

WWBG-0350-0700

Water-water heat pumps only

Heating capacity 249,400 ÷ 441,596 MBtu/h

- Optimised to produce high temperature hot water
- Can be used with any air or water cooled heat pump
- Max. processed water temperature: 176 °F
- Max inlet temperature on source side: 113 °F



DESCRIPTION

WWBG-0350-0700 is a range of irreversible water-water heat pumps that produce high temperature water with a low or medium temperature source. Internal unit suitable for use in centralised residential systems, in systems that serve hotels and other forms of accommodation, and for applications in the tertiary and industrial sectors.

VERSIONS

L Silenced

FEATURES

Maximum energy efficiency

Aermec, which has focused for years on energy efficiency, designed the WWBG units with the aim of guaranteeing high efficiency both with full and partial loads.

Operating field

With its wide operating range, it can be integrated with numerous applications and is a valid alternative to boilers and all conventional systems used to produce high temperature hot water since it also uses existing systems. Production of hot water up to 176 °F (Max inlet temperature on source side 113 °F).

Constructional characteristics of unit

- Optimised plate heat exchangers with low pressure drops.
- 2 cooling circuits, 1 compressor per circuit.
- Scroll compressors for high condensing temperatures.
- Compact size for easier installation.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

R513A (XP10) refrigerant gas

Thanks to the R513A (XP10) refrigerant, the environmental impact of the units is significantly reduced.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO₂ values.

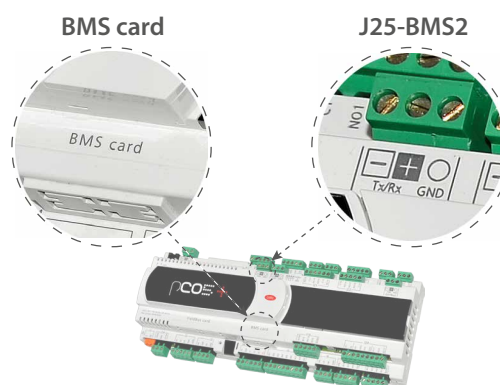
CONTROL

Control unit accessible externally with touch-screen user interface, multilingual display of all operating parameters.

Optimised control logic for use with low and medium temperature heat pumps.

Complies with safety (EC) and electromagnetic compatibility directives.

Removable slide-out electrical panel with opening side (LH/RH side) configurator option



"BMS card" and "J25-BMS2" are two ports on the unit's control board.

- An 'EASYLOG' diagnostic device is present in port 'J25-BMS2', possibly disconnect it to connect the accessory AERNET.

In the 'BMS card' port, the compatible accessories are:

- AER485P1
- AERBACP
- MULTICHILLER-EVO + AER485P1
- PR4 + AER485P1

In the 'J25-BMS2' port, the compatible accessories are:

- AERNET

■ **Note:**

— For other requirements, please contact the company.

ACCESSORIES

AER485P1: RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

AERBACP: Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save

a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER-EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

VT: Anti-vibration supports.

PR4: Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ACCESSORIES COMPATIBILITY

Model	Ver	0350	0550	0600	0700
AER485P1	L	•	•	•	•
AERBACP	L	•	•	•	•
AERNET	L	•	•	•	•
MULTICHILLER-EVO	L	•	•	•	•
PGD1	L	•	•	•	•

MULTICHILLER_EVO: Contact the factory for compatibility of the accessory with the type of implant envisaged.

Antivibration

Ver	0350	0550	0600	0700
L	VT9	VT9	VT9	VT9

PR4

Model	Ver	0350	0550	0600	0700
PR4	L	•	•	•	•

Power factor correction

Ver	0350	0550	0600	0700
L	RIF (1)	RIF (1)	RIF (1)	RIF (1)

(1) Contact the factory

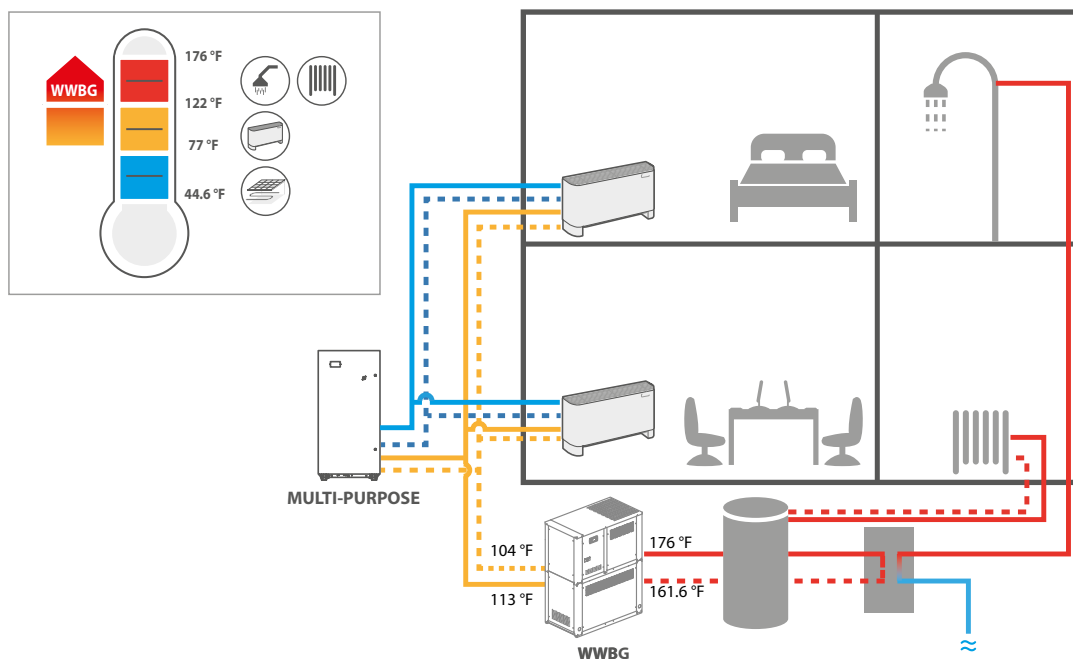
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3,4	WWBG
5,6,7,8	Size 0350, 0550, 0600, 0700
9	Operating field (1)
X	Standard
10	Model
H	Heat pump
11	Version
L	Silenced
12	Power supply
7	460V ~ 3 60Hz
13	Electrical panel version
R	Reverse opening (RH)
°	Standard opening (LH)

(1) Evaporator water up to 41 °F

Example of four-pipe system



PERFORMANCE SPECIFICATIONS

Size		0350	0550	0600	0700
Heating performances (Water user side 158.0 °F / 172.4 °F; Water source side 113.0 °F / 104.0 °F) (1)					
Heating capacity	BTU/h	309,140	360,066	470,415	547,464
Input power	kW	23.20	26.10	33.60	40.40
COP	kW/kW	3.91	4.04	4.10	3.97
Water flow rate system side	gpm	43.9	51.1	66.8	77.7
Pressure drop system side	ftH ₂ O	10.04	6.02	10.37	6.02
Water flow rate source side	gpm	51.80	61.02	80.06	92.23
Pressure drop source side	ftH ₂ O	3.01	4.01	2.34	3.01
Heating performances (Water user side 158.0 °F / 172.4 °F; Water source side 95.0 °F / 86.0 °F) (2)					
Heating capacity	BTU/h	249,400	290,438	379,447	441,596
Input power	kW	22.77	25.62	32.98	39.66
COP	kW/kW	3.21	3.32	3.37	3.26
Water flow rate system side	gpm	35.4	41.2	53.9	62.7
Pressure drop system side	ftH ₂ O	6.36	4.01	6.69	4.01
Water flow rate source side	gpm	38.60	45.62	59.93	68.82
Pressure drop source side	ftH ₂ O	1.67	2.34	1.34	1.67

(1) User side water 158.0 °F / 172.4 °F; Source side water 113.0 °F / 104.0 °F
 (2) User side water 158.0 °F / 172.4 °F; Source side water 95.0 °F / 86.0 °F

ELECTRIC DATA

Size		0350	0550	0600	0700
Electric data					
Peak current (LRA)	A	136.0	150.0	183.0	218.0
Minimum circuit amperage (MCA)	A	50.0	60.0	75.0	90.0
Maximum overcurrent permitted by the protection device (MOP)	A	60.0	75.0	100.0	110.0

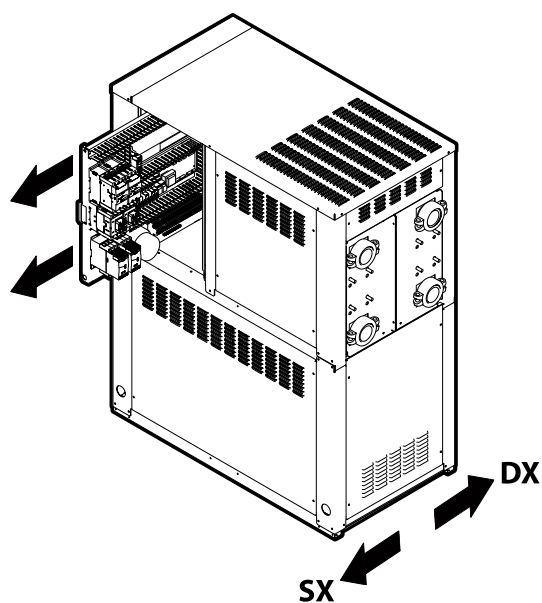
GENERAL TECHNICAL DATA

Size		0350	0550	0600	0700
Compressor					
Type	type			Scroll	
Compressor regulation	Type			On-Off	
Number	no.	2	2	2	2
Circuits	no.	2	2	2	2
Refrigerant	type			R513A	
Refrigerant load circuit 1 (1)	lbs	7.7	9.9	13.2	16.5
Refrigerant load circuit 2 (1)	lbs	7.7	9.9	13.2	16.5
Source side heat exchanger					
Type	type			Brazen plate	
Number	no.	1	1	1	1
Connections (in/out)	Type			Grooved joints	
Sizes (in/out)	Ø	2"	2"	2" 1/2	2" 1/2
System side heat exchanger					
Type	type			Brazen plate	
Number	no.	1	1	1	1
Connections (in/out)	Type			Grooved joints	
Sizes (in/out)	Ø	2"	2"	2" 1/2	2" 1/2
Sound data calculated in heating mode (2)					
Sound power level	dB(A)	77,8	77,3	78,6	79,3

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

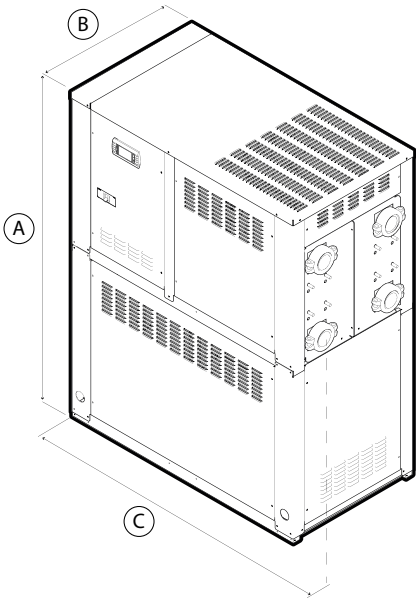
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2. Sound pressure (cold functioning) measured in free field, 10 m / 33 ft away from the unit external surface (in compliance with UNI EN ISO 3744).

Removal of electrical panel



Electrical panel version	Configurator option
Sx - LH side	° (Standard)
Dx - RH side	R

DIMENSIONS



Size		0350	0550	0600	0700
Dimensions and weights					
A	in	65.0	65.0	65.0	65.0
B	in	28.0	28.0	28.0	28.0
C	in	51.2	51.2	51.2	51.2
Weights					
Weight empty + packaging	lbs	970	1,003	1,102	1,576
Weight functioning	lbs	970	1,014	1,124	1,609

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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