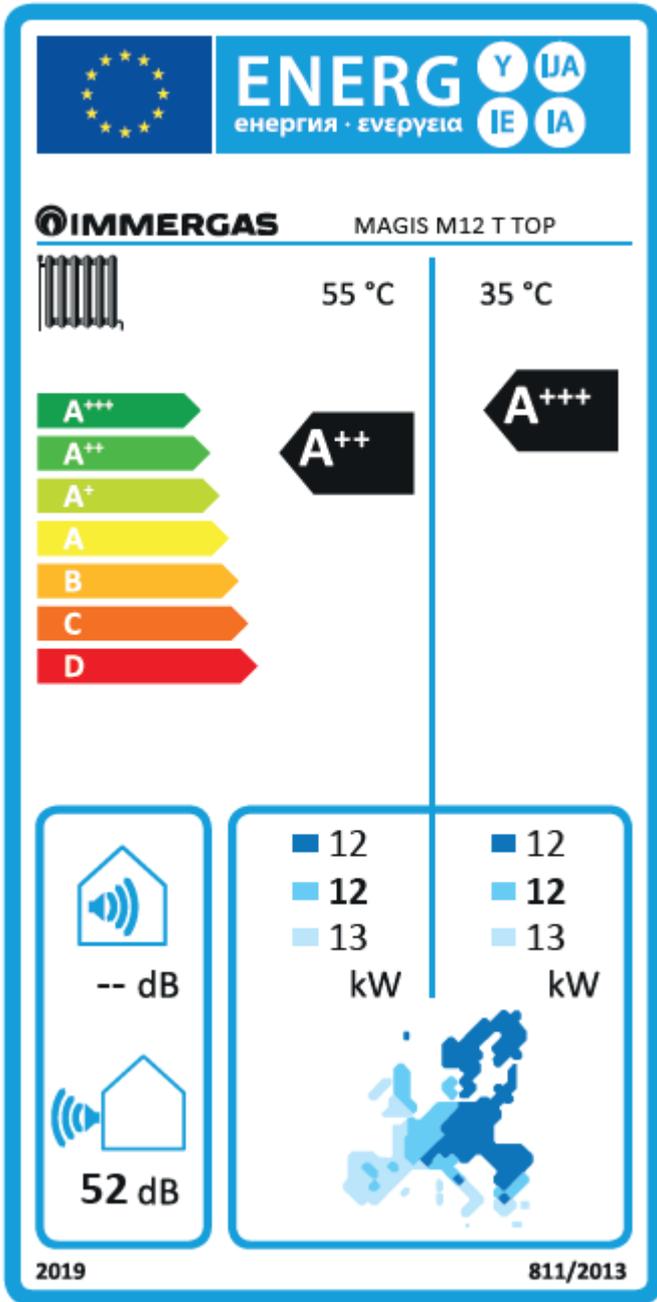
MAGIS M12 TOP - Refrigerant

Type of Refrigerant	R290	-
Factory Charging	1250	g

MAGIS M12 TOP - Product Fiche

EU Regulation No. 811/2013 (Annex IV)					
A	Name or trademark of supplier		-	Immergas	
B	Supplier's model identifier		-	Magis M12 Top	
C	Space heating	Application temperature	-	Medium Temperature	
	Water heating	Declared load profile	-	-	
D	Space heating seasonal energy efficiency class		Medium Temperature	A++	
			Low Temperature	A+++	
	Water heating energy efficiency class		-	-	
E	Nominal heat output (average condition)		Medium Temperature	kW	12
			Low Temperature	kW	12
F	Annual energy consumption for space heating (average condition)		Medium Temperature	kWh	6784
			Low Temperature	kWh	5051
	Annual energy consumption for water heating (average condition)			kWh	-
G	Seasonal energy efficiency of space heating (average condition)		Medium Temperature	%	143
			Low Temperature	%	193
	Energy efficiency of water heating (average condition)			%	-
H	Sound power level Lwa indoors			dB	-
I	Operation only during off-hours		(Yes/No)		No
J	Specific precautions				-
K	Nominal heat output (colder condition)		Medium Temperature	kW	12
			Low Temperature	kW	12
	Nominal heat output (warmer condition)		Medium Temperature	kW	13
			Low Temperature	kW	13
L	Annual energy consumption for space heating (colder condition)		Medium Temperature	kWh	9336
			Low Temperature	kWh	7001
	Annual energy consumption for space heating (warmer condition)		Medium Temperature	kWh	3631
			Low Temperature	kWh	2549
	Annual energy consumption for water heating (colder condition)			kWh	-
Annual energy consumption for water heating (warmer condition)			kWh	-	
M	Seasonal energy efficiency of space heating (colder condition)		Medium Temperature	%	124
			Low Temperature	%	166
	Seasonal energy efficiency of space heating (warmer condition)		Medium Temperature	%	180
			Low Temperature	%	257
N	Sound power level Lwa outdoors			dB	52

MAGIS M12T TOP
MAGIS M12T TOP - Energy label



MAGIS M12T TOP - Low temperature table (30/35) average climatic conditions

Model:				Magis M12T Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_S	193	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	10,6	kW	Tj = -7°C	COPd	2,95	-
Tj = +2°C	Pdh	6,5	kW	Tj = +2°C	COPd	4,83	-
Tj = +7°C	Pdh	4,2	kW	Tj = +7°C	COPd	6,50	-
Tj = +12°C	Pdh	4,2	kW	Tj = +12°C	COPd	8,00	-
Tj = bivalent temperature	Pdh	10,6	kW	Tj = bivalent temperature	COPd	2,95	-
Tj = operation limit temperature	Pdh	11,6	kW	Tj = temperature operating limit	COPd	2,46	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcyh	-	kW	Cycling interval efficiency	COPcyh	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	P _{sup}	0,4	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5700	m ³ /h
Sound power level outdoors	L _{WA}	52	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M12T TOP - Medium temperature table (47/55) average climatic conditions

Model:				Magis M12T Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_S	143	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	10,6	kW	Tj = -7°C	COPd	2,20	-
Tj = +2°C	Pdh	6,5	kW	Tj = +2°C	COPd	3,60	-
Tj = +7°C	Pdh	4,2	kW	Tj = +7°C	COPd	4,90	-
Tj = +12°C	Pdh	4,2	kW	Tj = +12°C	COPd	6,00	-
Tj = bivalent temperature	Pdh	10,6	kW	Tj = bivalent temperature	COPd	2,20	-
Tj = operation limit temperature	Pdh	11,5	kW	Tj = temperature operating limit	COPd	1,90	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcych	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	Psup	0,5	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5700	m3/h
Sound power level outdoors	L _{WA}	52	dB				
NOx emissions	NO x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m3/h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M12T TOP - Additional DHW data (EN 16147) – with Omnistor 300 - average climatic conditions

Energy class		A	
Declared Load Profile		XXL	
Daily electrical energy consumption	Q_{elec}	9,57	kWh
Annual electrical energy consumption	AEC	2102	kWh
Water heating energy efficiency	η_{wh}	103	%
Daily fuel consumption	Q_{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ
Volume of mixed water at 40°C	V40	380,5	l
Seasonal Coefficient of performance	SCOP _{DHW}	2,56	

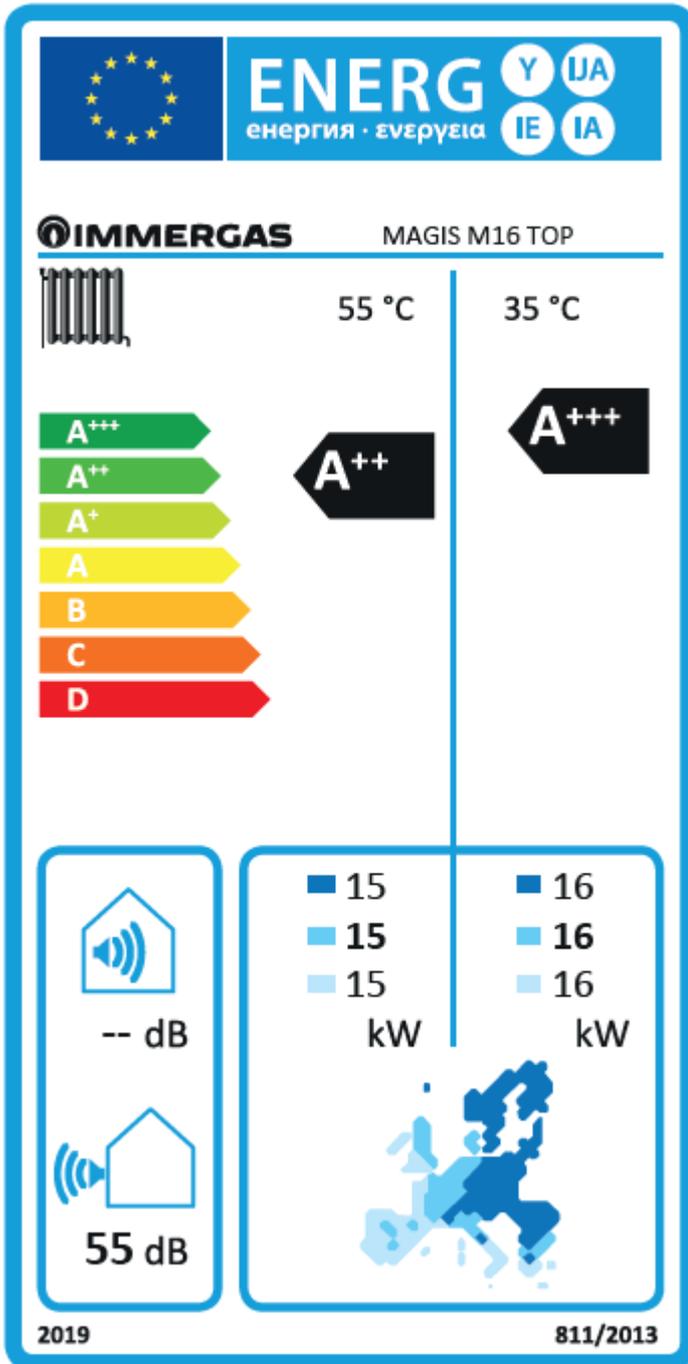
MAGIS M12T TOP - Refrigerant

Type of Refrigerant	R290	-
Factory Charging	1250	g

MAGIS M12T TOP - Product Fiche

EU Regulation No. 811/2013 (Annex IV)				
A	Name or trademark of supplier		-	Immergas
B	Supplier's model identifier		-	Magis M12T Top
C	Space heating	Application temperature	-	Medium Temperature
	Water heating	Declared load profile	-	-
D	Space heating seasonal energy efficiency class		Medium Temperature	A++
			Low Temperature	A+++
	Water heating energy efficiency class		-	-
E	Nominal heat output (average condition)		Medium Temperature	kW 12
			Low Temperature	kW 12
F	Annual energy consumption for space heating (average condition)		Medium Temperature	kWh 6784
			Low Temperature	kWh 5051
	Annual energy consumption for water heating (average condition)		kWh	-
G	Seasonal energy efficiency of space heating (average condition)		Medium Temperature	% 143
			Low Temperature	% 193
	Energy efficiency of water heating (average condition)		%	-
H	Sound power level Lwa indoors		dB	-
I	Operation only during off-hours		(Yes/No)	No
J	Specific precautions		-	-
K	Nominal heat output (colder condition)		Medium Temperature	kW 12
			Low Temperature	kW 12
	Nominal heat output (warmer condition)		Medium Temperature	kW 13
			Low Temperature	kW 13
L	Annual energy consumption for space heating (colder condition)		Medium Temperature	kWh 9336
			Low Temperature	kWh 7001
	Annual energy consumption for space heating (warmer condition)		Medium Temperature	kWh 3631
			Low Temperature	kWh 2549
	Annual energy consumption for water heating (colder condition)		kWh	-
Annual energy consumption for water heating (warmer condition)		kWh	-	
M	Seasonal energy efficiency of space heating (colder condition)		Medium Temperature	% 124
			Low Temperature	% 166
	Seasonal energy efficiency of space heating (warmer condition)		Medium Temperature	% 180
			Low Temperature	% 257
N	Sound power level Lwa outdoors		dB	52

MAGIS M16 TOP
MAGIS M16 TOP - Energy label



Cod. 1.050449 rev.000

MAGIS M16 TOP - Low temperature table (30/35) average climatic conditions

Model:				Magis M16 Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW	Seasonal space heating energy efficiency	η_s	185	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	13,7	kW	Tj = -7°C	COPd	2,50	-
Tj = +2°C	Pdh	8,4	kW	Tj = +2°C	COPd	4,52	-
Tj = +7°C	Pdh	5,4	kW	Tj = +7°C	COPd	7,10	-
Tj = +12°C	Pdh	4,2	kW	Tj = +12°C	COPd	9,00	-
Tj = bivalent temperature	Pdh	13,7	kW	Tj = bivalent temperature	COPd	2,50	-
Tj = operation limit temperature	Pdh	13,5	kW	Tj = temperature operating limit	COPd	2,31	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcyh	-	kW	Cycling interval efficiency	COPcyh	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	P _{sup}	2,0	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5700	m ³ /h
Sound power level outdoors	L _{WA}	54	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M16 TOP - Medium temperature table (47/55) average climatic conditions

Model:				Magis M16 Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	η_s	139	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	12,8	kW	Tj = -7°C	COPd	2,00	-
Tj = +2°C	Pdh	7,8	kW	Tj = +2°C	COPd	3,40	-
Tj = +7°C	Pdh	5,0	kW	Tj = +7°C	COPd	5,10	-
Tj = +12°C	Pdh	4,2	kW	Tj = +12°C	COPd	6,60	-
Tj = bivalent temperature	Pdh	12,8	kW	Tj = bivalent temperature	COPd	2,00	-
Tj = operation limit temperature	Pdh	12,5	kW	Tj = temperature operating limit	COPd	1,90	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcych	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	Psup	2,0	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5700	m3/h
Sound power level outdoors	L _{WA}	55	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m3/h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M16 TOP - Additional DHW data (EN 16147) – with Omnistor 500 - average climatic conditions

Energy class		A	
Declared Load Profile		XXL	
Daily electrical energy consumption	Q_{elec}	9,83	kWh
Annual electrical energy consumption	AEC	2160	kWh
Water heating energy efficiency	η_{wh}	100	%
Daily fuel consumption	Q_{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ
Volume of mixed water at 40°C	V40	664,8	l
Seasonal Coefficient of performance	SCOP _{DHW}	2,5	

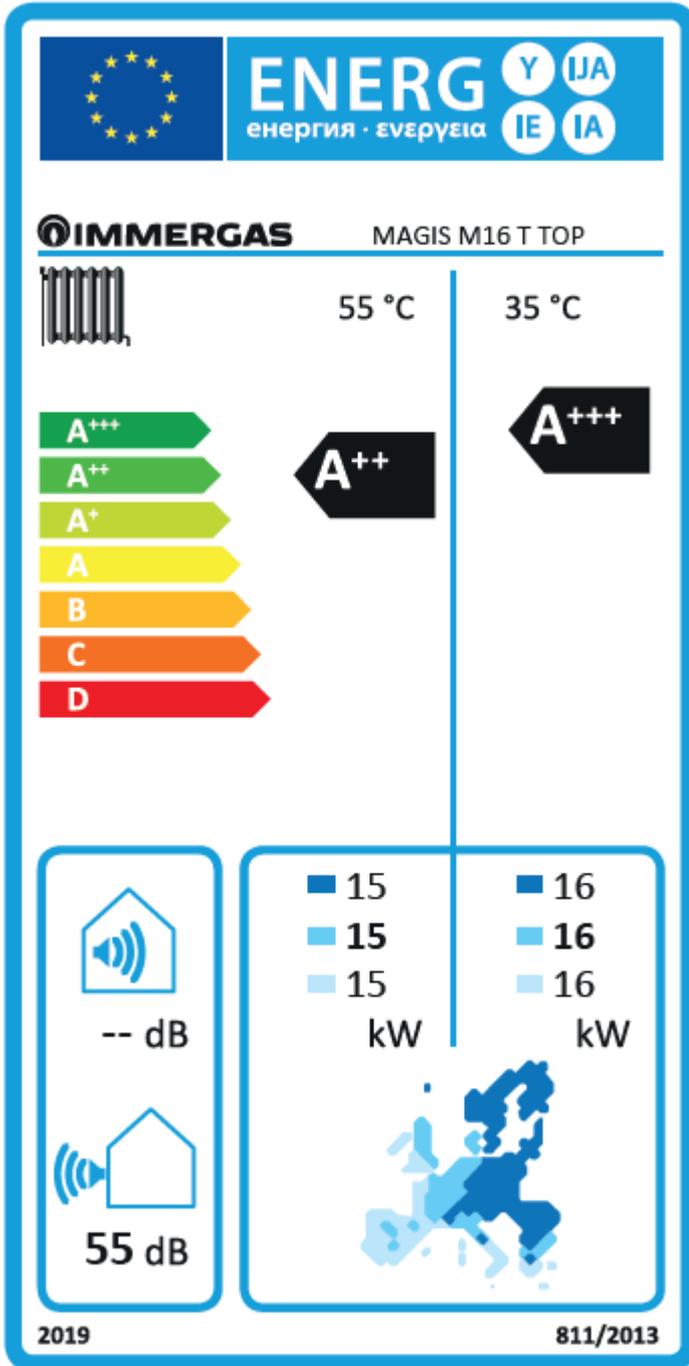
MAGIS M16 TOP - Refrigerant

Type of Refrigerant	R290	-
Factory Charging	1250	g

MAGIS M16 TOP - Product Fiche

EU Regulation No. 811/2013 (Annex IV)				
A	Name or trademark of supplier		-	Immergas
B	Supplier's model identifier		-	Magis M16 Top
C	Space heating	Application temperature	-	Medium Temperature
	Water heating	Declared load profile	-	-
D	Space heating seasonal energy efficiency class		Medium Temperature	A++
			Low Temperature	A+++
	Water heating energy efficiency class		-	-
E	Nominal heat output (average condition)		Medium Temperature	kW 15
			Low Temperature	kW 16
F	Annual energy consumption for space heating (average condition)		Medium Temperature	kWh 8403
			Low Temperature	kWh 6793
	Annual energy consumption for water heating (average condition)		kWh	-
G	Seasonal energy efficiency of space heating (average condition)		Medium Temperature	% 139
			Low Temperature	% 185
	Energy efficiency of water heating (average condition)		%	-
H	Sound power level Lwa indoors		dB	-
I	Operation only during off-hours		(Yes/No)	No
J	Specific precautions		-	-
K	Nominal heat output (colder condition)		Medium Temperature	kW 15
			Low Temperature	kW 16
	Nominal heat output (warmer condition)		Medium Temperature	kW 15
			Low Temperature	kW 16
L	Annual energy consumption for space heating (colder condition)		Medium Temperature	kWh 11097
			Low Temperature	kWh 9045
	Annual energy consumption for space heating (warmer condition)		Medium Temperature	kWh 4087
			Low Temperature	kWh 3151
	Annual energy consumption for water heating (colder condition)		kWh	-
Annual energy consumption for water heating (warmer condition)		kWh	-	
M	Seasonal energy efficiency of space heating (colder condition)		Medium Temperature	% 126
			Low Temperature	% 166
	Seasonal energy efficiency of space heating (warmer condition)		Medium Temperature	% 186
			Low Temperature	% 259
N	Sound power level Lwa outdoors		dB	55

MAGIS M16T TOP
 MAGIS M16T TOP - Energy label



Cod. 1.050451 rev.000

MAGIS M16T TOP - Low temperature table (30/35) average climatic conditions

Model:				Magis M16T Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW	Seasonal space heating energy efficiency	η_S	185	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	13,7	kW	Tj = -7°C	COPd	2,50	-
Tj = +2°C	Pdh	8,4	kW	Tj = +2°C	COPd	4,52	-
Tj = +7°C	Pdh	5,4	kW	Tj = +7°C	COPd	7,10	-
Tj = +12°C	Pdh	4,2	kW	Tj = +12°C	COPd	9,00	-
Tj = bivalent temperature	Pdh	13,7	kW	Tj = bivalent temperature	COPd	2,50	-
Tj = operation limit temperature	Pdh	13,5	kW	Tj = temperature operating limit	COPd	2,31	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcych	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	P _{sup}	2,0	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5700	m ³ /h
Sound power level outdoors	L _{WA}	54	dB				
NOx emissions	NO _x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M16T TOP - Medium temperature table (47/55) average climatic conditions

Model:				Magis M16T Top			
Air-to-water heat pump				YES			
Water-to-water heat pump				NO			
Brine-to-water heat pump				NO			
Low-temperature heat pump				NO			
Equipped with a supplementary heater				NO			
Heat pump combination heater				NO			
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	η_s	139	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	12,8	kW	Tj = -7°C	COPd	2,00	-
Tj = +2°C	Pdh	7,8	kW	Tj = +2°C	COPd	3,40	-
Tj = +7°C	Pdh	5,0	kW	Tj = +7°C	COPd	5,10	-
Tj = +12°C	Pdh	4,2	kW	Tj = +12°C	COPd	6,60	-
Tj = bivalent temperature	Pdh	12,8	kW	Tj = bivalent temperature	COPd	2,00	-
Tj = operation limit temperature	Pdh	12,5	kW	Tj = temperature operating limit	COPd	1,90	-
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	T biv	-7,0	°C	For air/water heat pumps: temperature operating limit	TOL	-10	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcych	-	-
Degradation co-efficient (**)	Cdh	0,9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
OFF mode	P _{OFF}	0,022	kW	Rated heat output (*)	P _{sup}	2,0	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input		electrical	
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		5700	m ³ /h
Sound power level outdoors	L _{WA}	55	dB				
NOx emissions	NO x	-	mg/kWh	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact information: Immergas S.p.A. via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design heating load Pdesignh and the rated heat output of a supplementary heater Psup is equal to the supplementary heating capacity sup(Tj).							
(**) If Cdh is not determined by measurement, the degradation coefficient is Cdh = 0,9.							

MAGIS M16T TOP - Additional DHW data (EN 16147) – with Omnistor 500 - average climatic conditions

Energy class		A	
Declared Load Profile		XXL	
Daily electrical energy consumption	Q_{elec}	9,83	kWh
Annual electrical energy consumption	AEC	2160	kWh
Water heating energy efficiency	η_{wh}	100	%
Daily fuel consumption	Q_{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ
Volume of mixed water at 40°C	V40	664,8	l
Seasonal Coefficient of performance	SCOP _{DHW}	2,5	

MAGIS M16T TOP - Refrigerant

Type of Refrigerant	R290	-
Factory Charging	1250	g

MAGIS M16T TOP - Product Fiche

EU Regulation No. 811/2013 (Annex IV)					
A	Name or trademark of supplier		-	Immergas	
B	Supplier's model identifier		-	Magis M16T Top	
C	Space heating	Application temperature	-	Medium Temperature	
	Water heating	Declared load profile	-	-	
D	Space heating seasonal energy efficiency class		Medium Temperature	A++	
			Low Temperature	A+++	
	Water heating energy efficiency class		-	-	
E	Nominal heat output (average condition)		Medium Temperature	kW	15
			Low Temperature	kW	16
F	Annual energy consumption for space heating (average condition)		Medium Temperature	kWh	8403
			Low Temperature	kWh	6793
	Annual energy consumption for water heating (average condition)			kWh	-
G	Seasonal energy efficiency of space heating (average condition)		Medium Temperature	%	139
			Low Temperature	%	185
	Energy efficiency of water heating (average condition)			%	-
H	Sound power level Lwa indoors		dB	-	
I	Operation only during off-hours		(Yes/No)	No	
J	Specific precautions		-	-	
K	Nominal heat output (colder condition)		Medium Temperature	kW	15
			Low Temperature	kW	16
	Nominal heat output (warmer condition)		Medium Temperature	kW	15
			Low Temperature	kW	16
L	Annual energy consumption for space heating (colder condition)		Medium Temperature	kWh	11097
			Low Temperature	kWh	9045
	Annual energy consumption for space heating (warmer condition)		Medium Temperature	kWh	4087
			Low Temperature	kWh	3151
	Annual energy consumption for water heating (colder condition)			kWh	-
Annual energy consumption for water heating (warmer condition)			kWh	-	
M	Seasonal energy efficiency of space heating (colder condition)		Medium Temperature	%	126
			Low Temperature	%	166
	Seasonal energy efficiency of space heating (warmer condition)		Medium Temperature	%	186
			Low Temperature	%	259
N	Sound power level Lwa outdoors		dB	55	