



09 | **2021**

Integration HYDRO UNIT M

PRODUCT CATALOGUE

September **2021**



International

**HYDRO UNIT M – HYDRONIC HEAT PUMP**

- Hydronic air-to-water heat pump
- **HP Keymark certified performance.**
- Modbus connectivity as standard
- Variable speed circulating pump as standard
- Source side exchanger with the special hydrophilic and anti-corrosion treatment as standard
- Suitable for heating, cooling and domestic hot water production
- Rotary compressor with DC-Inverter technology
- Operating range -25 °C/+43 °C
- Maximum heating temperature 65 °C
- Electronic expansion valve
- Expansion reservoir as standard
- Very low noise
- **Ecological refrigerant R32**
- **Included remote control can manage completely heating/cooling/ domestic hot water operation, as well as up to 6 units in cascade system (1 master & 5 slaves) even with different power inputs.**
- Anti-freeze program protects the entire system especially the hydraulic parts from damage in very cold ambient air temperature.

Heat pump

CODE	MODEL	DIMENSIONS H x L x P (mm)	HEATING ⁽¹⁾ /COOLING ⁽²⁾ OUTPUT (kW)	CLASS	
				55°C	35°C
SINGLE-PHASE HEAT PUMPS					
20191950	HYDRO UNIT M 004 (*)	792 x 1295 x 429	4.20 / 4.50		
20191951	HYDRO UNIT M 006	792 x 1295 x 429	6.35 / 6.50		
20191952	HYDRO UNIT M 008	945 x 1385 x 526	8.40 / 8.30		
20191953	HYDRO UNIT M 010	945 x 1385 x 526	10.00 / 9.90		
20191954	HYDRO UNIT M 012 (*)	945 x 1385 x 526	12.10 / 12.00		
20191956	HYDRO UNIT M 014 (*)	945 x 1385 x 526	14.50 / 13.50		
20191957	HYDRO UNIT M 016 (*)	945 x 1385 x 526	15.90 / 14.90		
THREE-PHASE HEAT PUMPS					
20191958	HYDRO UNIT M 012T (*)	945 x 1385 x 526	12.10 / 12.00		
20191959	HYDRO UNIT M 014T (*)	945 x 1385 x 526	14.50 / 13.50		
20191960	HYDRO UNIT M 016T (*)	945 x 1385 x 526	15.90 / 14.90		

(1) Outdoor air d.b. + 7 °C / w.b. + 6 °C, water 30 °C - 35 °C.

(2) Outdoor air d.b. + 35 °C/w.b. + 24 °C, water 23 °C - 18 °C.

(*) Available from 2022.

Models suitable for stand-alone installation and for full electric systems in combination with REC10MH control, for hybrid systems (see the dedicated section).

HYDRO UNIT M – HYDRONIC HEAT PUMP

Accessories

CODE	DESCRIPTION
20117745	IDRA HP 300 storage tank
20117746	IDRA HP 500 storage tank
20171999	50 litre inertial buffer tank
4383270	Single-phase resistance kit 1,5 kW 1 "1/2 for IDRA HP 300 storage tank ^{(1) (2)}
20020707	Three-phase resistance kit 3.8 kW 1 "1/2 for IDRA HP 500 storage tank ^{(1) (2)}
20193922	REC10MH remote control
4383504	Solar heat exchanger 0,8 m ² for IDRA HP 300 storage tank ⁽²⁾
4383505	Solar heat exchanger 1,2 m ² for IDRA HP 500 storage tank ⁽²⁾
20168920	1" DHW diverting valve with heater prob ^{(3) (4) (5)}
20182272	Single-phase electric heating element for DHW heater 2.2 kW ^{(3) (6) (7)}
20028567	External air probe
20175281	1" Y water filter ⁽⁸⁾
20171891	Heat pump vibration damper kit

(1) For stand-alone installation.

(2) The accessory must be ordered together with the base unit and is supplied not installed with finished product availability.

(3) Only in combination with REC10MH remote control.

(4) Mandatory in case of domestic water heater installation.

(5) Includes 1 temperature probe for storage tank.

(6) Includes electrical power box and activation relay.

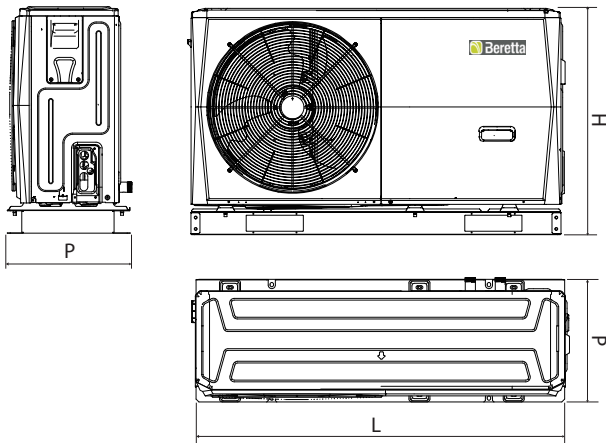
(7) The kit includes the three-way diverting valve for DHW with storage tank probe.

(8) The corresponding filter is supplied with the product. If necessary, it must be used only for HYDRO UNIT M 004 and 006 models.

HYDRO UNIT M – HYDRONIC HEAT PUMP

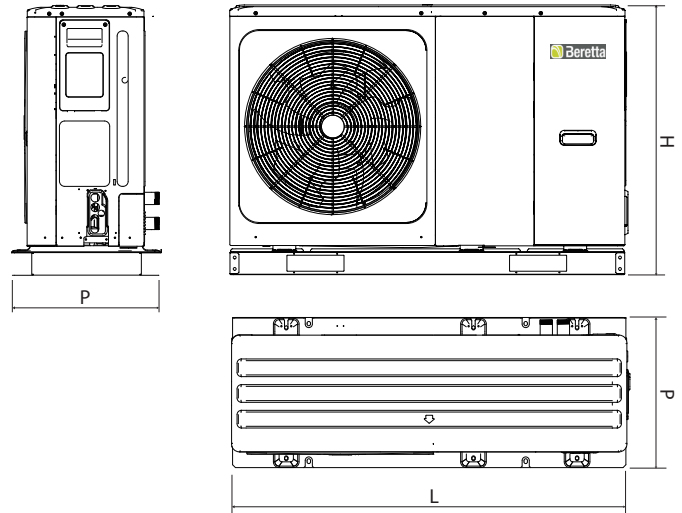
Overall dimensions

HYDRO UNIT M 004-006



HYDRO UNIT M 008÷016

HYDRO UNIT M 012T÷016T



HYDRO UNIT M MODELS	U.O.M	004	006	008	010	012-012T	014-014T	016-016T
OVERALL DIMENSIONS								
H	mm	792	792	945	945	945	945	945
L	mm	1295	1295	1385	1385	1385	1385	1385
P	mm	429	429	526	526	526	526	526
WEIGHT								
Net weight	kg	98	98	121	121	144	144	144

HYDRO UNIT M – HYDRONIC HEAT PUMP

DESCRIPTION	U.O.M.	HYDRO UNIT M 004	HYDRO UNIT M 006	HYDRO UNIT M 008	HYDRO UNIT M 010	HYDRO UNIT M 012
HEATING PERFORMANCE						
Nominal capacity ⁽¹⁾	kW	4,20	6,35	8,40	10,00	12,10
COP ⁽¹⁾		5,10	4,95	5,15	4,95	4,95
Absorbed power ⁽¹⁾	kW	0,82	1,28	1,63	2,02	2,44
SCOP ⁽²⁾		4,85	4,95	5,21	5,19	4,81
η_s ⁽²⁾	%	191	195	205	204	189
Energy class ⁽²⁾ (temperate zone)		A+++	A+++	A+++	A+++	A+++
Nominal capacity ⁽³⁾	kW	4,30	6,30	8,10	10,00	12,30
COP ⁽³⁾		3,80	3,70	3,85	3,75	3,70
Absorbed power ⁽³⁾	kW	1,13	1,70	2,10	2,67	3,32
Nominal capacity ⁽⁴⁾	kW	4,40	6,00	7,50	9,50	11,90
COP ⁽⁴⁾		2,95	2,95	3,18	3,10	3,05
Absorbed power ⁽⁴⁾	kW	1,49	2,03	2,36	3,06	3,90
SCOP ⁽⁵⁾		3,31	3,52	3,36	3,49	3,45
η_s ⁽⁵⁾	%	130	139	132	137	136
Energy class ⁽⁵⁾ (temperate zone)		A++	A++	A++	A++	A++
COOLING PERFORMANCE						
Nominal capacity ⁽⁶⁾	kW	4,50	6,50	8,30	9,90	12,00
EER ⁽⁶⁾		5,50	4,80	5,05	4,55	3,95
Absorbed power ⁽⁶⁾	kW	0,82	1,35	1,64	2,18	3,04
Nominal capacity ⁽⁷⁾	kW	4,70	7,00	7,45	8,20	11,50
EER ⁽⁷⁾		3,45	3,00	3,35	3,25	2,75
Absorbed power ⁽⁷⁾	kW	1,36	2,33	2,22	2,52	4,18
SEER ⁽⁸⁾		4,99	5,34	5,83	5,98	4,89
η_s ⁽⁸⁾	%	196	210	230	235	193
GENERAL						
Electrical power supply	V/ph/Hz	230/1+N/50	230/1+N/50	230/1+N/50	230/1+N/50	230/1+N/50
Sound pressure @1m ⁽⁹⁾	dB(A)	45	48	49	51	53
Sound power ⁽¹⁰⁾	dB(A)	55	58	59	60	65
Compressor		Rotary DC inverter				
Refrigerant charge R32 -GWP 675	Kg	1,40	1,40	1,40	1,40	1,75
Empty weight	Kg	98	98	121	121	144
HYDRAULIC CIRCUIT						
Expansion reservoir capacity	litri	8	8	8	8	8
Minimum operating pressure	bar	3	3	3	3	3
Water connection diameter	BSP GAS	1"	1"	5/4"	5/4"	5/4"

(1) Outdoor air d.b. + 7 °C / w.b. + 6 °C, water 30 °C - 35 °C.

(2) Value referred to the Average climate profile for delivery temperature of 35 °C. Values in accordance with Regulation 811/2013.

(3) Outdoor air d.b. + 7 °C / w.b. + 6 °C, water 40 °C - 45 °C.

(4) Outdoor air d.b. + 7 °C / w.b. + 6 °C, water 47 °C - 55 °C.

(5) Value referred to the Average climate profile for delivery temperature of 55 °C. Values in accordance with Regulation 811/2013.

(6) Outdoor air d.b. + 35 °C/w.b. + 24 °C, water 23 °C - 18 °C.

(7) Outdoor air d.b. + 35 °C/w.b. + 24 °C, water 12 °C - 7 °C.

(8) Value referred to the Average climate profile for delivery temperature of 7 °C. Values in accordance with Regulation 2281/2016.

(9) Measured at a distance of 1m in front of the unit and (1+unit height)/2m above the floor in a semi-anechoic chamber.

(10) Declared sound emission values, in compliance with the EN 12102-1 Standard.

HYDRO UNIT M – HYDRONIC HEAT PUMP

DESCRIPTION	U.O.M.	HYDRO UNIT M 014	HYDRO UNIT M 016	HYDRO UNIT M 012T	HYDRO UNIT M 014T	HYDRO UNIT M 016T
HEATING PERFORMANCE						
Nominal capacity ⁽¹⁾	kW	14,50	15,90	12,10	14,50	15,90
COP ⁽¹⁾		4,60	4,50	4,95	4,60	4,50
Absorbed power ⁽¹⁾	kW	3,15	3,53	2,44	3,15	3,53
SCOP ⁽²⁾		4,72	4,62	4,81	4,72	4,62
η_s ⁽²⁾	%	186	182	189	186	182
Energy class ⁽²⁾ (temperate zone)		A+++	A+++	A+++	A+++	A+++
Nominal capacity ⁽³⁾	kW	14,10	16,00	12,30	14,10	16,00
COP ⁽³⁾		3,60	3,50	3,70	3,60	3,50
Absorbed power ⁽³⁾	kW	3,92	4,57	3,32	3,92	4,57
Nominal capacity ⁽⁴⁾	kW	13,80	16,00	11,90	13,80	16,00
COP ⁽⁴⁾		2,95	2,85	3,05	2,95	2,85
Absorbed power ⁽⁴⁾	kW	4,68	5,61	3,90	4,68	5,61
SCOP ⁽⁵⁾		3,47	3,41	3,45	3,47	3,41
η_s ⁽⁵⁾	%	137	134	136	137	134
Energy class ⁽⁵⁾ (temperate zone)		A++	A++	A++	A++	A++
COOLING PERFORMANCE						
Nominal capacity ⁽⁶⁾	kW	13,50	14,90	12,00	13,50	14,90
EER ⁽⁶⁾		3,60	3,40	3,95	3,60	3,40
Absorbed power ⁽⁶⁾	kW	3,75	4,38	3,04	3,75	4,38
Nominal capacity ⁽⁷⁾	kW	12,40	14,00	11,50	12,40	14,00
EER ⁽⁷⁾		2,50	2,50	2,75	2,50	2,50
Absorbed power ⁽⁷⁾	kW	4,96	5,60	4,18	4,96	5,60
SEER ⁽⁸⁾		4,86	4,69	4,86	4,83	4,67
η_s ⁽⁸⁾	%	191	185	191	190	184
GENERAL						
Electrical power supply	V/ph/Hz	230/1+N/50	230/1+N/50	400/3+N/50	400/3+N/50	400/3+N/50
Sound pressure @1m ⁽⁹⁾	dB(A)	54	58	54	54	58
Sound power ⁽¹⁰⁾	dB(A)	65	68	65	65	68
Compressor		Rotativo DC inverter				
Refrigerant charge R32 -GWP 675	Kg	1,75	1,75	1,75	1,75	1,75
Empty weight	Kg	144	144	160	160	160
HYDRAULIC CIRCUIT						
Expansion reservoir capacity	litri	8	8	8	8	8
Minimum operating pressure	bar	3	3	3	3	3
Water connection diameter	BSP GAS	5/4"	5/4"	5/4"	5/4"	5/4"

(1) Outdoor air d.b. + 7 °C / w.b. + 6 °C, water 30 °C - 35 °C.

(2) Value referred to the Average climate profile for delivery temperature of 35 °C. Values in accordance with Regulation 811/2013.

(3) Outdoor air d.b. + 7 °C / w.b. + 6 °C, water 40 °C - 45 °C.

(4) Outdoor air d.b. + 7 °C / w.b. + 6 °C, water 47 °C - 55 °C.

(5) Value referred to the Average climate profile for delivery temperature of 55 °C. Values in accordance with Regulation 811/2013.

(6) Outdoor air d.b. + 35 °C/w.b. + 24 °C, water 23 °C - 18 °C.

(7) Outdoor air d.b. + 35 °C/w.b. + 24 °C, water 12 °C - 7 °C.

(8) Value referred to the Average climate profile for delivery temperature of 7 °C. Values in accordance with Regulation 2281/2016.

(9) Measured at a distance of 1m in front of the unit and (1+unit height)/2m above the floor in a semi-anechoic chamber.

(10) Declared sound emission values, in compliance with the EN 12102-1 Standard.

Trading Address:

Via Risorgimento, 23/A
23900 LECCO (LC) Italy
Tel. +39 0341 277111
Fax +39 0341 277263
www.berettaheating.com

In order to improve its products, Beretta reserves the right to modify the characteristics and information contained in this catalogue at any time and without prior notice. This catalogue, therefore, cannot be considered as contractually binding on third parties.