

MAX split wall-hung hybrid systems BOX split floor-standing hybrid systems

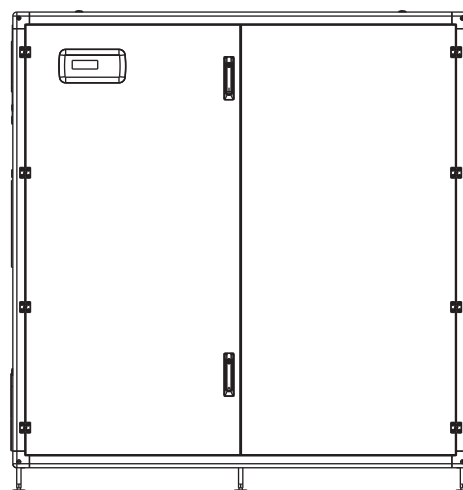
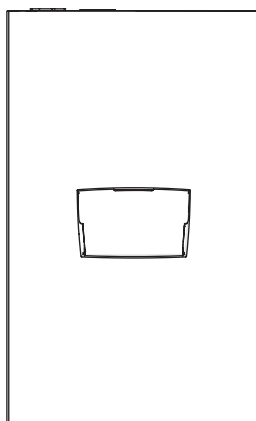
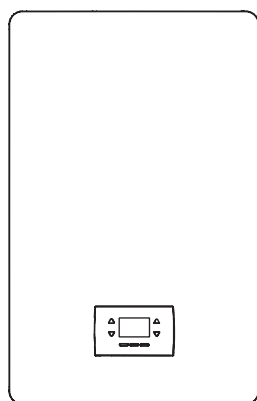
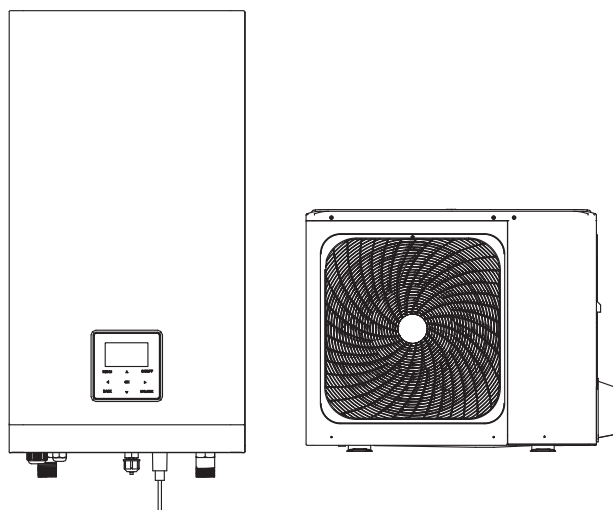


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MAX split wall-hung hybrid system

POWER EVO-X in combination with EXCLUSIVE AGILE SERIES



POWER MAX in combination with EXCLUSIVE AGILE SERIES



BOX split floor-standing hybrid system

POWER MAX BOX in combination with EXCLUSIVE AGILE 018T-030T



Exclusive Agile

Product Description

Exclusive Agile is a split heat pump system with an indoor wall unit for heating, cooling and hot water production if paired with an external storage tank. The system is made up of an outdoor unit with R32 gas connected via refrigerant piping to the indoor wall-mounted unit.

The compact, quiet outdoor unit includes a Twin Rotary DC inverter compressor, an electronic expansion valve, fans with brushless motor, and a finned coil optimised for heat pump operation even at outdoor air temperatures down to -25°C.

The indoor unit, only 270 mm deep, is available in two versions: without a backup heating element or with a backup heating element.

In single-phase units, the backup heating element, where present, is 3 kW power, while in three-phase units, where present, it is 9 kW.

The system control panel, on board the indoor unit, features a large backlit display with user-friendly icons and a multilanguage menu.

Exclusive Agile heat pumps are equipped with Silent Mode on two levels, which reduces the sound pressure to 41 db(A) (sound pressure of 10 kW size, in Silent Mode 2).

Technical data

DESCRIPTION			U.M.	EXCLUSIVE AGILE					
				10M	12M	14M	16M	12T	14T
COMBINATION									
Indoor unit			AGILE WH M	AGILE WH L	AGILE WH L	AGILE WH L	AGILE WH L	AGILE WH L	AGILE WH L
Outdoor unit			HP EXTERNAL UNIT 010	HP EXTERNAL UNIT 012	HP EXTERNAL UNIT 014	HP EXTERNAL UNIT 016	HP EXTERNAL UNIT 012T	HP EXTERNAL UNIT 014T	HP EXTERNAL UNIT 016T
PERFORMANCE DATA IN HEATING									
Performance in heating (A7°C; W35°C)									
Nominal capacity		kW	10,00	12,10	14,50	16,00	12,10	14,50	16,00
Power input		kW	2,00	2,44	3,09	3,56	2,44	3,09	3,56
COP			5,00	4,95	4,70	4,50	4,95	4,70	4,50
SCOP			5,19	4,81	4,72	4,62	4,81	4,72	4,62
Seasonal energy efficiency		%	205	189	186	182	189	186	182
Energy class	(*)		A+++	A+++	A+++	A+++	A+++	A+++	A+++
Performance in heating (A7°C; W45°C)									
Nominal capacity		kW	10,00	12,30	14,20	16,00	12,30	14,20	16,00
Power input		kW	2,63	3,24	3,89	4,44	3,24	3,89	4,44
COP			3,80	3,80	3,65	3,60	3,80	3,65	3,60
Performance in heating (A7°C; W55°C)									
Nominal capacity		kW	9,50	12,00	13,80	16,00	12,00	13,80	16,00
Power input		kW	3,06	3,87	4,60	5,52	3,87	4,60	5,52
COP			3,10	3,10	3,00	2,90	3,10	3,00	2,90
SCOP			3,47	3,45	3,47	3,41	3,45	3,47	3,41
Seasonal energy efficiency		%	137	135	136	133	135	136	133
Energy class	(*)		A++	A++	A++	A++	A++	A++	A++
PERFORMANCE DATA IN COOLING									
Performance in cooling (A35°C; W7°C)									
Nominal capacity		kW	8,20	11,60	12,70	14,00	11,60	12,70	14,00
Power input		kW	2,48	4,22	4,98	5,71	4,22	4,98	5,71
EER			3,30	2,75	2,55	2,45	2,75	2,55	2,45
SEER			5,98	4,89	4,86	4,69	4,89	4,86	4,69
Seasonal energy efficiency		%	235	192	191	184	192	191	184
Performance in cooling (A35°C; W18°C)									
Nominal capacity		kW	10,00	12,00	13,50	14,20	12,00	13,50	14,20
Power input		kW	2.08	3.00	3.74	3.93	3.00	3.74	3.93

BOX split floor-standing hybrid system

DESCRIPTION		U.M.	EXCLUSIVE AGILE						
			10M	12M	14M	16M	12T	14T	16T
EER			4,80	4,00	3,61	3,61	4,00	3,61	3,61
ELECTRICAL SPECIFICATIONS									
Electric power supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50
Total maximum input power	(1)	kW	3,60	5,40	5,70	6,10	5,40	5,70	6,10
Total maximum input current	(2)	A	17,00	25,00	26,00	27,00	10,00	11,00	12,00
COMPRESSOR									
Compressor		Type / brand	Twin Rotary/Mitsubishi						
Adjustment		Type	Inverter modulating						
Minimum capacity control		%	38	46	41	40	46	41	40
Refrigerant		Type	R32	R32	R32	R32	R32	R32	R32
GWP		CO ₂ equiv. In t/kg	675	675	675	675	675	675	675
Refrigerant load		kg	1,65	1,84	1,84	1,84	1,84	1,84	1,84
Control box load		CO ₂ equiv. In t	1,11	1,24	1,24	1,24	1,24	1,24	1,24
Number of circuits		n.	1	1	1	1	1	1	1
Hermetically sealed control box (EU reg. 517_2014)		yes/no	no	no	no	no	no	no	no
FAN									
Fan		Type	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Quantity		n.	1	1	1	1	1	1	1
Maximum air flow rate		m³/h	4030	4060	4060	4650	4060	4060	4650
HEAT EXCHANGER (SOURCE SIDE)									
Heat exchanger (source side)		Type	Copper pipes, fins in hydrophilic aluminium with anti-corrosion treatment						
HYDRONIC MODULE									
Circulation pump		Type / adjustment	Variable speed centrifuge						
Nominal flow rate		m³/h	1,72	2,09	2,50	2,76	2,09	2,50	2,76
Available head at nominal flow rate		Kpa	69	64	51	41	64	51	41
Circulator maximum power input		W	90	90	90	90	90	90	90
Circulator minimum power input		W	5	5	5	5	5	5	5
Safety valve calibration pressure		bar	3	3	3	3	3	3	3
Expansion vessel volume		l	8	8	8	8	8	8	8
HEAT EXCHANGER (SYSTEM SIDE)									
Heat exchanger (system side)		Type	With plates						
Water content		l	5	5	5	5	5	5	5
SOUND DATA									
Outdoor unit sound power level	(3)	dB(A)	60	64	65	68	64	65	68
Sound pressure at 1m outdoor unit	(4)	dB(A)	49	50	51	54	50	51	55
Indoor unit sound power level	(3)	dB(A)	42	43	43	43	43	43	43
Sound pressure at 1m indoor unit	(4)	dB(A)	30	32	32	32	32	32	32
WEIGHT									
Net weight outdoor unit		kg	75	111	111	111	126	126	126
Net weight indoor unit		kg	37	51	51	51	51	51	51

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

(1) Power input from outdoor unit at max operating conditions and nominal power supply voltage (for total system input add the power of the indoor units, with or without backup heating elements, stated in the electrical wiring section).

(2) Maximum unit operating current with the nominal power supply voltage.

(3) Sound emission values declared, in accordance with standard EN 12102-1.

(4) Measured in a semi-anechoic chamber, at a distance of 1m from the front of the unit and at a height from the floor equal to (1+H)/2, where H is the height of the unit expressed in metres (in accordance with standard EN 12102-1).

(*) The range of energy efficiency class of this products category is between D and A+++

BOX split floor-standing hybrid system

ERP technical data

DESCRIPTION	U.M.	10M	12M	14M	16M	12T	14T	16T
COMBINATION								
Indoor unit		AGILE WH M	AGILE WH L	AGILE WH L	AGILE WH L	AGILE WH L	AGILE WH L	AGILE WH L
Outdoor unit		HP EXTERNAL UNIT 010	HP EXTERNAL UNIT 012	HP EXTERNAL UNIT 014	HP EXTERNAL UNIT 016	HP EXTERNAL UNIT 012T	HP EXTERNAL UNIT 014T	HP EXTERNAL UNIT 016T
Temperate zone - Low temperature (30/35°C) EU reg. 811_2013								
Seasonal energy efficiency	%	205	189	186	182	189	186	182
SCOP		5,19	4,81	4,72	4,62	4,81	4,72	4,62
Prated	kW	9,17	12,00	13,73	15,21	12,00	13,73	15,21
Annual energy consumption	kWh/year	3644	5152	6012	6804	5153	6013	6805
Energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++
Outdoor unit sound power level	dB(A)	60	64	65	68	64	65	68
Indoor unit sound power level	dB(A)	42	43	43	43	43	43	43
Temperate zone - Medium temperature (47/55°C) EU reg. 811_2013								
Seasonal energy efficiency	%	137	135	136	133	135	136	133
SCOP		3,47	3,45	3,47	3,41	3,45	3,47	3,41
Prated	kW	7,67	11,58	12,08	13,02	11,58	12,08	13,02
Annual energy consumption	kWh/year	4539	6927	7202	7895	6928	7203	7896
Energy class		A++	A++	A++	A++	A++	A++	A++

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

(*) The range of energy efficiency class of this products category is between D and A+++

BOX split floor-standing hybrid system

Performance values in accordance with standards EN 14511:2018 and EN 14825:2016

HP EXTERNAL UNIT 010M - AGILE WH M

HEATING

Performance with full load

Delivery temperature	35°C		45°C		55°C	
Outdoor temperature	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP
-7	8,00	3,05	7,35	2,55	6,85	2,00
2	8,20	4,00	7,85	3,20	8,10	2,56
7	10,00	5,00	10,00	3,80	9,50	3,10
12	9,03	5,77	9,11	4,06	8,50	3,41
15	9,13	6,22	9,22	4,38	8,60	3,67
20	9,58	7,14	9,46	5,08	8,73	4,05
35	8,59	9,01	9,81	6,84	8,63	5,29

Performance with part load

Tbival (-7°C)	A	B	C	D	-	-
Outdoor temperature (°C)	-7	2	7	12	-	-
PLR - Climate load factor	0,88	0,54	0,35	0,15	-	-
DC - Output with full load	8,00	8,20	10,00	9,03	-	-
COP with full load	3,05	4,00	5,00	5,77	-	-
COP with part load	3,16	4,32	5,19	4,55	-	-
CR - Load factor	1,00	0,60	0,32	0,15	-	-
f COP - Corrective factor	1,04	1,08	1,04	0,79	-	-

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

The performance values with a part load refer to a water delivery temperature of 35°C.

COOLING

EER	Load factor	Outdoor temperature (°C)	EER	Nominal capacity (kW)
EER1	100%	35	3,30	8,20
EER2	75%	30	4,47	6,15
EER3	50%	25	7,02	4,10
EER4	25%	20	9,54	2,05

Performance in accordance with UNI EN 14825.

BOX split floor-standing hybrid system

HP EXTERNAL UNIT 012M - AGILE WH L						
HEATING						
Performance with full load						
Delivery temperature	35°C		45°C		55°C	
Outdoor temperature	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP
-7	10,00	3,00	10,20	2,40	9,80	2,05
2	9,20	3,90	10,60	3,00	11,30	2,50
7	12,10	4,95	12,30	3,80	12,00	3,10
12	10,98	5,75	11,10	4,26	9,53	3,17
15	11,00	5,97	11,20	4,52	9,12	3,20
20	10,77	7,18	11,19	5,16	9,00	3,61
35	11,55	8,78	11,45	6,17	10,00	4,86
Performance with part load						
Tbival (-7°C)	A	B	C	D	-	-
Outdoor temperature (°C)	-7	2	7	12	-	-
PLR - Climate load factor	0,88	0,54	0,35	0,15	-	-
DC - Output with full load	10,00	9,20	12,10	10,98	-	-
COP with full load	3,00	3,90	4,95	5,75	-	-
COP with part load	2,82	4,01	4,85	4,14	-	-
CR - Load factor	1,00	0,70	0,35	0,16	-	-
f COP - Corrective factor	1,00	1,03	0,98	0,72	-	-

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

The performance values with a part load refer to a water delivery temperature of 35°C.

COOLING				
EER	Load factor	Outdoor temperature (°C)	EER	Nominal capacity (kW)
EER1	100%	35	2,75	11,60
EER2	75%	30	3,93	8,70
EER3	50%	25	5,73	5,80
EER4	25%	20	6,75	2,90

Performance in accordance with UNI EN 14825.

BOX split floor-standing hybrid system

HP EXTERNAL UNIT 014M - AGILE WH L						
HEATING						
Performance with full load						
Delivery temperature	35°C		45°C		55°C	
Outdoor temperature	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP
-7	12,00	2,85	11,70	2,35	11,00	2,05
2	11,00	3,60	11,50	2,85	12,40	2,45
7	14,50	4,70	14,20	3,65	13,80	3,00
12	11,50	5,46	11,69	4,12	10,28	3,32
15	11,62	5,67	11,89	4,25	9,84	3,41
20	11,09	6,27	11,47	4,87	9,53	3,74
35	11,77	8,63	11,99	6,10	10,09	4,93
Performance with part load						
Tbival (-7°C)	A	B	C	D	-	-
Outdoor temperature (°C)	-7	2	7	12	-	-
PLR - Climate load factor	0,88	0,54	0,35	0,15	-	-
DC - Output with full load	12,00	11,00	14,50	11,50	-	-
COP with full load	2,85	3,60	4,70	5,46	-	-
COP with part load	2,73	3,90	4,90	4,26	-	-
CR - Load factor	1,00	0,67	0,33	0,18	-	-
f COP - Corrective factor	1,00	1,08	1,04	0,78	-	-

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

The performance values with a part load refer to a water delivery temperature of 35°C.

COOLING				
EER	Load factor	Outdoor temperature (°C)	EER	Nominal capacity (kW)
EER1	100%	35	2,55	12,70
EER2	75%	30	3,85	9,53
EER3	50%	25	5,80	6,35
EER4	25%	20	6,74	3,18

Performance in accordance with UNI EN 14825.

BOX split floor-standing hybrid system

HP EXTERNAL UNIT 016M - AGILE WH L						
HEATING						
Performance with full load						
Delivery temperature	35°C		45°C		55°C	
Outdoor temperature	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP
-7	13,10	2,70	12,80	2,25	12,50	2,00
2	13,00	3,45	12,70	2,85	13,30	2,40
7	16,00	4,50	16,00	3,60	16,00	2,90
12	14,03	5,58	13,76	4,22	12,69	3,44
15	14,48	5,97	14,21	4,46	13,22	3,61
20	12,95	6,88	12,22	4,71	11,19	3,68
35	12,80	9,06	12,48	6,02	10,38	4,57
Performance with part load						
Tbival (-7°C)	A	B	C	D	-	-
Outdoor temperature (°C)	-7	2	7	12	-	-
PLR - Climate load factor	0,88	0,54	0,35	0,15	-	-
DC - Output with full load	13,10	13,00	16,00	14,03	-	-
COP with full load	2,70	3,45	4,50	5,58	-	-
COP with part load	2,66	3,80	4,81	4,32	-	-
CR - Load factor	1,00	0,63	0,33	0,16	-	-
f COP - Corrective factor	1,00	1,10	1,07	0,77	-	-

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

The performance values with a part load refer to a water delivery temperature of 35°C.

COOLING				
EER	Load factor	Outdoor temperature (°C)	EER	Nominal capacity (kW)
EER1	100%	35	2,45	14,00
EER2	75%	30	3,63	10,50
EER3	50%	25	5,27	7,00
EER4	25%	20	7,29	3,50

Performance in accordance with UNI EN 14825.

BOX split floor-standing hybrid system

HP EXTERNAL UNIT 012T - AGILE WH L						
HEATING						
Performance with full load						
Delivery temperature	35°C		45°C		55°C	
Outdoor temperature	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP
-7	10,00	3,00	10,20	2,40	9,80	2,05
2	9,20	3,90	10,60	3,00	11,30	2,50
7	12,10	4,95	12,30	3,80	12,00	3,10
12	10,98	5,75	11,10	4,26	9,53	3,17
15	11,00	5,97	11,20	4,52	9,12	3,20
20	10,77	7,18	11,19	5,16	9,00	3,61
35	11,55	8,78	11,45	6,17	10,00	4,86
Performance with part load						
Tbival (-7°C)	A	B	C	D	-	-
Outdoor temperature (°C)	-7	2	7	12	-	-
PLR - Climate load factor	0,88	0,54	0,35	0,15	-	-
DC - Output with full load	10,00	9,20	12,10	10,98	-	-
COP with full load	3,00	3,90	4,95	5,75	-	-
COP with part load	2,82	4,01	4,85	4,14	-	-
CR - Load factor	1,00	0,70	0,35	0,16	-	-
f COP - Corrective factor	1,00	1,03	0,98	0,72	-	-

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

The performance values with a part load refer to a water delivery temperature of 35°C.

COOLING				
EER	Load factor	Outdoor temperature (°C)	EER	Nominal capacity (kW)
EER1	100%	35	2,75	11,60
EER2	75%	30	3,93	8,70
EER3	50%	25	5,73	5,80
EER4	25%	20	6,75	2,90

Performance in accordance with UNI EN 14825.

BOX split floor-standing hybrid system

HP EXTERNAL UNIT 014T - AGILE WH L

HEATING

Performance with full load

Delivery temperature	35°C		45°C		55°C	
Outdoor temperature	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP
-7	12,00	2,85	11,70	2,35	11,00	2,05
2	11,00	3,60	11,50	2,85	12,40	2,45
7	14,50	4,70	14,20	3,65	13,80	3,00
12	11,50	5,46	11,69	4,12	10,28	3,32
15	11,62	5,67	11,89	4,25	9,84	3,41
20	11,09	6,27	11,47	4,87	9,53	3,74
35	11,77	8,63	11,99	6,10	10,09	4,93

Performance with part load

Tbival (-7°C)	A	B	C	D	-	-
Outdoor temperature (°C)	-7	2	7	12	-	-
PLR - Climate load factor	0,88	0,54	0,35	0,15	-	-
DC - Output with full load	12,00	11,00	14,50	11,50	-	-
COP with full load	2,85	3,60	4,70	5,46	-	-
COP with part load	2,73	3,90	4,90	4,26	-	-
CR - Load factor	1,00	0,67	0,33	0,18	-	-
f COP - Corrective factor	1,00	1,08	1,04	0,78	-	-

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

The performance values with a part load refer to a water delivery temperature of 35°C.

COOLING

EER	Load factor	Outdoor temperature (°C)	EER	Nominal capacity (kW)
EER1	100%	35	2,55	12,70
EER2	75%	30	3,85	9,53
EER3	50%	25	5,80	6,35
EER4	25%	20	6,74	3,18

Performance in accordance with UNI EN 14825.

BOX split floor-standing hybrid system

HP EXTERNAL UNIT 016T - AGILE WH L

HEATING

Performance with full load

Delivery temperature	35°C		45°C		55°C	
Outdoor temperature	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP	Nominal capacity (kW)	COP
-7	13,10	2,70	12,80	2,25	12,50	2,00
2	13,00	3,45	12,70	2,85	13,30	2,40
7	16,00	4,50	16,00	3,60	16,00	2,90
12	14,03	5,58	13,76	4,22	12,69	3,44
15	14,48	5,97	14,21	4,46	13,22	3,61
20	12,95	6,88	12,22	4,71	11,19	3,68
35	12,80	9,06	12,48	6,02	10,38	4,57

Performance with part load

Tbival (-7°C)	A	B	C	D	-	-
Outdoor temperature (°C)	-7	2	7	12	-	-
PLR - Climate load factor	0,88	0,54	0,35	0,15	-	-
DC - Output with full load	13,10	13,00	16,00	14,03	-	-
COP with full load	2,70	3,45	4,50	5,58	-	-
COP with part load	2,66	3,80	4,81	4,32	-	-
CR - Load factor	1,00	0,63	0,33	0,16	-	-
f COP - Corrective factor	1,00	1,10	1,07	0,77	-	-

The performance values comply with Standards UNI EN 14511 and UNI EN 14825.

The performance values with a part load refer to a water delivery temperature of 35°C.

COOLING

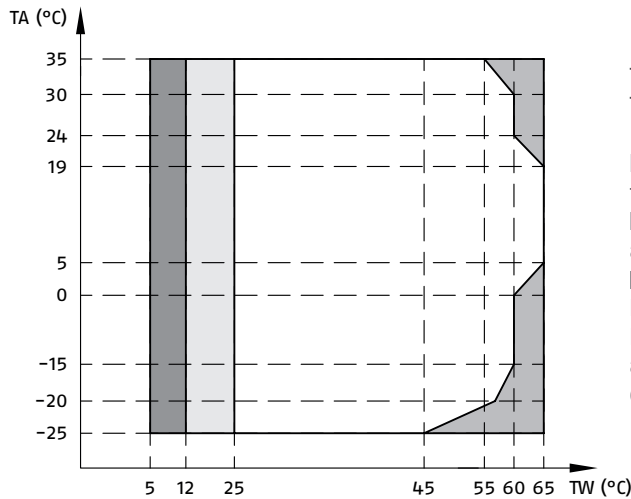
EER	Load factor	Outdoor temperature (°C)	EER	Nominal capacity (kW)
EER1	100%	35	2,45	14,00
EER2	75%	30	3,63	10,50
EER3	50%	25	5,27	7,00
EER4	25%	20	7,29	3,50

Performance in accordance with UNI EN 14825.

BOX split floor-standing hybrid system

Operating limits

Heating mode



TA - Outdoor air temperature.
TW - Water delivery temperature.

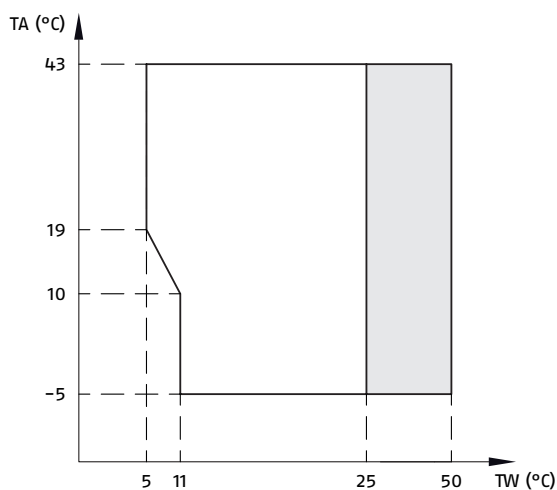
Operating range with heat pump, with possible limits and protection.

The heat pump switches off and only the external heat source is active.

If the external heat source setting is enabled, only the external heat source activates.

If the external heat source setting is disabled, only the heat pump is active. Limitations and protection may arise while the heat pump is operating.

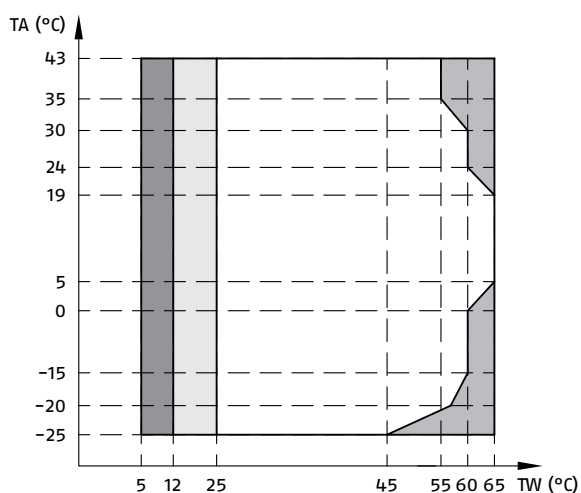
Cooling mode



TA - Outdoor air temperature.
TW - Water delivery temperature.

Operating range with heat pump, with possible limits and protection..

DHW mode



TA - Outdoor air temperature.
TW - Water delivery temperature.

Operating range with heat pump, with possible limits and protection.

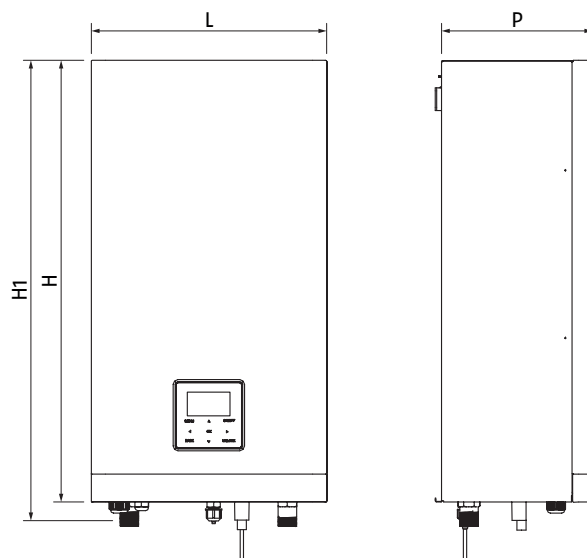
The heat pump switches off and only the external heat source is active.

If the external heat source setting is enabled, only the external heat source activates.

If the external heat source setting is disabled, only the heat pump is active. Limitations and protection may arise while the heat pump is operating.

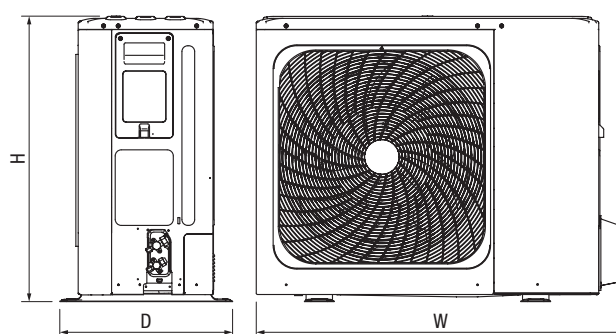
BOX split floor-standing hybrid system

Overall dimensions

Indoor unit dimensions (1)

Models	U.M.	AGILE WH M (10 kW)	AGILE WH L (12-16 kW)
Width (W)	mm	421	421
Height (H)	mm	790	790
Height (H1)	mm	824	824
Depth (D)	mm	270	270
Net weight	kg	37	39
Gross weight	kg	43	45

(1) Dimensions valid for versions with or without backup heating element.

Outdoor unit dimensions

Models	U.M.	010	012	014	016	012T	014T	016T
Width (W)	mm	1118	1118	1118	1118	1118	1118	1118
Height (H)	mm	865	865	865	865	865	865	865
Depth (D)	mm	523	523	523	523	523	523	523
Net weight	kg	75	97	97	97	112	112	112
Gross weight	kg	89	110,5	110,5	110,5	125,5	125,5	125,5

POWER EVO-X

Product Description

POWER EVO-X is the modular wall-mounted condensing system that makes compactness its strong point. The horizontally developed stainless steel primary exchanger, with front accessibility to the combustion chamber, ensures high performance in terms of efficiency and reliability over time.

The range consists of 4 models in heating-only version, with thermal modules from 34.9 up to 70 kW.

POWER EVO-X can be installed individually indoors or in a partially protected location, while up to 4 modules can be installed internally in cascade, either in a Linear or Back-to-Back configuration.

Battery system management is done by means of the new simple and intuitive external system controller, which is also capable of managing, parameterizing and displaying up to 4 modules in cascade as well as managing up to 6 additional independent zones.

- Designed to operate with mixtures of natural gas and hydrogen, up to a maximum of 20%.
- Modulation ratio 1:8 in single installation, up to 1:32 in battery installation.
- Modulating circulator with high head and low consumption.
- Maximum operating pressure 5 bar.
- Ease of installation.
- Wide range of accessories to complete single and battery installation in both linear and back-to-back configurations.

Technical data

DESCRIPTION		U.M.	POWER EVO-X							
			50 DEP		50		65		80	
Gas type			G20	G31	G20	G31	G20	G31	G20	G31
Gas category			II 2H3P appliance		II 2H3P appliance		II 2H3P appliance		II 2H3P appliance	
Flue systems installation type			B23P; B53P; C13,C13x; C33,C33x; C43,C43x; C53,C53x; C63,C63x; C83,C83x; C93,C93x							
HEATING										
Nominal heat flow rate (Hi)		kW	34,90		45,00		55,00		70,00	
Rated heat output (80÷60°C)		kW	34,00		43,88		53,60		68,22	
Rated heat output (50÷30°C)		kW	37,31		47,30		58,25		74,19	
Reduced heat flow rate (Hi)		kW	5,20	-	5,20	-	8,20	-	8,20	-
Reduced heat output (80÷60°C)		kW	4,98	-	4,98	-	7,87	-	7,87	-
Reduced heat output (50÷30°C)		kW	5,57	-	5,57	-	8,78	-	8,78	-
DOMESTIC WATER										
Nominal heat flow rate (Hi)		kW	34,90		45,00		55,00		70,00	
Nominal heat output	(*)	kW	34,90		45,00		55,00		70,00	
Reduced heat flow rate (Hi)		kW	5,20	-	5,20	-	8,20	-	8,20	-
Reduced heat output	(*)	kW	5,20	-	5,20	-	8,20	-	8,20	-
Modulating ratio			1:7		1:8		1:7		1:8	
EFFICIENCY										
Useful efficiency P max (80÷60°C)		%	97,4		97,5		97,5		97,5	
Useful efficiency P min (80÷60°C)		%	95,8		95,8		96,0		96,0	
Useful efficiency Pn max (50÷30°C)		%	106,9		105,1		105,9		106,0	
Useful efficiency Pn min (50÷30°C)		%	107,2		107,2		107,0		107,0	
Useful efficiency 30 % (return 30°C)		%	108,2		107,9		107,6		107,5	
Chimney losses with burner on (Pn max)		%	2,38		2,35		2,41		2,44	
Chimney losses with burner off		%	0,06		0,05		0,04		0,03	
Shell losses with burner on (Pn max)		%	0,22		0,15		0,09		0,06	
FLUE GAS SYSTEMS										
NOx class - UNI EN 15502			6		6		6		6	
Residual head of concentric tubes 0,85 m Ø60-100 mm		Pa	60		60		ND		ND	
Residual headroom separated pipes 0,5 m Ø80 mm		Pa	160		192		172		197	

BOX split floor-standing hybrid system

DESCRIPTION		U.M.	POWER EVO-X							
			50 DEP		50		65		80	
Gas type			G20	G31	G20	G31	G20	G31	G20	G31
Residual boiler head without pipes and without flange		Pa	166		198		180		200	
ELECTRICAL CHARACTERISTICS										
Max heating electric power		W	158		175		201		284	
Burner electrical power P max		W	60		77		113		196	
Electric power circulator max		W	98		98		88		88	
Electrical power circulator min		W	3		3		5		5	
Power supply		V - Hz	230-50		230-50		230-50		230-50	
Electrical protection level		IP	X5D		X5D		X5D		X5D	
HEATING OPERATION										
Maximum pressure		bar	5		5		5		5	
Minimum pressure for standard operation		bar	0,8		0,8		0,8		0,8	
Maximum temperature:		°C	90		90		90		90	
H2O heating temperature selection range.		°C	20/45 - 20/90		20/45 - 20/90		20/45 - 20/90		20/45 - 20/90	
Pump: max head available to the system		mbar	820		820		430		430	
at flow rate of		l/h	1000		1000		2500		2500	
AIR AND FLUES FLOW RATES										
Heating										
Air flow rate		Nm³/h	42,4	43,3	54,7	55,8	66,8	68,2	85,0	86,9
Flues flow rate		Nm³/h	45,9	46,0	59,2	59,3	72,3	72,5	92,0	92,3
Flue gas mass flow rate (max-min)		g / s	15,8-2,4	16,2-2,4	20,4-2,4	20,9-2,4	24,9-3,7	25,5-3,8	31,8-3,7	32,5-3,8
DOMESTIC WATER										
Air flow rate		Nm³/h	42,4	43,3	54,7	55,8	66,8	68,2	85,0	86,9
Flues flow rate		Nm³/h	45,9	46	59,2	59,3	72,3	72,5	92	92,3
Flue gas mass flow rate (max-min)		g / s	15,8-2,4	16,2-2,4	20,4-2,4	20,9-2,4	24,9-3,7	25,5-3,8	31,8-3,7	32,5-3,8
EMISSION VALUES AT MAX AND MIN FLOW RATE WITH G20 GAS (**)										
Maximum										
CO s.a. less than		p.p.m	120	130	150	160	170	170	220	230
CO2		%	9,0	10,0	9,0	10,0	9,0	10,0	9,0	10,0
NOx s.a. less than		p.p.m	50	50	60	60	50	50	60	60
Flues temperature		°C	68	66	71	73	66	70	70	76
Minimum										
CO s.a. less than		p.p.m	30	30	30	30	40	20	40	20
CO2		%	9,0	10,0	9,0	10,0	9,0	10,0	9,0	10,0
NOx s.a. less than		p.p.m	40	45	40	45	40	60	40	60
Flues gas temperature		°C	60	58	60	58	57	58	57	58

(*) Average value among the various operating conditions in DHW.

(**) Verification performed with concentric pipe 60-100 mm-length 0.85 m-water temperature 80-60°C.

Note

With reference to the Delegated Regulation (EU) No. 811/2013, the data represented in the table can be used for the completion of the product data sheet and labeling for room heating appliances, mixed heating appliances, assemblies of room heating appliances, temperature control devices and solar devices:

	CLASS	BONUS
EXTERNAL PROBE	II	2%
REMOTE CONTROL OT+	V	3%
OUTDOOR PROBE + REMOTE CONTROL OT+	VI	4%

BOX split floor-standing hybrid system

ERP regulation technical data table

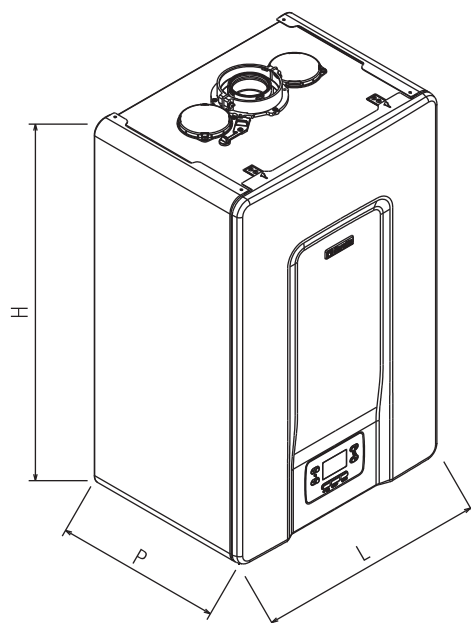
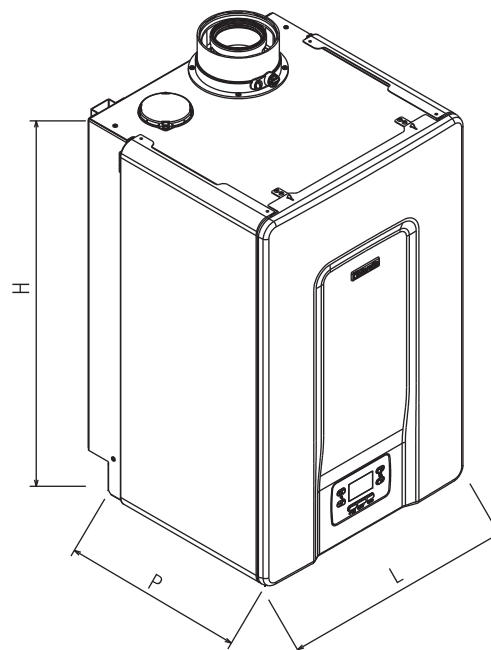
Parameter		Simbol	Unit	POWER EVO-X			
				50 DEP	50	65	80
Seasonal efficiency class in central heating mode		-	-	A	A	A	A
Seasonal efficiency class in water heating		-	-	ND	ND	ND	ND
Useful (rated) heat output		P _{nominal}	kW	34	44	54	68
Seasonal efficiency class in room heating mode		η _s	%	93	92	92	92
Useful heat output P_n							
At useful heat output and at high temperature capacity	(*)	P ₄	kW	34,0	43,9	53,6	68,2
At 30% of useful heat output and at low temperature capacity P ₁ (HHV)	(**)	P ₁	kW	11,3	14,6	17,8	22,6
Efficiency							
At useful heat output and at high temperature capacity	(*)	η ₄	%	87,7	87,8	87,8	87,8
At 30% of useful heat output and at low temperature capacity P ₁ (HHV)	(**)	η ₁	%	97,4	97,2	96,9	96,8
Other parameters							
Thermal losses in Stand-by mode		P _{stby}	W	36,8	34,7	34,5	34,5
Pilot flame energy consumption		P _{ign}	W	-	-	-	-
Yearly energy consumption		Q _{HE}	GJ	105	137	168	214
Noise level, indoor (sound power)		L _{WA}	dB	57	60	57	61
Nitrogen oxide emissions (NO _x)		NO _x	mg/kWh	30	33	41	48
Domestic hot water							
Declared load profile				ND	ND	ND	ND
Energy efficiency class in water heating		η _{wh}	%	ND	ND	ND	ND
Daily electrical energy consumption		Q _{elec}	kWh	ND	ND	ND	ND
Daily fuel consumption		Q _{fuel}	kWh	ND	ND	ND	ND
Annual electrical energy consumption		AEC	kWh	ND	ND	ND	ND
Annual fuel consumption		AFC	GJ	ND	ND	ND	ND

(*) High temperature regime: 60°C return and 80°C boiler flow.

(**) Low temperature regime: for condensing boilers 30°C, for low temperature boilers 37°C, for other heating appliances 50°C return temperature.

BOX split floor-standing hybrid system

Overall dimensions and weights

POWER EVO-X 50 DEP - 50**POWER EVO-X 65 - 80**

DESCRIPTION	U.M.	POWER EVO X			
		50 DEP	50	65	80
L	mm	470	470	470	470
P	mm	350	350	443	443
H	mm	740	740	740	740
Net weight	kg	35	35	53,5	53,5

BOX split floor-standing hybrid system

POWER MAX

Product Description

POWER MAX is Beretta's new proposal as a modular wall-mounted condensing system, capable of the highest level of performance and covering a wide range of applications, with the possibility of indoor or outdoor installation, with open- or sealed-chamber combustion, with single or cascade boilers up to 1120 kW.

The range consists of 6 models with thermal modules from 57 up to 131 kW. Each thermal module is equipped with the innovative heat exchanger with patented geometries, consisting of two concentric stainless steel smooth tubes, having pentagonal cross-section the inside and circular cross-section the outside, respectively, designed to maximize the exchange surface, offer maximum corrosion resistance.

The primary circuit pump with modulating control allows operation with settable constant Δt , reducing system set-up time and maximizing condensation. Basic electronics include climate control, module cascade management, with built-in master/slave functions, automatic summer/winter switching, and the ability to manage a direct zone and a DHW tank.

The electronics also offers the possibility of remote control via 0-10V input or with the Modbus protocol. Included as standard are: boiler drain cock, safety valves, LPG conversion kit and wall bracket. Completing the system are accessories specifically designed for modular and cascade applications, with the possibility of working with different hydraulic management logics, i.e., thermal modules with circulators, 2-way valves or no shut-off. Through special accessories there is also the possibility of managing the distribution of the secondary circuit, up to 16 mixed zones.

Optimal combustion management and high modulation ratios, up to 1:50 for the version with 10 thermal modules, enable high efficiency and low pollutant emissions (Class 6 according to UNI EN 15502).

- Designed to operate with mixtures of natural gas and hydrogen, up to a maximum of 20%.
- Modulation ratio 1:8 in single installation, up to 1:32 in battery installation.
- Modulating circulator with high head and low consumption.
- Maximum operating pressure 5 bar.
- Ease of installation.
- Wide range of accessories to complete single and battery installation in both linear and back-to-back configurations.

Technical data

DESCRIPTION	U.M.	POWER MAX	
		65 P	80 P
Material		STEEL	STEEL
Efficiency class		$> 93 + 2 \log P_n$	$> 93 + 2 \log P_n$
Gas type		NG-LPG	NG-LPG
Test room temperature	°C	20	20
Max. rated heat input at furnace (LCV)	kW	57,0	68,0
Min. rated heat input at furnace (LCV)	kW	14,0	14,0
Max. rated heat output (80÷60°C)	kW	55,7	67,0
Min. rated heat output (80÷60°C)	kW	13,5	13,5
Max. rated heat output (50÷30°C)	kW	61,9	73,9
Min. rated heat output (50÷30°C)	kW	14,9	14,9
Efficiency at max. rated heat output (80÷60°C)	%	98,3	98,1
Efficiency at min. rated heat output (80÷60°C)	%	98,9	98,9
Efficiency at max. rated heat output (50÷30°C)	%	108,6	108,1
Efficiency at min. rated heat output (50÷30°C)	%	109,3	109,3
Useful efficiency at 30%	%	109,2	109,0
Heat loss in standby mode	%	0,1	0,1
Chimney losses with burner on at P.max	%	2,3	2,3
Chimney losses with burner on at P.min	%	0,1	0,1
Blanket losses with burner on with 70°C average temperature	%	0,9	0,9
Blanket losses with burner off with 70°C average temperature	%	0,9	0,9
Flue gas temperature at max/min. power 80÷60°C	°C	71,0 / 61,0	72,0 / 61,0
Flue gas temperature at max/min. power 50÷30°C	°C	45,0 / 33,0	46,0 / 33,0

BOX split floor-standing hybrid system

DESCRIPTION	U.M.	POWER MAX	
		65 P	80 P
Excess air at max.power		1,27	1,27
Excess air at min.power		1,27	1,27
Max-min flue gas mass flow rate	kg/s	0,0250-0,0070	0,0300-0,0070
Available useful discharge head P.max	Pa	510	630
Available useful discharge head P.min	Pa	35	35
Flue side pressure drop	mbar	-	-
NOx	mg/kWh	34,2	36,4
Water-side pressure losses with ΔT 20°C	mbar	-	-
Residual head on the water side with ΔT 20°C	mbar	490	390
Water-side pressure losses with ΔT 10°C	mbar	-	-
Residual head on the water side with ΔT 10°C	mbar	-	-
Water content	l	15	15
Maximum working pressure	bar	6	6
Expansion tank capacity	l	-	-
Power supply	V/Hz	230-50	230-50
Electrical protection level	IP	IPX4D	IPX4D
Electrical consumption with boiler at max. power	W	63	77
Electrical consumption with boiler at min. power	W	30	30
Electrical consumption with pumps at max. power	W	-	-
Electrical consumption with pumps at min. power	W	-	-
Flue gas discharge diameter	mm	80	80
Empty weight	kg	78	78
Category according to UNI 10642		II 2H3P appliance	II 2H3P appliance
Boiler water content	l	-	-
Boiler losses	W/K	-	-
Boiler material		-	-
Insulation thickness	mm	-	-
Boiler circulator absorption	W	-	-
Sanitary expansion vessel	l	-	-
Noise	dB(A)	53	54
Nominal/min natural gas pressure supply (G20)	mbar	20 / 17	20 / 17
Nominal/min gas pressure supply (G31)	mbar	37 / 25	37 / 25

BOX split floor-standing hybrid system

Technical data

DESCRIPTION	U.M.	POWER MAX			
		100	110	130	150
Material		STEEL	STEEL	STEEL	STEEL
Efficiency class		> 93 + 2 log P _n	> 93 + 2 log P _n	> 93 + 2 log P _n	> 93 + 2 log P _n
Gas type		NG-LPG	NG-LPG	NG-LPG	NG-LPG
Flue systems installation type	°C	20	20	20	20
Max. rated heat input at furnace (LCV)	kW	90,0	97,0	112,0	131,0
Min. rated heat input at furnace (LCV)	kW	19,4	19,4	22,4	26,2
Max. rated heat output (80÷60°C)	kW	88,3	95,2	109,8	129,0
Min. rated heat output (80÷60°C)	kW	19,2	19,2	22,1	26,0
Max. rated heat output (50÷30°C)	kW	97,4	105,1	121,1	142,1
Min. rated heat output (50÷30°C)	kW	21,1	21,1	24,5	28,9
Efficiency at max. rated heat output (80÷60°C)	%	98,2	98,1	98,5	98,3
Efficiency at min. rated heat output (80÷60°C)	%	98,8	98,8	99,2	99,1
Efficiency at max. rated heat output (50÷30°C)	%	108,3	108,2	108,6	108,3
Efficiency at min. rated heat output (50÷30°C)	%	109,2	109,2	110,0	110,0
Useful efficiency at 30%	%	109,1	109,0	109,0	109,1
Heat loss in standby mode	%	0,1	0,1	0,1	0,1
Chimney losses with burner on at P.max	%	2,5	2,6	2,5	2,6
Chimney losses with burner on at P.min	%	0,2	0,2	0,1	0,1
Blanket losses with burner on with 70°C average temperature	%	0,9	0,9	0,9	0,9
Blanket losses with burner off with 70°C average temperature	%	0,9	0,9	0,9	0,9
Flue gas temperature at max/min. power 80÷60°C	°C	76,0 / 62,0	78,0 / 62,0	75,0 / 61,0	77,0 / 61,0
Flue gas temperature at max/min. power 50÷30°C	°C	47,0 / 35,0	49,0 / 35,0	45,0 / 33,0	48,0 / 35,0
Excess air at max.power		1,27	1,27	1,27	1,27
Excess air at min.power		1,27	1,27	1,27	1,27
Max-min flue gas mass flow rate	kg/s	0,0400-0,0072	0,0460-0,0072	0,0500-0,0100	0,0600-0,0110
Available useful discharge head P.max	Pa	560	610	500	353
Available useful discharge head P.min	Pa	32	32	30	28
Flue side pressure drop	mbar	-	-	-	-
NOx	mg/kWh	38,1	38,7	39,3	46,1
Water-side pressure losses with ΔT 20°C	mbar	160	210	350	510
Residual head on the water side with ΔT 20°C	mbar	-	-	-	-
Water-side pressure losses with ΔT 10°C	mbar	-	-	-	-
Residual head on the water side with ΔT 10°C	mbar	-	-	-	-
Water content	l	17	17	23	25
Maximum working pressure	bar	6	6	6	6
Expansion tank capacity	l	-	-	-	-
Power supply	V/Hz	230-50	230-50	230-50	230-50
Electrical protection level	IP	IPX4D	IPX4D	IPX4D	IPX4D
Electrical consumption with boiler at max. power	W	150	203	205	302
Electrical consumption with boiler at min. power	W	36	31	44	45
Electrical consumption with pumps at max. power	W	-	-	-	-
Electrical consumption with pumps at min. power	W	-	-	-	-
Flue gas discharge diameter	mm	110	110	110	110
Empty weight	kg	81	81	93	97
Category according to UNI 10642		II 2H3P appliance	II 2H3P appliance	II 2H3P appliance	II 2H3P appliance
Boiler water content	l	-	-	-	-
Boiler losses	W/K	-	-	-	-
Boiler material		-	-	-	-
Insulation thickness	mm	-	-	-	-
Boiler circulator absorption	W	-	-	-	-
Sanitary expansion vessel	l	-	-	-	-
Noise	dB(A)	55	56	57	57
Nominal/min natural gas pressure supply (G20)	mbar	20 / 17	20 / 17	20 / 17	20 / 17
Nominal/min gas pressure supply (G31)	mbar	37 / 25	37 / 25	37 / 25	37 / 25

BOX split floor-standing hybrid system

ERP regulation technical data table

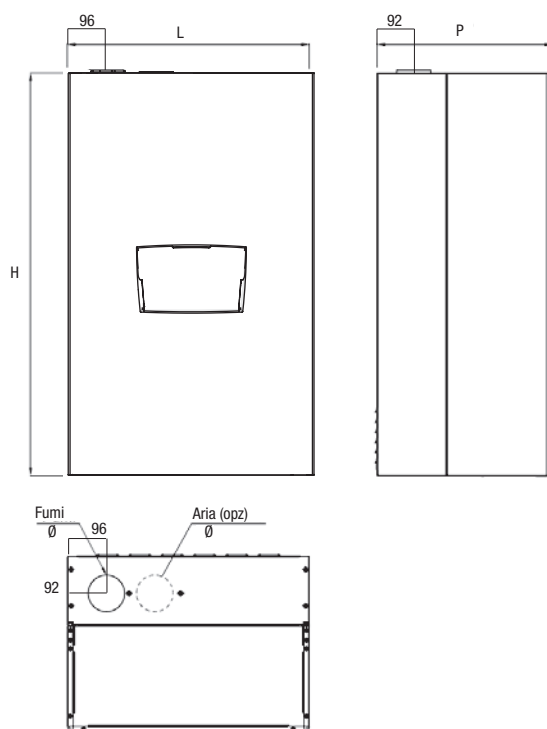
Parameter	Symbol	Unit	POWER MAX	
			65 P	80 P
Seasonal efficiency class in central heating mode			A	A
Seasonal efficiency class in water heating			-	-
Useful (rated) heat output	P _{nominal}	kW	56	68
Seasonal efficiency class in room heating mode	η_s	%	94	94
Useful heat output P_n				
At useful heat output and at high temperature capacity (*)	P ₄	kW	55,7	67
At 30% of useful heat output and at low temperature capacity P ₁ (HHV)	P ₁	kW	18,7	22,3
Efficiency				
At useful heat output and at high temperature capacity (*)	η_4	%	88,4	88,2
At 30% of useful heat output and at low temperature capacity P ₁ (HHV)	η_1	%	98,2	98,0
Auxiliary electrical consumption				
At full load	e _{lmax}	W	63	77
At partial load	e _{lmin}	W	30	30
In standby mode	PSB	W	13	13
Other parameters				
Thermal losses in Stand-by mode	P _{stby}	W	72,0	87,0
Pilot flame energy consumption	P _{ign}	W	-	-
Yearly energy consumption	Q _{HE}	GJ	117	141
Noise level, indoor (sound power)	LWA	dB	53	54
Nitrogen oxide emissions (NO _x)	NO _x	mg/kWh	34,2	36,4
For heating combi boilers				
Declared load profile				
Energy efficiency class in water heating	η_{wh}	%	-	-
Daily electrical energy consumption	Q _{elec}	kWh	-	-
Daily fuel consumption	Q _{fuel}	kWh	-	-
Annual electrical energy consumption	AEC	kWh	-	-
Annual fuel consumption	AFC	GJ	-	-

BOX split floor-standing hybrid system

Parameter		Simbol	Unit	POWER MAX			
				100	110	130	150
Seasonal efficiency class in central heating mode				-	-	-	-
Seasonal efficiency class in water heating				-	-	-	-
Useful (rated) heat output		P _{nominal}	kW	88	95	110	129
Seasonal efficiency class in room heating mode		η_s	%	94	94	94	94
Useful heat output P_n							
At useful heat output and at high temperature capacity (*)	(*)	P ₄	kW	88,3	95,3	109,8	129,0
At 30% of useful heat output and at low temperature capacity P ₁ (HHV)	(**)	P ₁	kW	29,4	31,7	36,6	43,0
Efficiency							
At useful heat output and at high temperature capacity (*)		η_4	%	88,3	88,2	88,6	88,2
At 30% of useful heat output and at low temperature capacity P ₁ (HHV)		η_1	%	98,1	98,0	98,0	98,1
Auxiliary electrical consumption							
At full load		e _{lmax}	W	150	203	205	302
At partial load		e _{lmin}	W	36	31	44	45
In standby mode		PSB	W	6	6	6	8
Other parameters							
Thermal losses in Stand-by mode		P _{stby}	W	115,0	124,0	143,0	168,0
Pilot flame energy consumption		P _{ign}	W	-	-	-	-
Yearly energy consumption		Q _{HE}	GJ	-	-	-	-
Noise level, indoor (sound power)		L _{WA}	dB	55	56	57	57
Nitrogen oxide emissions (NO _x)		NO _x	mg/kWh	38,1	38,7	39,3	46,1
For heating combi boilers							
Declared load profile							
Energy efficiency class in water heating		η_{wh}	%	-			-
Daily electrical energy consumption		Q _{elec}	kWh	-			-
Daily fuel consumption		Q _{fuel}	kWh	-			-
Annual electrical energy consumption		AEC	kWh	-			-
Annual fuel consumption		AFC	GJ	-			-

BOX split floor-standing hybrid system

Overall dimensions and weights



Model	H mm	L mm	P mm	flues gas/air Ø mm	Net weight kg
POWER MAX 65 P	1000	600	435	80	78
POWER MAX 80 P	1000	600	435	80	78
POWER MAX 100	1000	600	435	110	81
POWER MAX 110	1000	600	435	110	81
POWER MAX 130	1165	600	435	110	93
POWER MAX 150	1165	600	435	110	97

BOX split floor-standing hybrid system

POWER MAX BOX

Product Description

POWER MAX BOX is Beretta's new modular condensing system, specially designed and developed to achieve very high energy efficiency values while minimizing the space occupied.

The system, ready for quick and easy installation, consists of technical cabinets designed according to the principles of modularity, composed of an assembled anodized aluminum frame and painted panels.

The standard product is suitable for indoor installation, with open chamber combustion; it can be converted to sealed combustion or to a version for outdoor installation with the installation of specific accessory kits.

Cabinets are equipped with 2, 3, or 4 thermal elements from 57 up to 131 kW, for a total capacity from 114 up to 524 kW. Each thermal module is associated with a low-consumption circulator with modulating water flow control, which can maintain a constant ΔT° between supply and return and maximize condensation and efficiency.

The range also includes as standard the electronic management and control regulation, hydraulic supply and return manifolds, gas, flue gas and condensate drainage manifolds.

The heat exchangers, with patented geometries, consist of two smooth concentric stainless steel tubes, having a pentagonal cross-section the inside and a circular cross-section the outside, respectively; they have been specially designed to maximize the exchange surface area, offer maximum corrosion resistance and minimum pressure drop. These features allow them to work with high ΔT , enabling reduced plant set-up times. models with 131 kW exchanger (300-450-600) are prepared for cascade installation, with side-by-side coupling, up to a maximum of 10 units in total and an output of 1310 kW.

The control electronics, compatible with MOD-BUS protocol, allows climate control with cascade management of thermal modules, automatic summer/winter switching, the possibility of remote management via 0..10V input and alarm signal output.

The control system manages heat distribution on the secondary circuit, controlling: a direct zone, one or more mixed zones (1 to 3 depending on the model), and the boiler circuit.

Through special accessories there is also the possibility of managing additional mixed zones (up to a maximum of 16).

Optimal combustion management and high modulation ratios (up to 1:50) enable high efficiency and low pollutant emissions (Class 6 according to UNI EN 15502).

Service continuity is guaranteed by the system modularity: even in the case of a module failure, the overall operation it is not prejudiced

Accessories designed to ensure simple, quick and complete installation of the central heating unit are also available.

- Service continuity is guaranteed by the system modularity: even in the case of a module failure, the overall operation it is not prejudiced
- The anti-freeze and anti-seize functions ensure operation in all weather conditions
- A wide range of accessories is available to ensure simple, fast and complete cascade installation.
- Maximum working pressure: 6 bar.

Technical data

DESCRIPTION	U.M.	POWER MAX BOX									
		130-2		160-2		200-2		260-2		300-2	
		G20	G31	G20	G31	G20	G31	G20	G31	G20	G31
Appliance type											
Type		Condensing heating B23, B53; B53P									
Gas type		G20-G25-G30-G31									
Combustion chamber		Vertical									
Flue systems installation type		B23, B23P, B53P, C13(*), C33(*), C53(*), C63(*)									
Appliance category according to UNI 10642		II2H3P									
OUTPUTS AND EFFICIENCIES											
Maximum rated heat input at furnace LHV	kW	114,00		136,00		180,00		223,20		262,00	
Maximum rated heat input at furnace HHV	kW	126,0	ND	152,0	ND	200,0	ND	248,0	ND	292,0	ND
Maximum useful heat output 80÷60°C	kW	111,4	ND	134,0	ND	176,6	ND	219,6	ND	258,0	ND
Maximum useful heat output 60÷40°C	kW	119,2	ND	142,8	ND	187,6	ND	232,4	ND	274,6	ND
Maximum useful heat output 50÷30°C	kW	123,8	ND	147,8	ND	194,8	ND	242,2	ND	284,2	ND
Minimum thermal flow rate PCI	kW	13.7	ND	13.7	ND	19.4	ND	22.4	ND	26.3	ND

BOX split floor-standing hybrid system

DESCRIPTION	U.M.	POWER MAX BOX									
		130-2		160-2		200-2		260-2		300-2	
		G20	G31	G20	G31	G20	G31	G20	G31	G20	G31
Minimum heat flow rate PCS	kW	15,0	ND	15,0	ND	21,6	ND	24,9	ND	29,0	ND
Minimum heat output 80÷60°C	kW	13,5	ND	13,5	ND	19,2	ND	22,1	ND	26,0	ND
Minimum heat output 50÷30°C	kW	14,9	ND	14,9	ND	21,1	ND	24,5	ND	28,9	ND
Efficiency with nominal heat output 80÷60°C (LHV)	%	97,72		98,53		98,11		98,40		98,47	
Efficiency with minimum heat output 80÷60°C (LHV)	%	98,90		98,90		98,80		99,20		99,10	
Efficiency with nominal heat output 50÷30°C (LHV)	%	108,60		108,10		108,30		108,60		108,30	
Efficiency with minimum heat output 50÷30°C (LHV)	%	109,30		109,30		109,20		110,00		110,00	
Efficiency at 30% 50÷30°C HHV (LHV)	%	98,94 (109,36)		97,81 (109,31)		98,00 (108,89)		98,39 (108,93)		98,17 (109,41)	
Combustion efficiency	%	99,0		99,3		99,3		99,3		99,3	
Chimney losses with burner off	%	0,10		0,10		0,10		0,10		0,10	
Chimney losses with burner on P.max 80÷60°C	%	2,30		2,30		2,50		2,50		2,60	
Losses at the chimney burner ignited at 30% Pn 50÷30°C	%	0,50		0,50		0,60		0,50		0,60	
Chimney losses with burner on P.min 80÷60°C	%	0,12		0,11		0,22		0,10		0,10	
Blanket losses with burner on with 70°C average temperature	%	0,50		0,50		0,50		0,50		0,50	
Blanket losses with burner off with 70°C average temperature	%	0,50		0,50		0,50		0,50		0,50	
Flue gas temperature at max power and min power 80÷60°C	°C	71 - 61		72 - 61		76 - 62		75 - 61		77 - 61	
Flue temperature at max and min heat output 50÷30°C	°C	45 - 33		46 - 33		47 - 35		45 - 33		48 - 35	
Air index λ at max power	no.	1,27	1,29	1,27	1,29	1,27	1,29	1,27	1,29	1,27	1,29
Air index λ at min power	no.	1,27	1,29	1,27	1,29	1,27	1,29	1,27	1,29	1,27	1,29
Flue gas mass flow rate at max-min power	g/s	53-6	51-6	64-6	62-6	84-9	82-9	104-10	101-10	122-12	119-12
Flue residual head at P.min	Pa	35,00		35,00		32,00		30,00		28,00	
Flue residual head at P.max	Pa	510,00		630,00		560,00		500,00		353,00	
ELECTRICAL DATA											
Power supply	V-Hz	230-50									
Electrical protection level	IP	IPX4D									
Electric power consumption of boiler with max	W	198		264		460		706		964	
Boiler electrical power input at min power	W	92		96		126		198		220	
Electric power input pumps at max power	W	100		110		160		296		360	
Electrical power input pumps at min power	W	40		44		64		118		144	
HEATING OPERATION											
Water temperature selection range (with plate heat exchanger)	°C	20-80/(85)*									
Safety thermostat intervention temperature	°C	95									
Maximum operating temperature	°C	100									
Maximum working pressure	bar	6									
Minimum working pressure	bar	0,7									
Water content	l	45,00		45,00		50,00		60,00		75,00	
Water-side pressure losses with ΔT 20°C "V versions"	mbar	102		135		168		356		526	
Residual head on water side with ΔT 20°C "P versions"	mbar	400		280		450		300		500	
Maximum condensate production at maximum power 50÷30°C	l/h	17,80		20,20		27,20		35,00		39,60	
Noise (sound power)	dB(A)	56		58		58		60		61	

BOX split floor-standing hybrid system

DESCRIPTION	U.M.	POWER MAX BOX									
		130-2		160-2		200-2		260-2		300-2	
		G20	G31	G20	G31	G20	G31	G20	G31	G20	G31
GAS SUPPLY DATA											
Maximum gas supply pressure	mbar	60	60	60	60	60	60	60	60	60	60
Gas supply pressure rating	mbar	20	37	20	37	20	37	20	37	20	37
Minimum gas supply pressure	mbar	17	25	17	25	17	25	17	25	17	25
DIMENSION DATA											
Heating flow diameter	Ø DN	3" DN80 PN6		3" DN80 PN6		3" DN80 PN6		3" DN80 PN6		5 "DN125 PN6	
Heating Return diameter	Ø DN	3" DN80 PN6		3" DN80 PN6		3" DN80 PN6		3" DN80 PN6		5 "DN125 PN6	
Gas inlet diameter	Ø DN	2" DN50 PN6		2" DN50 PN6		2" DN50 PN6		2" DN50 PN6		3" DN80 PN6	
Condensate drain	Ø mm	50		50		50		50		50	
Boiler height	mm	1800		1800		1800		1800		1800	
Boiler width	mm	900		900		900		900		900	
Boiler depth	mm	890		890		890		890		890	
Flue discharge diameter	Ø mm	DN160		DN160		DN160		DN160		DN300/DN160	
Air intake diameter (optional)	Ø mm	DN160		DN160		DN160		DN160		DN300	
Empty weight	kg	270		270		280		300		350	

(*) Configurations possible only with installation of dedicated accessories (available separately).

(**) Weight values calculated according to EN 15502.

(***) Values referred to atmospheric pressure at sea level.

BOX split floor-standing hybrid system

Technical data

DESCRIPTION	U.M.	POWER MAX BOX									
		330-3		390-3		450-3		520-4		600-4	
		G20	G31	G20	G31	G20	G31	G20	G31	G20	G31
Appliance type											
Type		Condensing heating B23, B53; B53P									
Gas type		G20-G25-G30-G31									
Combustion chamber		Vertical									
Flue systems installation type		B23, B23P, B53P, C13(*), C33(*), C53(*), C63(*)									
Appliance category according to UNI 10642		II2H3P									
OUTPUTS AND EFFICIENCIES											
Maximum rated heat input at furnace LHV	kW	291,00	ND	336,00	ND	393,00	ND	446,40	ND	524,00	ND
Maximum rated heat input at furnace HHV	kW	324,0	ND	372,0	ND	438,0	ND	496,0	ND	584,0	ND
Maximum useful heat output 80÷60°C	kW	285,9	ND	329,4	ND	387,0	ND	439,2	ND	516,0	ND
Maximum useful heat output 60÷40°C	kW	303,3	ND	348,6	ND	411,9	ND	464,8	ND	549,2	ND
Maximum useful heat output 50÷30°C	kW	315,3	ND	363,6	ND	426,3	ND	484,4	ND	568,4	ND
Minimum thermal flow rate PCI	kW	19,4	ND	22,4	ND	26,3	ND	22,4	ND	26,3	ND
Minimum heat flow rate PCS	kW	21,6	ND	24,9	ND	29,0	ND	24,9	ND	29,0	ND
Minimum heat output 80÷60°C	kW	19,2	ND	22,1	ND	26,0	ND	22,1	ND	26,0	ND
Minimum heat output 50÷30°C	kW	21,1	ND	24,5	ND	28,9	ND	24,5	ND	28,9	ND
Efficiency with nominal heat output 80÷60°C (LHV)	%	98,25		98,4		98,47		98,40		98,47	
Efficiency with minimum heat output 80÷60°C (LHV)	%	98,80		99,20		99,10		99,20		99,10	
Efficiency with nominal heat output 50÷30°C (LHV)	%	108,20		108,60		108,30		108,60		108,30	
Efficiency with minimum heat output 50÷30°C (LHV)	%	109,20		110,00		110,00		110,00		110,00	
Efficiency at 30% 50÷30°C HHV (LHV)	%	97,84 (108,93)		98,39 (108,93)		98,17 (109,41)		98,39 (108,93)		98,17 (109,41)	
Combustion efficiency	%	99,0		99,0		99,0		99,3		99,3	
Chimney losses with burner off	%	0,10		0,10		0,10		0,10		0,10	
Chimney losses with burner on P.max 80÷60°C	%	2,60		2,50		2,60		2,50		2,60	
Losses at the chimney burner ignited at 30% Pn 50÷30°C	%	0,60		0,50		0,60		0,50		0,60	
Chimney losses with burner on P.min 80÷60°C	%	0,20		0,10		0,10		0,10		0,10	
Blanket losses with burner on with 70°C average temperature	%	0,33		0,33		0,33		0,25		0,25	
Blanket losses with burner off with 70°C average temperature	%	0,33		0,33		0,33		0,25		0,25	
Flue gas temperature at max power and min power 80÷60°C	°C	78 - 62		75 - 61		77 - 61		75 - 61		77 - 61	
Flue temperature at max and min heat output 50÷30°C	°C	49 - 35		45 - 33		48 - 35		45 - 33		48 - 35	
Air index λ at max power	no.	1,27	1,29	1,27	1,29	1,27	1,29	1,27	1,29	1,27	1,29
Air index λ at min power	no.	1,27	1,29	1,27	1,29	1,27	1,29	1,27	1,29	1,27	1,29
Flue gas mass flow rate at max-min power	g/s	136-9	132-9	156-10	152-10	183-12	179-12	208-10	203-10	245-12	238-12
Flue residual head at P.min	Pa	32,00		30,00		28,00		30,00		28,00	
Flue residual head at P.max	Pa	610,00		500,00		353,00		500,00		353,00	
ELECTRICAL DATA											
Power supply	V-Hz	230-50									
Electrical protection level	IP	IPX4D									
Electric power consumption of boiler with max	W	951		1059		1446		1412		1928	
Boiler electrical power input at min power	W	228		297		330		396		440	
Electric power input pumps at max power	W	342		444		540		592		720	
Electrical power input pumps at min power	W	135		177		216		236		288	

BOX split floor-standing hybrid system

DESCRIPTION	U.M.	POWER MAX BOX									
		330-3		390-3		450-3		520-4		600-4	
		G20	G31	G20	G31	G20	G31	G20	G31	G20	G31
HEATING OPERATION											
Water temperature selection range (with plate heat exchanger)	°C	20-80/(85)*									
Safety thermostat intervention temperature	°C	95									
Maximum working temperature	°C	100									
Maximum working pressure	bar	6									
Minimum working pressure	bar	0,7									
Water content	l	80,00		100,00		120,00		120,00		150,00	
Water-side pressure losses with ΔT 20°C "V versions"	mbar	230		356		526		356		526	
Residual head on water side with ΔT 20°C "P versions"	mbar	300		300		500		300		500	
Maximum condensate production at maximum power 50÷30°C	l/h	45,00		52,50		59,40		70,00		79,20	
Noise (sound power)	dB(A)	60		61		62		63		64	
GAS SUPPLY DATA											
Maximum gas supply pressure	mbar	60	60	60	60	60	60	60	60	60	60
Gas supply pressure rating	mbar	20	37	20	37	20	37	20	37	20	37
Minimum gas supply pressure	mbar	17	25	17	25	17	25	17	25	17	25
DIMENSION DATA											
Heating flow diameter	Ø DN	3" DN80 PN6		3" DN80 PN6		5 "DN125		3" DN80 PN6		5 "DN125	
Heating Return diameter	Ø DN	3" DN80 PN6		3" DN80 PN6		5 "DN125		3" DN80 PN6		5 "DN125	
Gas inlet diameter	Ø DN	2" DN50 PN6		2" DN50 PN6		3" DN80 PN6		2" DN50 PN6		3" DN80 PN6	
Condensate drain	Ø mm	50		50		50		50		50	
Boiler height	mm	1800		1800		1800		1800		1800	
Boiler width	mm	1800		1800		1800		1800		1800	
Boiler depth	mm	890		890		890		890		890	
Flue discharge diameter	Ø mm	DN160		DN160		DN300/DN160		DN160		DN300	
Air intake diameter (optional)	Ø mm	DN160		DN160		DN300		DN160		DN300	
Empty weight	kg	450		490		540		560		600	

(*) Configurations possible only with installation of dedicated accessories (available separately).

(**) Weight values calculated according to EN 15502.

(***) Values referred to atmospheric pressure at sea level.

BOX split floor-standing hybrid system

ERP regulation technical data table

POWER MAX BOX 130-2 / 160-2 / 200-2 / 260-2 / 300-2

Parameter			Unit	POWER MAX BOX				
				130-2	160-2	200-2	260-2	300-2
Useful (rated) heat output			kW	114,0	136,0	180,0	223,2	262,0
Seasonal efficiency class in room heating mode	ηs		%	94	93	93	93	93
Useful heat output Pn								
At useful heat output and at high temperature capacity (*)	P4	G20	kW	114,0	134,0	176,6	219,6	258,0
At 30% of useful heat output and at low temperature capacity P1 (HHV)	P1	G20	kW	37,4	44,6	58,8	73,2	86,6
Efficiency								
At useful heat output and at high temperature capacity (*)	η4	G20	%	88,41	88,16	88,30	88,55	88,36
At 30% of useful heat output and at low temperature capacity P1 (HHV)	η1	G20	%	98,94	97,81	98,00	98,39	98,17
Auxiliary electrical consumption								
At full load	elmax		W	198	264	460	706	964
At partial load	elmin		W	92	96	126	198	220
In standby mode	PSB		W	26	26	12	12	16
Other parameters								
Thermal losses in Stand-by mode	Pstby		W	159,16	194,47	255,56	316,64	374,47
Pilot flame energy consumption	QHE		GJ	236	282	364	384	532,0
Yearly energy consumption	LWA		dB(A)	56	58	58	60	61,00
Noise level, indoor (sound power)			mg/kWh	34,20	36,40	38,10	39,30	46,10
Nitrogen oxide emissions (NOx)				6	6	6	6	6
EMISSION VALUES AT MAX GAS FLOW *								
CO s.a. less than		G20 G31	p.p.m.	79,0 142,0	90,0 147,0	81,0 153,0	89,0 177,0	91,5 185
CO ₂ **		G20 G31	%	9,0 10,4	9,0 10,4	9,0 10,4	9,0 10,4	9,0 10,4
NOx s.a. less than		G20 G31	p.p.m.	30 40	30 40	30 40	30 40	30 40
Flues temperature			°C	71,0	72,0	76,0	75,0	77,0
EMISSION VALUES AT MIN GAS FLOW								
CO s.a. less than		G20 G31	p.p.m.	6,5 11,0	6,5 11,0	7,5 12,0	4,6 14,0	5,6 16,0
CO ₂ **		G20 G31	%	9,0 10,4	9,0 10,5	9,0 10,4	9,0 10,4	9,0 10,4
NOx s.a. less than		G20 G31	p.p.m.	30 40	30 40	30 40	30 40	30 40
Flues temperature			°C	61,0	61,0	62,0	61,0	61,0

* Values calculated according to UNI EN 15502 standard.

** Values referring to atmospheric pressure at sea level.

BOX split floor-standing hybrid system

POWER MAX BOX 330-3 / 390-3 / 450-3 / 520-4 / 600-4

Parameter			Unit	POWER MAX BOX				
				330-3	390-3	450-3	520-4	600-4
Useful (rated) heat output			kW	291,0	334,8	393,0	446,4	524,0
Seasonal efficiency class in room heating mode	ηs		%	93	93	93	93	93
Useful heat output Pn								
At useful heat output and at high temperature capacity (*)	P4	G20	kW	285,9	329,4	387,0	439,2	516,0
At 30% of useful heat output and at low temperature capacity P1 (HHV)	P1	G20	kW	95,1	109,8	129,0	146,4	172,0
Efficiency								
At useful heat output and at high temperature capacity (*)	η4	G20	%	88,24	88,55	88,36	88,55	88,36
At 30% of useful heat output and at low temperature capacity P1 (HHV)	η1	G20	%	97,84	98,39	98,17	98,39	98,17
Auxiliary electrical consumption								
At full load	Elmax		W	951	1059	1446	1412	1928
At partial load	Elmin		W	228	297	330	396	440
In standby mode	PSB		W	18	18	24	24	32
Other parameters								
Thermal losses in Stand-by mode	Pstby		W	414,19	474,96	561,71	636,09	748,95
Pilot flame energy consumption	QHE		GJ	588	678	798,0	904	1064,0
Yearly energy consumption	LWA		dB(A)	60	61	62,00	63	64,00
Noise level, indoor (sound power)			mg/kWh	38,70	39,30	46,10	39,30	46,10
Nitrogen oxide emissions (NOx)				6	6	6	6	6
EMISSION VALUES AT MAX GAS FLOW *								
CO s.a. less than		G20 G31	p.p.m.	91,5 163,0	89,0 177,0	91,5 185,0	89,0 177,0	91,5 185,0
CO ₂ **		G20 G31	%	9,0 10,4	9,0 10,4	9,0 10,4	9,0 10,4	9,0 10,4
NOx s.a. less than		G20 G31	p.p.m.	30 40	30 40	30 40	30 40	30 40
Flues temperature			°C	78,0	75,0	77,0	75,0	77,0
EMISSION VALUES AT MIN GAS FLOW								
CO s.a. less than		G20 G31	p.p.m.	7,5 12,0	4,6 14,0	5,6 16,0	4,6 14,0	5,6 16,0
CO ₂ **		G20 G31	%	9,0 10,4	9,0 10,4	9,0 10,4	9,0 10,4	9,0 10,4
NOx s.a. less than		G20 G31	p.p.m.	30 40	30 40	30 40	30 40	30 40
Flues temperature			°C	62,0	61,0	61,0	61,0	61,0

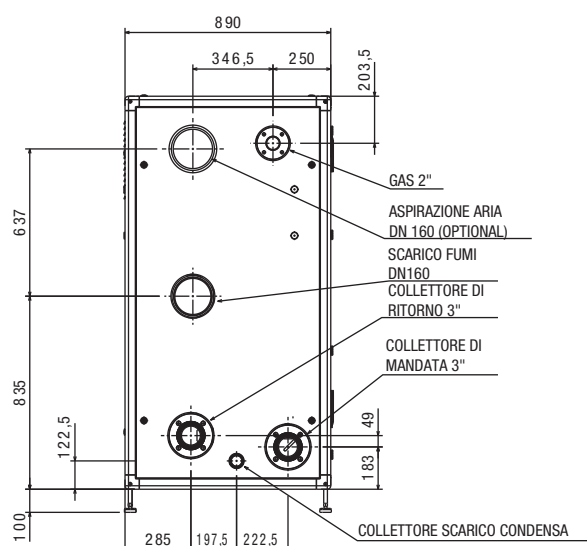
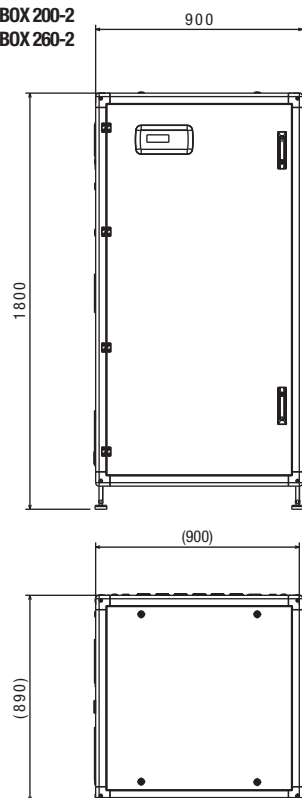
* Values calculated according to UNI EN 15502 standard.

** Values referring to atmospheric pressure at sea level.

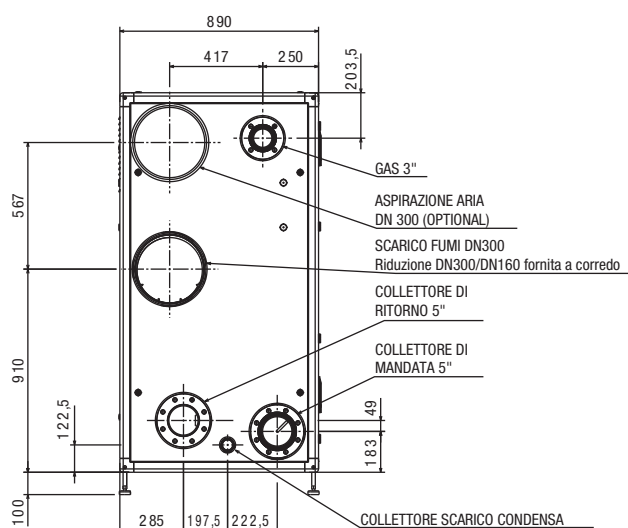
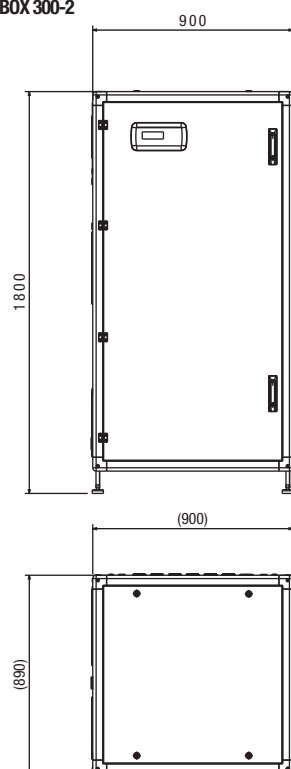
BOX split floor-standing hybrid system

Overall dimensions and weights

POWER MAX BOX 130-2
 POWER MAX BOX 160-2
 POWER MAX BOX 200-2
 POWER MAX BOX 260-2

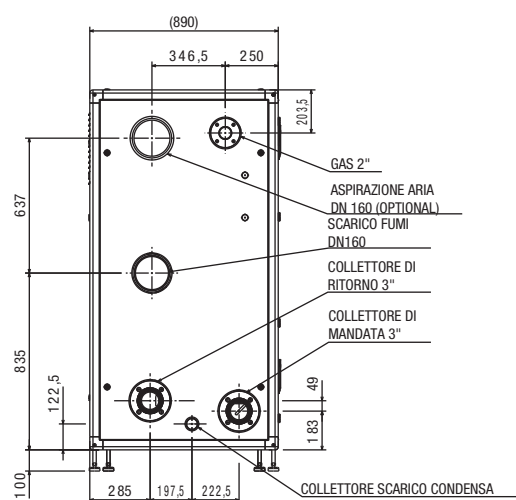
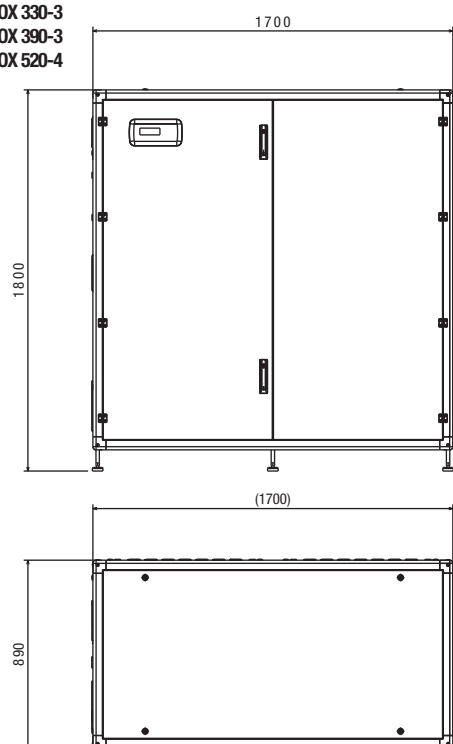


POWER MAX BOX 300-2

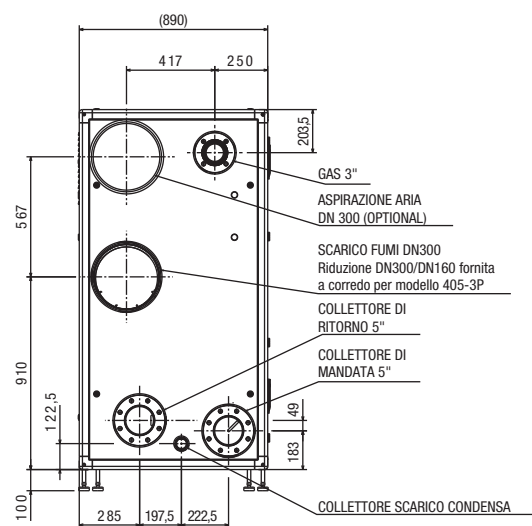
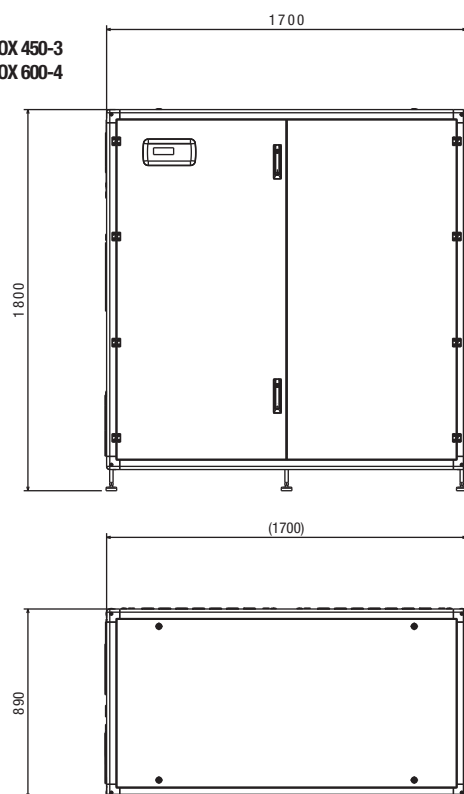


BOX split floor-standing hybrid system

POWER MAX BOX 330-3
POWER MAX BOX 390-3
POWER MAX BOX 520-4



POWER MAX BOX 450-3
POWER MAX BOX 600-4



BOX split floor-standing hybrid system

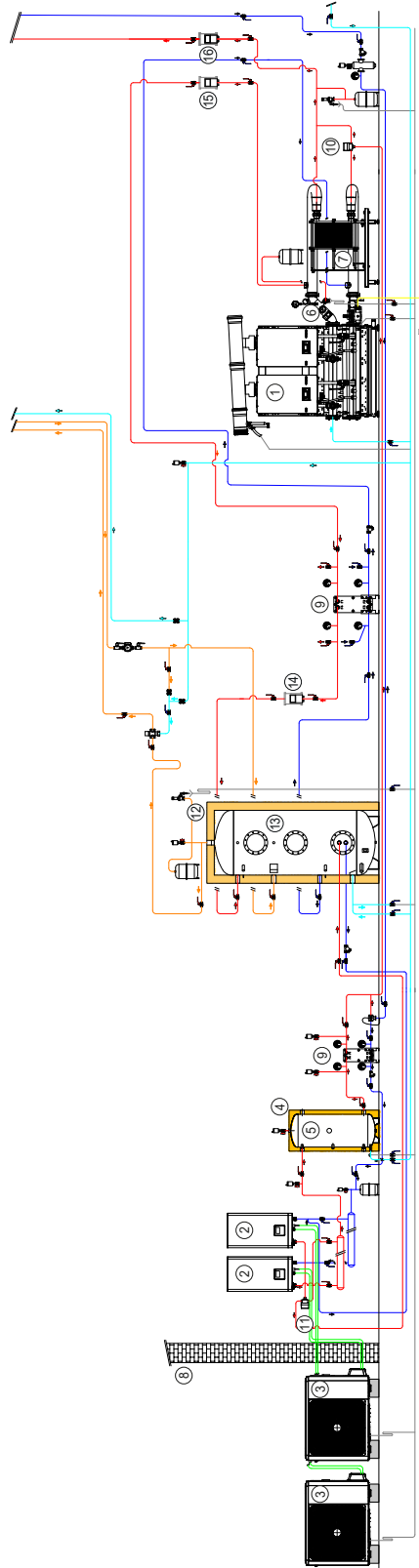
DESCRIPTION	U.M.	POWER MAX BOX				
		130-2	160-2	200-2	260-2	300-2
Heating flow diameter	Ø DN	3" DN80 PN6	3" DN80 PN6	3" DN80 PN6	3" DN80 PN6	5 "DN125 PN6
Heating Return diameter	Ø DN	3" DN80 PN6	3" DN80 PN6	3" DN80 PN6	3" DN80 PN6	5 "DN125 PN6
Gas inlet diameter	Ø DN	2" DN50 PN6	2" DN50 PN6	2" DN50 PN6	2" DN50 PN6	3" DN80 PN6
Condensate drain	Ø mm	50	50	50	50	50
Boiler height	mm	1800	1800	1800	1800	1800
Boiler width	mm	900	900	900	900	900
Boiler depth	mm	890	890	890	890	890
Flue discharge diameter	Ø mm	DN160	DN160	DN160	DN160	DN300/DN160
Air intake diameter (optional)	Ø mm	DN160	DN160	DN160	DN160	DN300
Empty weight	kg	270	270	280	300	350

DESCRIPTION	U.M.	POWER MAX BOX				
		330-3	390-3	450-3	520-4	600-4
Heating flow diameter	Ø DN	3" DN80 PN6	3" DN80 PN6	5 "DN125	3" DN80 PN6	5 "DN125
Heating Return diameter	Ø DN	3" DN80 PN6	3" DN80 PN6	5 "DN125	3" DN80 PN6	5 "DN125
Gas inlet diameter	Ø DN	2" DN50 PN6	2" DN50 PN6	3" DN80 PN6	2" DN50 PN6	3" DN80 PN6
Condensate drain	Ø mm	50	50	50	50	50
Boiler height	mm	1800	1800	1800	1800	1800
Boiler width	mm	1700	1700	1700	1700	1700
Boiler depth	mm	890	890	890	890	890
Flue discharge diameter	Ø mm	DN160	DN160	DN300/DN160	DN160	DN300
Air intake diameter (optional)	Ø mm	DN160	DN160	DN300	DN160	DN300
Empty weight	kg	450	490	540	560	600

System diagrams

Examples of installation with MAX split wall-hung hybrid system

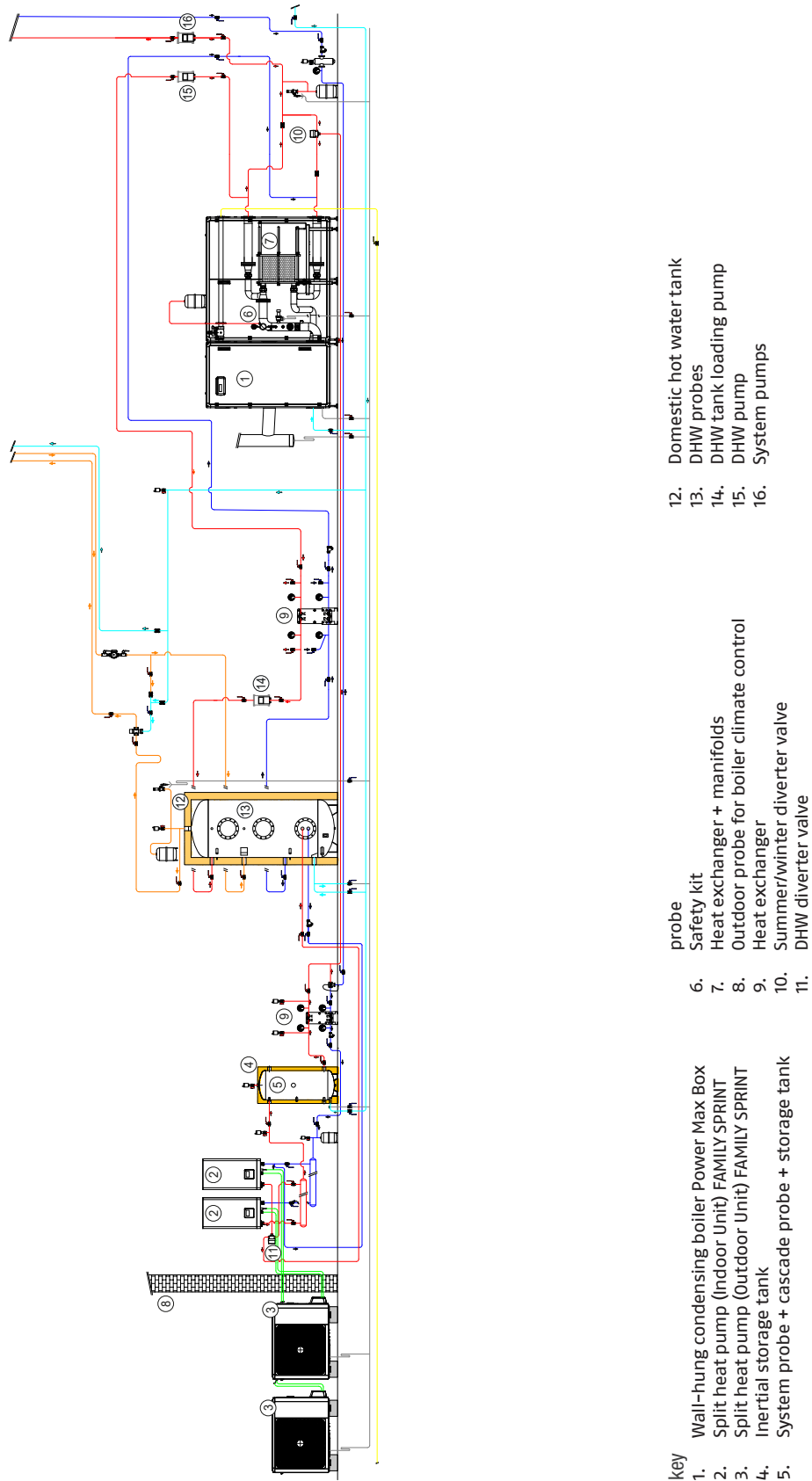
- Dual-function heating and cooling system with a storage tank for DHW production and wall-hung gas condensing boilers



- | | | | |
|-----|---|-----|---|
| key | | | |
| 1. | Wall-hung condensing boiler Power Evo X / Power Max | 5. | System probe + cascade probe + storage tank probe |
| 2. | Split heat pump (Indoor Unit) FAMILY SPRINT | 6. | Safety kit |
| 3. | Split heat pump (Outdoor Unit) FAMILY SPRINT | 7. | Heat exchanger + manifolds |
| 4. | Inertial storage tank | 8. | Outdoor probe for boiler climate control |
| | | 9. | Heat exchanger |
| | | 10. | Summer/winter diverter valve |
| | | 11. | DHW diverter valve |
| | | 12. | Domestic hot water tank |
| | | 13. | DHW probes |
| | | 14. | DHW tank loading pump |
| | | 15. | DHW pump |
| | | 16. | System pumps |

System diagrams

- Dual-function heating and cooling system with a storage tank for DHW production and floor-standing gas condensing boilers





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