



BOSCH

Hot Water & Heating

Compress 3000 AW

The economical air to water heatpump, combining efficiency with flexibility



Split air water heat pump
Compress 3000 AW is a highly
efficient heating solution



Having warm homes and hot water when we want has always been regarded as a basic requirement for Australian households. The technology for delivering these comforts has come a long way over the years, with the focus now very much on energy efficiency and reduced running costs.

Until recently, energy sources for heating and hot water in the home have been limited mainly to non-renewable resources such as coal and gas. Unfortunately, once these resources run out, they cannot be replaced.

Today there is a range of renewable energy options – clean, green resources that won't run out and have minimal impact on the environment.

Generating your own renewable energy, known as microgeneration, has a number of benefits including saving you money by reducing your fuel bills, and reduced reliance on fossil fuels. Using a green energy source means a lower impact on the environment, and a reduce carbon footprint.

How it works

Bosch heat pumps use a refrigerant circuit to take the latent heat from the outside air, convert it into heat, and use that heat energy in hydronic and hot water systems. By transferring the heat to water, the heat pump can be connected to a hydronic heating system, and provide hot water at the same time. With a maximum outgoing hot water temperature of 55°C, the Bosch heat pump is ideally suited for low temperature heating systems ie underfloor or special heat pump radiators.

The Bosch air-to-water heat pumps extract energy from outside air in temperatures down to -20°C, so they are ideal for providing low cost home heating throughout the year.

The Bosch air-to-water heat pump comes with a comprehensive 2 year* warranty.

Features at a glance

- ▶ Energy efficient - efficiency of up to 400% with CoP of up to 4
- ▶ Integrated, intelligent heat pump controller HPC400 as standard
- ▶ Maximum 55°C outgoing temperature
- ▶ Works down to outdoor temperatures of -20°C
- ▶ Suitable for use with underfloor heating and appropriately sized radiators
- ▶ Easy to install and maintain
- ▶ Soft start compressor
- ▶ Low noise
- ▶ Designed for connection to all types of hydronic heating systems
- ▶ Comprehensive 2 year* warranty



* Terms & Conditions apply



Performance

Bosch heat pumps feature a highly efficient and effective scroll-type compressor which allows 55°C flow temperature from the appliance. This higher output temperature allows Bosch heat pumps to be effectively combined with radiators which should be typically oversized. However, wherever possible, an underfloor heating system is recommended as the most compatible heat emitter system. The scroll compressor allows Bosch heat pumps to offer excellent COP ratings.

Co-efficient of Performance

The performance and efficiency of an air source heat pump system is commonly measured by the Co-efficient of Performance (COP). The COP is a simple calculation which works out how much energy the heat pump is able to extract from the energy source compared to the amount of electrical energy used by heat pump.

COP =
$$\frac{\text{Heat output of system (useful heat)}}{\text{Electrical input from compressor and circulating pumps}}$$

E.g.:
COP of 3.3 =
$$\frac{9\text{kW output}}{2.7\text{kW of electrical input}}$$

Product	Efficiency Comparison
Air to Water Heat Pump	Up to 400%
Solar thermal	Up to 100%
Condensing Boiler	Up to 96%
Standard eff Boiler	Up to 79%
Electric	Up to 100%

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Technical Data - Outdoor Unit

	Unit	Split 8	Split 15s
Operation, air/water			
Rated output with A7/W35 ¹ Heating ²	kW	9	15
Input power at A2/W35 ¹	kW	1.4	2.5
COP with A7/W35 ¹ Heating ³		4.80	4.56
Rated output with A35/W18 Cooling	kW	8	15
EER with A35/W18 Cooling	kW	3.3	3.3
Max. power input for A7/W35	kW	2.25	3.75
Electrical data			
Main power supply		230V, 1NAC 50Hz	
Recommended automatic circuit breaker ⁴	A	16	32
Maximum current ⁵	A	23.9	40.3
Data, refrigeration connection			
Connection type		Flare connection 3/8" & 5/8"	
Refrigerant type ⁶		R410A	
Refrigerant mass	kg	1.6	2.3
Air and noise data			
Fan motor (DC inverter)	W	124	2 x 124
Nominal air flow rate	l/s	58	55
Sound pressure level at a distance of 1m	dB(A)	52	55
Sound power level ⁷	dB(A)	65	67
General Information			
Compressor oil		FVC68D	
Maximum heating water flow temperature, outdoor unit only	°C	55	
Maximum heating water flow temperature, booster heating only	°C	80	
IP protection class		X4	
Dimensions (W x D x H)	mm	950x330x834	950x330x1380
Weight	kg	60	94

Table 1

Technical Data - Indoor unit with electrical auxiliary heater

Indoor Unit AWES	Unit	AWES 8-15
Electrical Specification		
Power Supply	V	400 ²
Recommended fuse size ³	A	3 x 16 ²
Electric booster heater	kW	2/4/6/9
Heating system		
Connection type (heating flow)		1" male thread
Type of connection (heating return)		1" female thread
Connection type for the heatpump flow (gas)		5/8"
Connection type for the heatpump return (liquid)		3/8"
Maximum operating pressure	kPa/bar	300 / 3.0
Minimum operating pressure	kPa/bar	50/0.5 ⁴
Expansion vessel	ltr	10
Available external pressure		⁵
Minimum flow (while the frosting) ⁶		⁷
Pump type	Grundfos UPM GEO 25-85 PWM	
General information		
IP rating		IPX1
Dimensions (W x D x H) (mm) IDU	mm	485 x 398 x 700
Weight	kg	44

Table 2

- 1N AC 50Hz
- 3N AC 50 Hz
- Fuse characteristic gl/C
- Pressure depending on the pressure in the expansion vessel
- See table 3
- The circulation pump settings and the system design must be configured to achieve nominal flow; in addition, make that there is sufficient volumetric flow during heating, cooling, DHW heating and defrosting.
- See table 3

Flow rate and external pressure for simple heating circuit with DHW installation

Indoor Unit	Capacity of ODU (kW)	Temperature differential across the condenser (K)	Nominal flow rate (l/s)	External static pressure (kPa)
AWES 8-15	8	5	0.43	53
AWES 8-15	15	5	0.72	20

Table 3

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