



# MAMY GEO

*Geothermal reversible heat pump  
with standard pumps*



- **High-efficiency heat pump**
- **Compact machine**
- **DHW production system**
- **Complete with circulation pumps**
- **Easy installation**

Mamy GEO is a compact heat pump able to provide the buildings air conditioning and, contemporary, the tap water heating.

According to the demands, Mamy GEO can be used to heat the water stored into the tap water vessel or to heat the buffer tank which can be used as an "heating lung" to supply high temperature heating elements and to provide the domestic hot water.

Mamy GEO is equipped with the proved "Genius control system" developed and patented by COM40. Genius is the brain of the system which automatically manages the plumbing demands. The user can choose between the following operation modes:

- rooms heating and domestic hot water - winter mode
- rooms cooling and domestic hot water - summer mode
- domestic hot water only - medium seasons mode

The heat pump Mamy GEO employ natural energies as the water or the ground source for the geothermic version.

## **Geothermic model**

These units are studied for exploiting the ground source by means of vertical or horizontal heat exchanger and for transferring the energy by means of water.

They could work also with outdoor temperature extremely low, warranting very good output too.

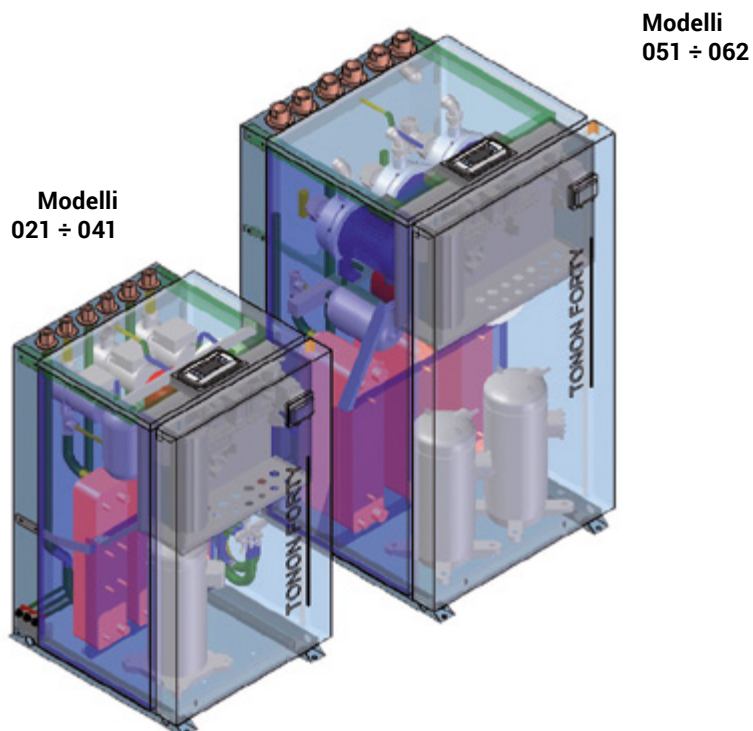
Mamy GEO STD: geothermycal version standar pump

Mamy GEO HP1: geothermycal version with high pressure external pump

Mamy GEO HP2: geothermycal version with high pressure external pump and user plant pump

# Accessories

Refrigerants gauges
Top remote control
Anti-vibration mount feet
Integrated anti-legionella kit (2/3 kW)
D.h.w. pump - heat exch. kit (type 11/21/36)
Amb. temp. Sensor (DYNAMIC SET POINT)
Kit for boiler control
Solar control kit
Free-cooling kit
Multistep control kit
Crankcase heater (INCLUDED)



MAMY GEO		021 C-M	026C-M	031 C-M	041 C-T	051 C--T	061 C-T	042 C-T	052 C-T	062 C-T	
	Energetic class	A+	A+	A+	A+	A+	A+	A++	A++	A++	
	Seasonal efficiency $\eta_{sh}$ (3)	125	126	128	141	138	148	167	164	171	
	SCOP	3,33	3,36	3,39	3,73	3,66	3,89	4,37	4,3	4,47	
B0/W35	Heating capacity	kW	4,6	5,9	8,8	11,2	14,1	17,3	22,4	28,3	33,8
	External source power	kW	3,5	4,5	6,7	8,7	10,9	13,6	17,4	21,9	27,2
	Total power input (1)	kW	1,41	1,75	2,56	3,04	3,79	4,30	6,18	7,66	8,69
	COP (EN 14511-2013)		3,9	4,0	4,1	4,3	4,3	4,6	4,3	4,2	4,2
B0/W45	Heating capacity	kW	4,5	5,8	8,1	10,6	13,5	16,3	21,3	27,0	32,0
	External source power	kW	3,0	3,9	5,5	7,5	9,4	11,5	14,9	18,8	22,6
	Total power input (1)	kW	1,75	2,18	3,17	3,75	4,74	5,41	7,60	9,57	10,82
	COP (EN 14511-2013)		2,9	3,0	2,9	3,2	3,2	3,3	3,1	3,1	3,2
B30/W7	Cooling capacity	kW	4,7	6,1	8,7	11,5	14,4	17,7	23,1	28,9	34,9
	External source power	kW	6,0	7,7	11,0	14,3	18,0	21,9	28,6	36,1	43,8
	Total power input (1)	kW	1,53	1,90	2,77	3,33	4,20	4,81	6,74	8,49	9,70
	EER (EN 14511-2013)		3,6	3,6	3,6	3,9	3,8	4,1	3,9	3,8	3,9
B30/W18	Cooling capacity	kW	6,6	8,5	12,2	16,5	20,4	24,9	33,0	40,8	49,7
	External source power	kW	7,8	10,1	14,4	19,3	24,1	29,2	38,6	48,2	58,3
	Total power input (1)	kW	1,51	1,87	2,73	3,35	4,28	4,93	6,79	8,64	9,95
	EER (EN 14511-2013)		5,7	5,7	5,7	6,0	5,6	5,8	5,9	5,3	5,3
Scroll Compressors	n°	1	1	1	1	1	1	2	2	2	
Refrigerant Circuits	n°	1	1	1	1	1	1	1	1	1	
Capacity steps	n°	1	1	1	1	1	1	2	2	2	
Supply voltage	V/Ph/Hz	230/1/50				400/3/50					
Sound power Lw (2)	dB(A)	62,4	62,4	62,4	62,4	62,4	62,4	65,4	65,4	65,4	
Sound pressure Lp (2)	dB(A)	51,4	51,4	51,4	51,4	51,4	51,4	54,4	54,4	54,4	
Refrigerant		R 407C									
SIZES AND WEIGHT											
Length	mm	602	602	602	602	602	602	750	750	750	
Depth	mm	680	680	680	680	680	680	795	795	795	
Height	mm	1030	1030	1030	1030	1030	1030	1360	1360	1360	
Weight	Kg	128	131	160	159	201	203	255	255	264	
Water flow user plant (B30/W7)	l/s	0,2	0,3	0,4	0,6	0,7	0,8	1,1	1,4	1,7	
Mass flow external source (B30/W7)	l/s	0,3	0,4	0,5	0,7	0,9	1,0	1,4	1,7	2,1	
HYDRONIC KIT STANDARD											
User plant pump	n°	1	1	1	1	1	1	1	1	1	
Available externe pressure (B30/W7)	kPa	66	62	79	74	71	63	108	94	80	
Power input	kW	0,07	0,07	0,14	0,14	0,14	0,14	0,31	0,31	0,31	
Current input	A	0,6	0,6	1,3	1,3	1,3	1,3	1,4	1,4	1,4	
Ground source pump	n°	1	1	1	1	1	1	1	1	1	
Available externe pressure (B30/W7)	kPa	62	57	76	70	60	55	90	62	40	
Power input	kW	0,07	0,07	0,14	0,14	0,14	0,14	0,31	0,31	0,31	
Current input	A	0,6	0,6	1,3	1,3	1,3	1,3	1,4	1,4	1,4	
Domestic water source pump	n°	1	1	1	1	1	1	1	1	1	
Available externe pressure (B30/W7)	kPa	64	60	77	71	68	61	103	90	75	
Power input	kW	0,07	0,07	0,14	0,14	0,14	0,14	0,31	0,31	0,31	
Current input	A	0,6	0,6	1,3	1,3	1,3	1,3	1,4	1,4	1,4	
HIGH PREVALENCE PUMPS (optional_HP version: user plant only / HP version: user plant + geothermic side)											
User plant pump	n°	-	-	-	-	1	1	1	1	1	
Available externe pressure (B30/W7)	kPa	-	-	-	-	139	130	170	161	146	
Power input	kW	-	-	-	-	0,6	0,6	0,91	0,91	0,91	
Current input	A	-	-	-	-	2,7	2,7	4,3	4,3	4,3	
Ground source pump	n°	-	-	-	-	1	1	1	1	1	
Available externe pressure (B30/W7)	kPa	-	-	-	-	120	109	154	135	115	
Power input	kW	-	-	-	-	0,6	0,6	0,91	0,91	0,91	
Current input	A	-	-	-	-	2,7	2,7	4,3	4,3	4,3	

B0/W35\_Plant exchanger water (in/out): 30/35 °C - External source water temperature (in/out): 0/-3 °C

B0/W45\_Plant exchanger water (in/out): 40/45 °C - External source water temperature (in/out): 0/-3 °C

B30/W7\_Plant exchanger water (in/out): 12/7 °C - External source water temperature (in/out): 30/35 °C

B30/W18\_Plant exchanger water (in/out): 23/18 °C - External source water temperature (in/out): 30/35 °C

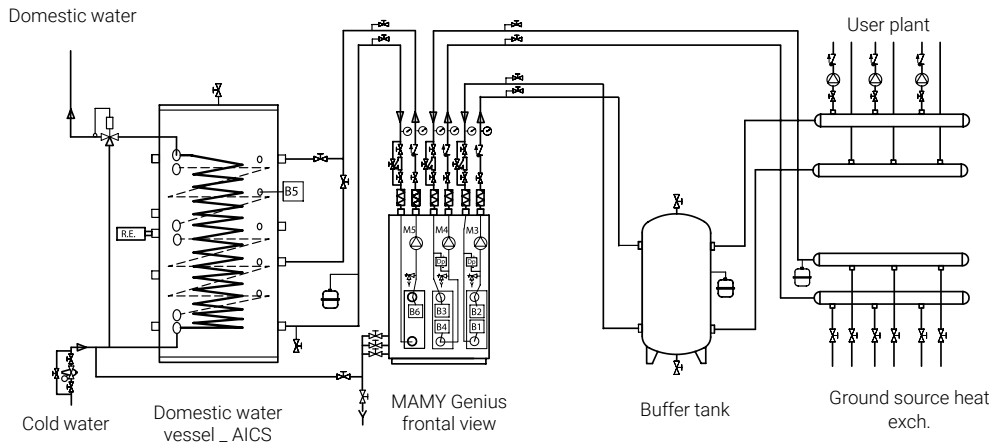
(1) Total power input incl. user plant water pump, geothermal side pump and DHW side pump

(2) Noise power according to ISO3744 regulation / Average noise pressure at 1 m in a free field on a reflective surface

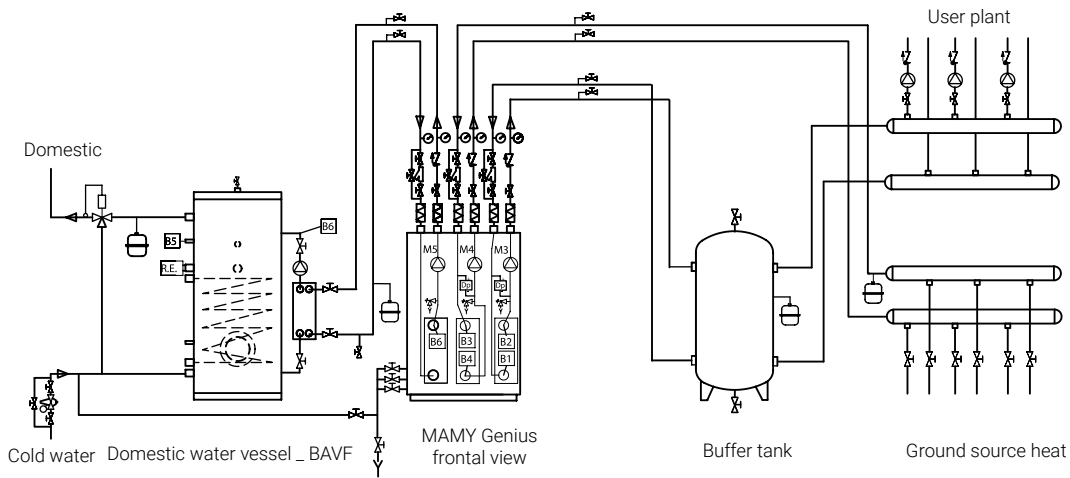
(3) In compliance with EU 811/2013 Regulation\_ "Average" climate conditions

# System configuration

## MAMY GEO + AICS



## MAMY GEO + BAVF



## MAMY GEO + BAVY

