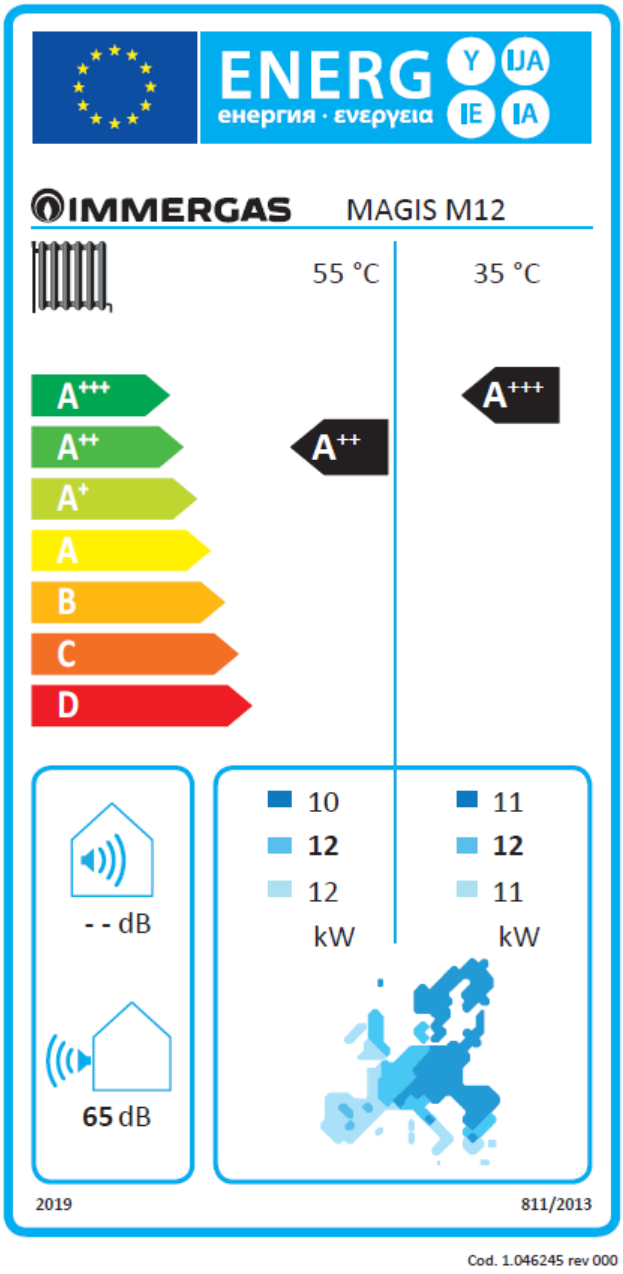
MAGIS M12 – Product fiches

Summary

MAGIS M12

Magis M12 - Energetic labels



Cod. 1.046245 rev 000

Magis M12 - Low temperature table (30/35) average zones

Low temperature table (30/35) average zones

Model: **Magis M12**							
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							
The parameters are declared for average climatic conditions							
Element	**Symbol**	**Value**	**Unit**		**Element**	**Symbol**	**Value**	**Unit**
Rated heat output	*Prated*	12	kW		**Seasonal space heating energy efficiency**	η_S	189	%
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 T_j			
$T_j = -7$ °C	*Pdh*	10.6	kW		$T_j = -7$ °C	*COPd*	2.88	–
$T_j = +2$ °C	*Pdh*	6.7	kW		$T_j = +2$ °C	*COPd*	4.65	–
$T_j = +7$ °C	*Pdh*	4.4	kW		$T_j = +7$ °C	*COPd*	6.62	–
$T_j = +12$ °C	*Pdh*	3.7	kW		$T_j = +12$ °C	*COPd*	8.47	–
T_j = bivalent temperature	*Pdh*	10.6	kW		T_j = bivalent temperature	*COPd*	2.88	–
T_j = operation limit temperature	*Pdh*	10.7	kW		T_j = temperature operating limit	*COPd*	2.77	–
for air-to-water heat pumps: $T_j = -15$ °C (if TOL < – 20 °C)	*Pdh*	-	kW		For air-to-water heat pumps: $T_j = -15$ °C (if TOL < – 20 °C)	*COPd*	-	–
Bivalent temperature	T_{biv}	-7	°C		For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW		Cycling interval efficiency	*COPcyc or PERcyc*	-	–
Degradation co-efficient	*Cdh*	0.9	—		Heating water operating limit temperature	*WTOL*	65	°C
Power consumption in modes other than active mode					Supplementary heater			
OFF mode	P_{OFF}	0.014	kW		Rated heat output	*Psup*	1.26	kW
Thermostat-off mode	P_{TO}	0.024	kW		Type of energy input	Electrical		
Standby mode	P_{SB}	0.014	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		4060	m^3/h
Sound power level, indoors/outdoors	L_{WA}	-/65	dB		For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m^3/h
Annual energy consumption	Q_{HE}	5152	kWh or GJ					
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
Annual electricity consumption	*AEC*	-	kWh		Annual fuel consumption	*AFC*	-	GJ
Contact information	IMMERGAS S.p.A via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							

Magis M12 - Medium temperature table (47/55) average zones

Medium temperature table (47/55) average zones

Model: **Magis M12**							
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							
The parameters are declared for average climatic conditions							
Element	**Symbol**	**Value**	**Unit**		**Element**	**Symbol**	**Value**	**Unit**
Rated heat output	*Prated*	12	kW		**Seasonal space heating energy efficiency**	η_S	135	%
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 T_j			
T_j = – 7 °C	*Pdh*	10.2	kW		T_j = – 7 °C	*COPd*	2.01	–
T_j = + 2 °C	*Pdh*	6.5	kW		T_j = + 2 °C	*COPd*	3.44	–
T_j = + 7 °C	*Pdh*	4.4	kW		T_j = + 7 °C	*COPd*	4.59	–
T_j = + 12 °C	*Pdh*	3.3	kW		T_j = + 12 °C	*COPd*	6.05	–
T_j = bivalent temperature	*Pdh*	10.2	kW		T_j = bivalent temperature	*COPd*	2.01	–
T_j = operation limit temperature	*Pdh*	9.1	kW		T_j = temperature operating limit	*COPd*	1.79	–
for air-to-water heat pumps: T_j = – 15 °C (if TOL < – 20 °C)	*Pdh*	-	kW		For air-to-water heat pumps: T_j = – 15 °C (if TOL < – 20 °C)	*COPd*	-	–
Bivalent temperature	T_{biv}	-7	°C		For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW		Cycling interval efficiency	*COPcyc or PERcyc*	-	–
Degradation co-efficient	*Cdh*	0.9	—		Heating water operating limit temperature	*WTOL*	65	°C
Power consumption in modes other than active mode					Supplementary heater			
OFF mode	P_{OFF}	0.014	kW		Rated heat output	*Psup*	2.5	kW
Thermostat-off mode	P_{TO}	0.024	kW		Type of energy input	Electrical		
Standby mode	P_{SB}	0.014	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		4060	m^3/h
Sound power level, indoors/outdoors	L_{WA}	-/65	dB		For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m^3/h
Annual energy consumption	Q_{HE}	6927	kWh or GJ					
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
Annual electricity consumption	*AEC*	-	kWh		Annual fuel consumption	*AFC*	-	GJ
Contact information	IMMERGAS S.p.A via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							

Magis M12 + Omnistor 300 - Low temperature table (30/35) average zones

Low temperature table (30/35) average zones

Model: **Magis M12 + Omnistor 300**							
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: yes							
The parameters are declared for average climatic conditions							
Element	**Symbol**	**Value**	**Unit**		**Element**	**Symbol**	**Value**	**Unit**
Rated heat output	*Prated*	12	kW		**Seasonal space heating energy efficiency**	η_S	189	%
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 T_j			
$T_j = -7$ °C	*Pdh*	10.6	kW		$T_j = -7$ °C	*COPd*	2.88	–
$T_j = +2$ °C	*Pdh*	6.7	kW		$T_j = +2$ °C	*COPd*	4.65	–
$T_j = +7$ °C	*Pdh*	4.4	kW		$T_j = +7$ °C	*COPd*	6.62	–
$T_j = +12$ °C	*Pdh*	3.7	kW		$T_j = +12$ °C	*COPd*	8.47	–
T_j = bivalent temperature	*Pdh*	10.6	kW		T_j = bivalent temperature	*COPd*	2.88	–
T_j = operation limit temperature	*Pdh*	10.7	kW		T_j = temperature operating limit	*COPd*	2.77	–
for air-to-water heat pumps: $T_j = -15$ °C (if TOL < – 20 °C)	*Pdh*	-	kW		For air-to-water heat pumps: $T_j = -15$ °C (if TOL < – 20 °C)	*COPd*	-	–
Bivalent temperature	T_{biv}	-7	°C		For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW		Cycling interval efficiency	*COPcyc or PERcyc*	-	–
Degradation co-efficient	*Cdh*	0.9	—		Heating water operating limit temperature	*WTOL*	65	°C
Power consumption in modes other than active mode					Supplementary heater			
OFF mode	P_{OFF}	0.014	kW		Rated heat output	*Psup*	1.26	kW
Thermostat-off mode	P_{TO}	0.024	kW		Type of energy input	Electrical		
Standby mode	P_{SB}	0.014	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		4060	m^3/h
Sound power level, indoors/outdoors	L_{WA}	-/65	dB		For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m^3/h
Annual energy consumption	Q_{HE}	5152	kWh or GJ					
For heat pump combination heater:								
Declared load profile	XL				**Water heating energy efficiency**	η_{wh}	91	%
Daily electricity consumption	Q_{elec}	9.045	kWh		Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	*AEC*	1839	kWh		Annual fuel consumption	*AFC*	-	GJ
Contact information	IMMERGAS S.p.A via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							

Magis M12 + Omnistor 300 - Medium temperature table (47/55) average zones

Medium temperature table (47/55) average zones

Model: **Magis M12 + Omnistor 300**							
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: yes							
The parameters are declared for average climatic conditions							
Element	**Symbol**	**Value**	**Unit**		**Element**	**Symbol**	**Value**	**Unit**
Rated heat output	*Prated*	12	kW		**Seasonal space heating energy efficiency**	η_S	135	%
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 T_j			
$T_j = -7$ °C	*Pdh*	10.2	kW		$T_j = -7$ °C	*COPd*	2.01	–
$T_j = +2$ °C	*Pdh*	6.5	kW		$T_j = +2$ °C	*COPd*	3.44	–
$T_j = +7$ °C	*Pdh*	4.4	kW		$T_j = +7$ °C	*COPd*	4.59	–
$T_j = +12$ °C	*Pdh*	3.3	kW		$T_j = +12$ °C	*COPd*	6.05	–
T_j = bivalent temperature	*Pdh*	10.2	kW		T_j = bivalent temperature	*COPd*	2.01	–
T_j = operation limit temperature	*Pdh*	9.1	kW		T_j = temperature operating limit	*COPd*	1.79	–
for air-to-water heat pumps: $T_j = -15$ °C (if TOL < – 20 °C)	*Pdh*	-	kW		For air-to-water heat pumps: $T_j = -15$ °C (if TOL < – 20 °C)	*COPd*	-	–
Bivalent temperature	T_{biv}	-7	°C		For air/water heat pumps: temperature operating limit	*TOL*	-10	°C
Cycling interval capacity for heating	*Pcych*	-	kW		Cycling interval efficiency	*COPcyc or PERcyc*	-	–
Degradation co-efficient	*Cdh*	0.9	—		Heating water operating limit temperature	*WTOL*	65	°C
Power consumption in modes other than active mode					Supplementary heater			
OFF mode	P_{OFF}	0.014	kW		Rated heat output	*Psup*	2.5	kW
Thermostat-off mode	P_{TO}	0.024	kW		Type of energy input	Electrical		
Standby mode	P_{SB}	0.014	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		4060	m^3/h
Sound power level, indoors/outdoors	L_{WA}	-/65	dB		For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	m^3/h
Annual energy consumption	Q_{HE}	6927	kWh or GJ					
For heat pump combination heater:								
Declared load profile	XL				**Water heating energy efficiency**	η_{wh}	91	%
Daily electricity consumption	Q_{elec}	9.045	kWh		Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	*AEC*	1839	kWh		Annual fuel consumption	*AFC*	-	GJ
Contact information	IMMERGAS S.p.A via Cisa Ligure n.95 - 42041 Brescello (RE) Italy							

Additional DHW data

Model: **Magis M12 + Omnistor 300**							
Heat pump with storage tank							
Declared Load Profile	XL			**Water heating energy efficiency**	η_{wh}	91.1	%
Daily electrical energy consumption	Q_{elec}	9.045	kWh	COP (at 7°C)	COP_{DHW}	2.11	
Annual electrical energy consumption	AEC	1839	kWh	Thermostat temperature	-	55	°C
Standby Heat Loss	P_{stby}	7.31	kWh /day	Reference hot water temperature	θ'_{WH}	55.33	°C
Storage volume	V_m	268.1	L	Volume of mixed water at 40°C	V_{40}	389	L
Test data as per EN 16147:2017							
Contact information	IMMERGAS S.p.A via Cisa Ligure n.95 - 42041 Brescello (RE) Italy						