

Heat pumps - Cooling and heating mode

# PAC BT LOW TEMPERATURE MONOBLOC HEAT PUMP



**COP up to 4.72**

**EER up to 4.55**



## + PRODUCTS

- Cooling and heating mode.
- No refrigerant handling.
- Energy efficiency: 178,3% (ηs).



(included)

## FEATURES



DC INVERTER



R410A FLUID



WEEK TIMER



COOLING MODE OPERATIONAL UP TO 46°C OUTDOORS



HEATING MODE OPERATIONAL DOWN TO -20°C OUTDOORS



HIGH TEMPERATURE UP TO 60°C



FLOOR HEATING



HIGH-TEMPERATURE RADIATOR



LOW-TEMPERATURE RADIATOR



BOILER BACKUP



ULTRA QUIET



WATER PROGRAMS



DOMESTIC HOT WATER

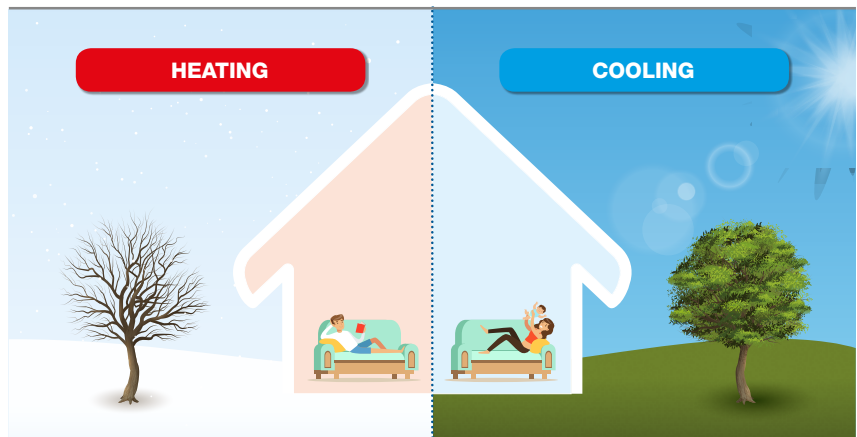


PAC BT 5-7-9 kW



PAC BT 10-12-14-16 kW

- Compatible with several transmitters: heated floors, radiators, fan-convectors...
- “Plug & Play” solution to replace old monobloc heat pumps.
- Compact solution: small footprint.
- Safety features included (safety valve, expansion tank).
- High performance: COP up to 4.72 and EER up to 4.55.
- Auxiliary heat resistance included (depends on model - not included on sizes 5, 7 and 9).
- Large control screen integrated on the product (status, diagnosis...).
- Durability: high protection treatment on electronic cards.



### PAC BT MONOBLOC TECHNICAL DATA - SINGLE PHASE

Models			AWHW-PAC-BT-MB-5KW-H11	AWHW-PAC-BT-MB-7KW-H11	AWHW-PAC-BT-MB-9KW-H11	AWHW-PAC-BT-MB-10KW-H11	AWHW-PAC-BT-MB-12KW-H11	AWHW-PAC-BT-MB-14KW-H11	AWHW-PAC-BT-MB-16KW-H11	
Code 1~230V-50Hz			7HP061015	7HP061016	7HP061017	7HP061018	7HP061019	7HP061020	7HP061021	
Phases			Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase	
<b>HEATING MODE</b>										
Air+7°C Water 30/35°C	Heating capacity	kW	4.58	6.55	8.64	10.43	12.17	14.76	16.33	
	Power input	kW	0.97	1.45	2.01	2.28	2.73	3.40	3.90	
	<b>COP</b>		<b>4.72</b>	<b>4.52</b>	<b>4.30</b>	<b>4.57</b>	<b>4.46</b>	<b>4.34</b>	<b>4.19</b>	
Air+7°C Water 40/45°C	Heating capacity	kW	4.67	6.69	9.19	10.17	12.58	14.08	16.12	
	Power input	kW	1.43	2.05	2.63	3.08	3.86	4.47	5.22	
	COP		3.27	3.26	3.49	3.30	3.26	3.15	3.09	
Air+7°C Water 47/55°C	Heating capacity	kW	4.76	6.24	9.35	8.89	10.55	11.64	13.43	
	Power input	kW	1.88	2.39	3.28	3.38	3.84	4.38	5.22	
	COP		2.53	2.61	2.85	2.63	2.75	2.66	2.57	
Air-7°C Water 30/35°C	Heating capacity	kW	3.80	5.00	6.20	7.90	9.50	11.10	12.30	
	Power input	kW	1.40	2.00	2.60	3.20	3.80	4.40	5.00	
	<b>COP</b>		<b>2.63</b>	<b>2.49</b>	<b>2.39</b>	<b>2.50</b>	<b>2.50</b>	<b>2.54</b>	<b>2.46</b>	
<b>COOLING MODE</b>										
Air 35°C Water indoor 12°C / outdoor +7°C	Cooling capacity	kW	4.55	6.71	8.06	10.44	12.21	12.95	13.72	
	Power input	kW	1.55	2.57	3.51	3.28	4.17	4.53	5.16	
	EER		2.94	2.61	2.30	3.18	2.93	2.86	2.66	
Air 35°C Water indoor 23°C / outdoor 18°C	Cooling capacity	kW	4.55	6.45	8.35	10.25	12.19	14.61	14.82	
	Power input	kW	1.00	1.47	2.10	2.06	2.65	3.32	3.66	
	EER		4.55	4.40	3.97	4.98	4.60	4.40	4.05	
<b>PERFORMANCE</b>										
Energy label	Water outlet to 35°C	ηs/class	175.9%/A++	178.3%/A++	163.3%/A++	161.7%/A++	165.6%/A++	172.7%/A++	167.5%/A++	
	Water outlet to 55°C	ηs/class	125.7%/A++	125.7%/A++	127.1%/A++	129.3%/A++	129.3%/A++	128.5%/A++	125.1%/A++	
SCOP (average climate)	Water outlet to 35°C		4.47	4.53	4.16	4.12	4.21	4.39	4.26	
	Water outlet to 55°C		3.22	3.22	3.25	3.31	3.31	3.29	3.20	
SEER (average climate)	Water outlet to +7°C		4.61	4.75	4.52	5.24	5.34	4.86	4.34	
	Water outlet to 18°C		5.90	5.74	5.69	6.22	6.64	6.18	5.88	
Sound level	Heating/Cooling	dB(A)	61/64	65/66	68/67	66/64	67/67	71/70	71/70	
			<b>Cooling mode</b>			<b>Heating mode</b>			<b>DHW mode</b>	
Operating limits	°C		-5/46			-20/35			-20/43	
Water outlet operating limits	°C		5/25			25/60			40/60	
<b>POWER SUPPLY</b>										
Electric backup heater	Built-in standard	kW	-	-	-	3	3	3	3	
	Optional	kW	3	3	3	4.5	4.5	4.5	4.5	
	Number of stages		1	1	1	2	2	2	2	
Power supply	V/Ph/Hz		220-240/1/50							
Fuse rating	A		25	25	25	40	40	40	40	
<b>INSTALLATION &amp; OTHERS</b>										
Air flow	m³/h		3050	3050	3050	6150	6150	6150	6150	
Refrigerant	Type/GWP	kg	R410A/2088							
	Charge	kg	2,4	2,4	2,4	3,6	3,6	3,6	3,6	
Outline dimensions (WxHxD)	mm		1210x945x402				1404x1414x405			
Package dimensions (WxHxD)	mm		1500x1140x450				1475x1580x440			
Net weight/Gross weight	kg		99/117				162/183			
Water connection	inches		1" Female BSP				1-1/4" Female BSP			
Rated water flow	m³/h		0.857	1.200	1.540	1.714	2.060	2.400	2.740	
Minimum water flow	m³/h		0.686	0.960	1.232	1.371	1.648	1.920	2.192	
Maximum water flow	m³/h		1.028	1.440	1.848	2.057	2.472	2.880	3.288	






Data according to EN 14511:2013.


## PAC BT MONOBLOC TECHNICAL DATA - THREE PHASE

Models			AWHW-PAC-BT-MB-12KW-H13	AWHW-PAC-BT-MB-14KW-H13	AWHW-PAC-BT-MB-16KW-H13
Code 3-400V-50Hz			7HP061022	7HP061023	7HP061024
Phases			Three phase	Three phase	Three phase
<b>HEATING MODE</b>					
Air +7°C Water 30/35°C	Heating capacity	kW	12.37	14.10	16.30
	Power input	kW	2.76	3.26	3.88
	<b>COP</b>		<b>4.48</b>	<b>4.33</b>	<b>4.20</b>
Air +7°C Water 40/45°C	Heating capacity	kW	12.02	14.11	16.06
	Power input	kW	3.72	4.46	5.23
	COP		3.23	3.16	3.07
Air +7°C Water 47/55°C	Heating capacity	kW	12.51	14.41	16.15
	Power input	kW	4.43	5.16	5.86
	COP		2.82	2.79	2.76
Air -7°C Water 30/35°C	Heating capacity	kW	10.1	11.7	13
	Power input	kW	3.9	4.4	5.1
	<b>COP</b>		<b>2.61</b>	<b>2.65</b>	<b>2.57</b>
<b>COOLING MODE</b>					
Air 35°C Water indoor 12°C / outdoor +7°C	Cooling capacity	kW	12.58	13.80	15.26
	Power input	kW	4.32	5.14	6.41
	EER		2.91	2.68	2.38
Air 35°C Water indoor 23°C / outdoor 18°C	Cooling capacity	kW	12.64	14.03	15.10
	Power input	kW	2.75	3.26	3.78
	EER		4.60	4.30	4.00
<b>PERFORMANCE</b>					
Energy label	Water outlet to 35°C	η <sub>s</sub> class	174.9%/A++	167.9%/A++	163.6%/A++
	Water outlet to 55°C	η <sub>s</sub> class	130.9%/A++	127.9%/A++	125.6%/A++
SCOP (average climate)	Water outlet to 35°C		4.45	4.27	4.17
	Water outlet to 55°C		3.35	3.27	3.22
SEER (average climate)	Water outlet to +7°C		5.02	4.88	4.92
	Water outlet to 18°C		5.78	5.72	5.87
Sound level	Heating/Cooling	dB(A)	68/69	71/70	71/71
			<b>Cooling mode</b>	<b>Heating mode</b>	<b>DHW mode</b>
Operating limits		°C	-5/46	-20/35	-20/35
Water outlet operating limits		°C	5/25	25/60	40/60
<b>POWER SUPPLY</b>					
Electric backup heater	Built-in standard	kW	4.5	4.5	4.5
	Number of stages		1	1	1
Power supply		V/Ph/Hz	380-415/3/50		
Fuse rating		A	20	20	20
<b>INSTALLATION &amp; OTHERS</b>					
Air flow		m³/h	6150	6150	6150
Refrigerant	Type/GWP		R410A/2088		
	Charge	kg	3.6	3.6	3.6
Outline dimensions (WxHxD)		mm	1404x1414x405		
Package dimensions (WxHxD)		mm	1475x1580x440		
Net weight/Gross weight		kg	177/198		
Water connection		inches	1-1/4" Female BSP		
Rated water flow		m³/h	2.060	2.400	2.740
Minimum water flow		m³/h	1.648	1.920	2.192
Maximum water flow		m³/h	2.472	2.880	3.288




Data according to EN 14511:2013.

### ALL HEAT PUMPS ACCESSORIES

PART NUMBER	NAME	FUNCTION
(included)	<b>Y-shape filter</b> 	Protect the heat pump from sludging and preserve optimum thermal exchange.
7ACFH0663	<b>Buffer tank 140 L</b>	It protects the heat pump against short cycles that can reduce the useful life of the compressors and improves operation during defrosting phases.
 7ACFH0666	<b>Settling filter (pot)</b> 	Protect the heat pump from sludging and preserve optimum thermal exchange.
 7ACTL0510	<b>Floor support rubber recycled (pair)</b>  Length: 1 000 mm	Necessary for a professional installation.

 Mandatory accessory.

### PAC BT MB ACCESSORIES

PART NUMBER	NAME	FUNCTION
 (included)	<b>User interface kit (digital remote controller)</b>	<ul style="list-style-type: none"> <li>- ON/OFF unit, outside heat source.</li> <li>- Operation mode setting: cooling/heating/auto.</li> <li>- DHW setting: fast DHW / holiday / disinfect. / DHW pump setting.</li> <li>- Temperature setting: water outlet temperature, room temperature.</li> <li>- Time setting: 12h/24.</li> <li>- Timer ON/OFF setting, day/weekly.</li> <li>- Display space heating/cooling set temperature, water tank temperature.</li> <li>- Display components status.</li> <li>- Query, malfunction code, parameter.</li> <li>- Test mode setting.</li> </ul>
(included)	<b>Thermistor for domestic hot water tank</b>	DHW temperature control.
 7ACFH0662	<b>300 L domestic hot water tank kit</b>	Optimised with the operation of the heat pump: <ul style="list-style-type: none"> <li>- Programmable anti-legionella function.</li> <li>- Management of the three-way valve / circulator pump couple.</li> <li>- 3.1 m<sup>2</sup> exchange surface.</li> </ul>
 7ACFH0822	<b>On-line electric heater - 3 kW</b>	It provides extra heating when the heating demand is greater than the capacity of the heat pump. It is matching only with sizes 5, 7 and 9.