BAXI

Air source heat pumps

Get comfortable with the bear facts

The way we heat our homes is changing

Heating and hot water accounts for the majority of the energy we use in our homes. And with energy costs rising, it also accounts for a growing proportion of the average household's monthly bills. At the same time, many homeowners are looking for ways to be more environmentally friendly and reduce their carbon footprint.

On top of that, the UK government has set a target of achieving net zero emissions by 2050. As part of this goal, it is encouraging homeowners to make the move to more sustainable, low carbon heating solutions for their homes.

We're changing too

With over 150 years' experience in the heating industry, we're experts in the field and we understand the challenges you face. So, we're expanding our range to bring you future-proof solutions that will meet these challenges head on, backed by a service that will help guide you to a carbon-neutral future.

Check out our Baxi Air Source Heat Pump (ASHP) range of products

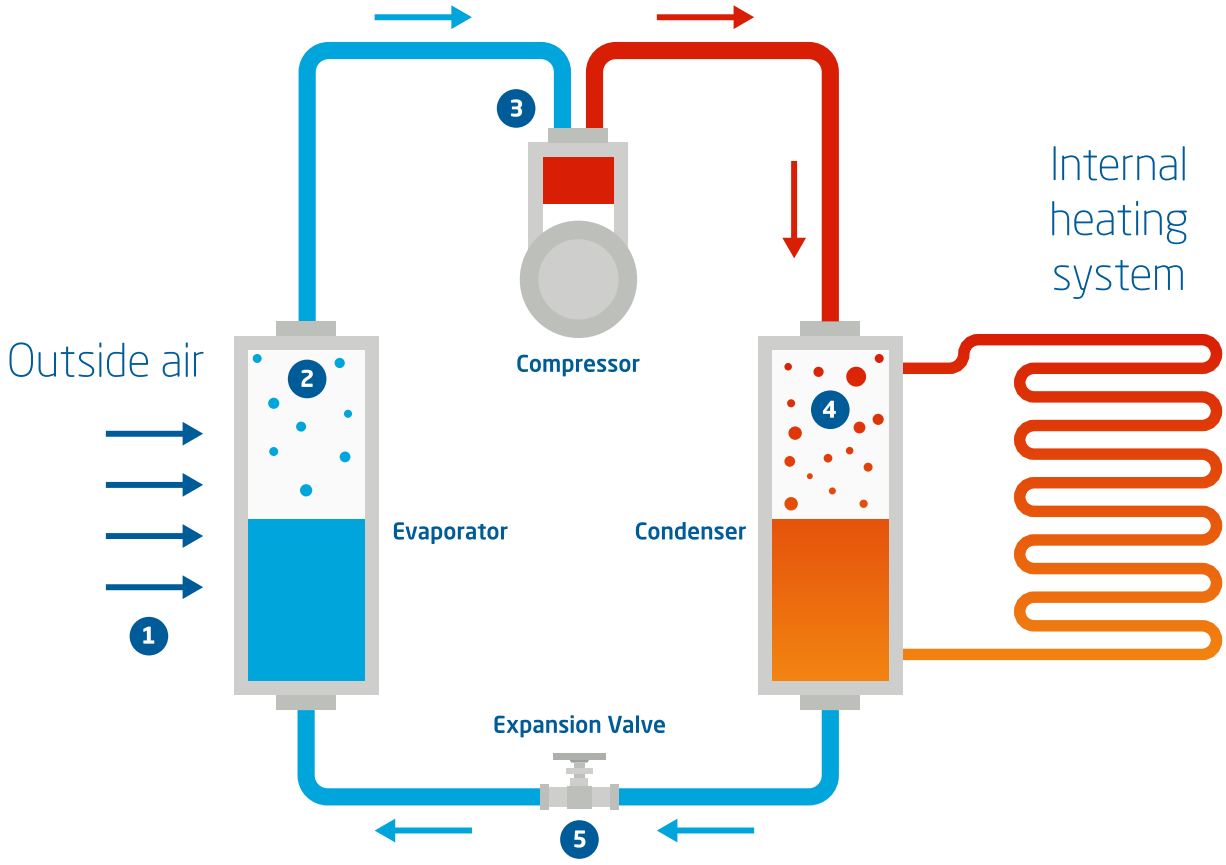
Our ASHPs are available individually or with Baxi ASHP cylinders to offer a complete, packaged solution. Each ASHP system delivers exceptional reliability and performance, and our expert services will help you and your customers get the very best out of our ASHPs for many years to come.

From our training courses, that will help you get comfortable with air source heat pumps to ensure you get maximum efficiency and cost-effectiveness from every ASHP system you install, to enhanced warranty options for your customers, we've got every base covered.

Contents

How our ASHPs work

1. The fan draws in ambient air from the outside, into the evaporator.
2. Liquid refrigerant absorbs the air's heat and evaporates into a vapour, even at low temperatures.
3. This vapour enters the compressor where the pressure and temperature are increased.
4. The heated refrigerant passes through the condenser, transferring heat into the home's heating and hot water system.
5. The refrigerant flow is then controlled by the expansion valve to continue heat pump operation.

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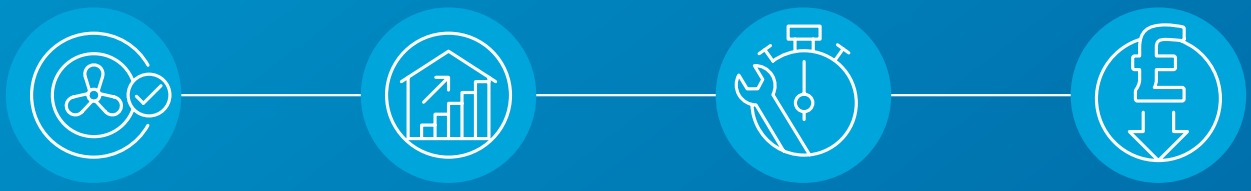
The big benefits of our ASHP solutions



Reliable

- Created by the experts in residential heating and hot water
- Functions at low temperatures
- Up to 65°C flow temperature
- Operation down to -25°C ambient
- Low maintenance
- Service plans and 5 years' enhanced warranty* options for homeowners when commissioned by a Baxi Heat Pump Installer
- Commissioning and servicing carried out by Baxi Engineer or Baxi Heat Pump Installer and always with genuine parts
- Microgeneration Certification Scheme (MCS) certified for quality assurance

Efficient

- Can significantly boost SAP ratings
- Achieves over 300% efficiency at 55°C water temperature
- DC Inverter adjusts output to suit the property's needs
- Bespoke specification design service for accurate ASHP sizing
- SCOP up to 3.37 at 55°C flow temperature

Convenient

- Wide range of outputs from 4-13kW (A-5W45)
- Easy to install and operate
- Monobloc design
- Saves space – single fan design on all models
- No need for added fuel storage
- Compatible with Baxi uSense and uSense 2 smart thermostats, so can be controlled on the move
- Support at every step from a dedicated Area Sales Manager and award-winning customer service team
- Access to a network of approved Baxi Heat Pump Installers

Cost effective

- Long-term cost savings compared to oil boilers and electric storage heating
- Certified product range eligible for up to £6k grant through the Boiler Upgrade Scheme (BUS)

* Terms and conditions apply.

Baxi HP40 Monobloc ASHP

A single self-contained outdoor ASHP unit compatible with our Baxi ASHP Hot Water Cylinder range.

4kW to 13kW outputs

Easy to install

Reduced noise

Can be controlled on the move

Up to 5 years' enhanced warranty*

Key features

In build and installation

- Outputs of 4kW to 13kW
- Easy to install single unit
- Available with an optional back-up heater to maintain comfort levels in very cold weather
- Easily-accessible internal components for servicing and maintenance
- Self-contained R32 refrigerant, giving low Global Warming Potential (GWP)
- Doesn't require a specialist refrigerant engineer to install
- Built in outdoor weather sensor enhances comfort by maintaining the right temperature at all times
- Two door design for easy maintenance access

In operation and performance

- Capable of high heat capacities
- DC Inverter technology gives reliable efficiency
- Excellent Co-efficient of Performance (CoP) figures, in excess of 5:1
- A+++ ERP rating at 35°C flow temperature
- Flexible multi-function controls
- Compatible with Baxi uSense smart thermostats, so can be controlled on the move
- Up to 5 years' enhanced warranty* for extra peace of mind
- Quiet in operation

* Enhanced warranty options subject to T&Cs.

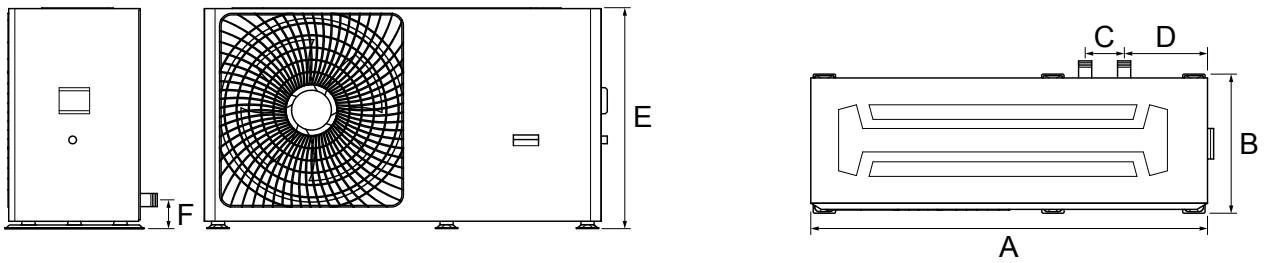

A+++
ENERGY
RATING
energy
saving
trust
endorsed
product
BAXI

Baxi HP40 Monobloc ASHP technical specifications

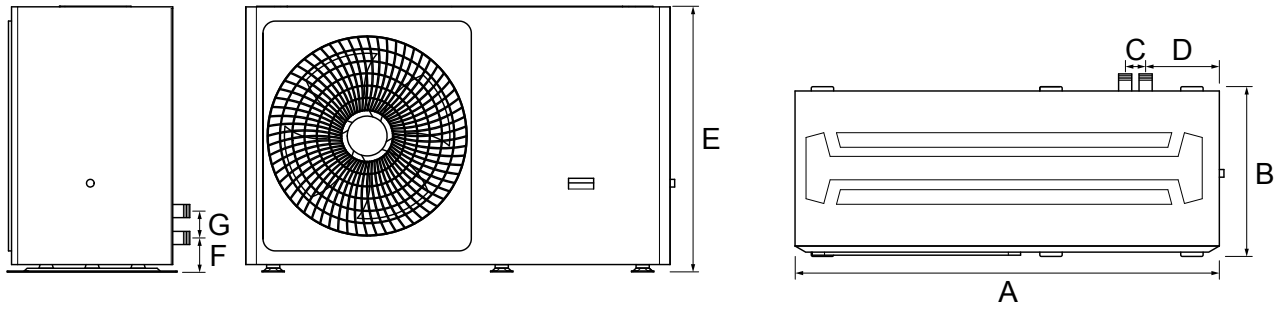
OUTDOOR UNIT	4kW	5kW	7kW	8kW	11kW	13kW	11kWφ	13kWφ
Product code	7830577	7830578	7830579	7830580	7830581	7830582	7830583	7830584
PRODUCT INFORMATION								
Min outdoor temp (°C)	-25	-25	-25	-25	-25	-25	-25	-25
Max outdoor temp (°C)	+35	+35	+35	+35	+35	+35	+35	+35
COP (A7W35)	5.1	4.95	5.15	4.95	4.95	4.6	4.95	4.6
SCOP 35°C	4.66	4.77	5.03	5.03	4.67	4.49	4.67	4.49
Output A-5°C W+35°C	5.02	6.14	7.69	8.8	11.3	14	11.3	14
Output A0°C W+35°C	5.1	6.35	8.49	9.56	12	14.3	12	14.3
Output A+5°C W+35°C	5.68	6.88	9.03	10.1	13.6	16.1	13.6	16.1
SCOP 45°C	3.93	4.06	4.11	4.19	4.01	3.88	4.01	3.88
Output A-5°C W+45°C	4.63	5.84	7.44	8.18	10.9	13.4	10.9	13.4
Output A0°C W+45°C	5.04	6.85	8.09	8.89	12.3	14.1	12.3	14.1
Output A+5°C W+45°C	5.6	6.99	8.69	9.79	13.6	15.9	13.6	15.9
SCOP 55°C	3.19	3.39	3.23	3.37	3.34	3.3	3.34	3.3
Output A-5°C W+55°C	4.41	5.31	6.45	7.53	10.6	12.8	10.6	12.8
Output A0°C W+55°C	5.13	5.42	7.1	8.18	10.8	14.5	10.8	14.5
Output A+5°C W+55°C	5.54	6.11	7.56	9.08	12.8	16.2	12.8	16.2
Sound pressure level (@1m)	45	47.5	48	50.5	53	57.5	53.5	58
Sound power level (EN12102-1)	55	58	59	60	65	68	65	68
ERP @ 35°C	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
ERP @ 35°C	A++	A++	A++	A++	A++	A++	A++	A++
Power supply (φ) / Hz)	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50
MCA	12	14	16	17	25	27	10	12
TOCA	18	18	19	19	30	30	14	14
MFA	25	25	25	25	35	35	16	16
Flow/return connections	G 1"	G 1"	G 1 1/4"	G 1 1/4"	G 1 1/4"	G 1 1/4"	G 1 1/4"	G 1 1/4"
Internal expansion vessel (bar)	8	8	8	8	8	8	8	8
Maximum water pressure (bar)	3	3	3	3	3	3	3	3
Refrigerant	R32	R32	R32	R32	R32	R32	R32	R32
Volume (litres)	1.4	1.4	1.4	1.4	1.75	1.75	1.75	1.75

OUTDOOR UNIT	4kW	5kW	7kW	8kW	11kW	13kW	11kWφ	13kWφ
Product code	7830577	7830578	7830579	7830580	7830581	7830582	7830583	7830584
VOLUMETRICS								
Height (mm)	692	692	845	845	845	845	845	845
Width (mm)	1295	1295	1385	1385	1385	1385	1385	1385
Depth (mm)	429	429	526	526	526	526	526	526
Weight (kg Net)	86	86	105	105	129	129	144	144
Weight (kg Gross)	107	107	132	132	155	155	172	172

4/5kW OUTDOOR UNIT DIMENSIONS



7/8/11/13kW OUTDOOR UNIT DIMENSIONS

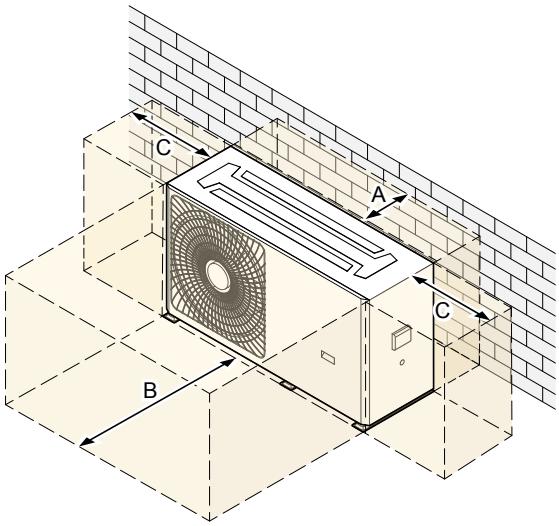


Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
4/5kW	1295	429	105	225	692	161	/
7/8/11/13kW	1385	526	60	221	845	182	81

Baxi HP40 Monobloc ASHP technical specifications

SITING THE UNIT

In normal condition, refer to the figures below for installation of the unit:

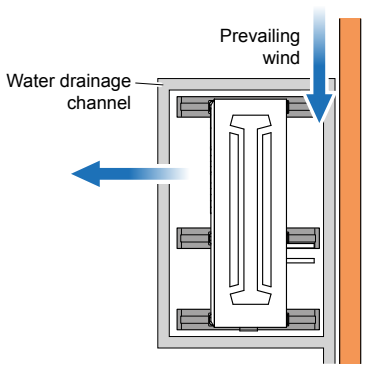


In case of strong wind towards the heat pump, the orientation can be reversed. Turn the air outlet side towards the building, fence or screen.

Model	**A** (mm)	**B** (mm)	**C** (mm)
4/5kW	>300	>1000	500
7/8/11/13kW	>300	>1500	500

Make sure there is enough room to do the installation.

Set the outlet side at a right angle to the direction of the wind.



- Prepare a water drainage channel around the foundation, to drain waste water from around the unit.
- If water does not easily drain from the unit, mount the unit on a foundation of concrete blocks, etc. (the height of the foundation should be about 100 mm (3.93 in).
- If you install the unit on a frame, please install a waterproof plate (about 100 mm) on the underside of the unit to prevent water from coming in from the low side.
- When installing the unit in a place frequently exposed to snow, pay special attention to elevate the foundation as high as possible.

NOTE:

- Unit is top heavy!
- Do not install on the building frame.

Selecting a location in cold climates

NOTE:

When operating the unit in cold climates, be sure to follow the instructions described below.

- To prevent exposure to wind, install the unit with its suction side facing the wall.
- Never install the unit at a site where the suction side may be exposed directly to wind.
- To prevent exposure to wind, install a baffle plate on the air discharge side of the unit.
- Avoid locations where the unit can be covered by snow. In areas where heavy snow fall is anticipated, special precautions such as raising the installation location or installing a hood on the air intake must be taken to prevent the snow from blocking the air intake or lowing directly against it. This can reduce the airflow and a malfunction may result.

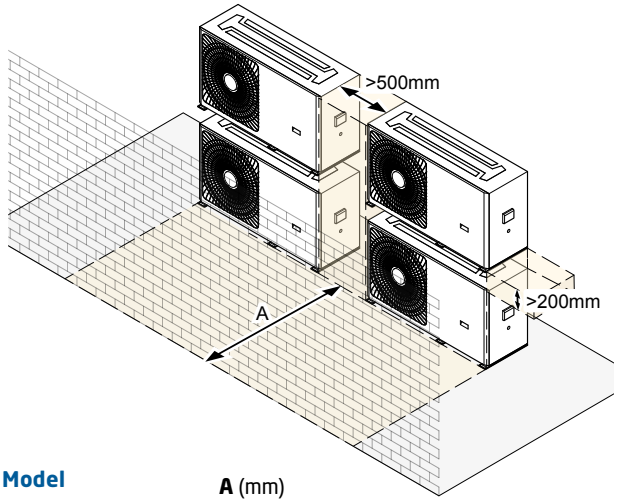
Selecting a location in hot climates

As the outdoor temperature is measured via the outdoor unit air sensor, make sure to install the outdoor unit in the shade or a canopy should be constructed to avoid direct sunlight, so that it is not influenced by the sun's heat. The outdoor air sensor is located at the back of the unit.

CLEARANCE AROUND THE UNIT

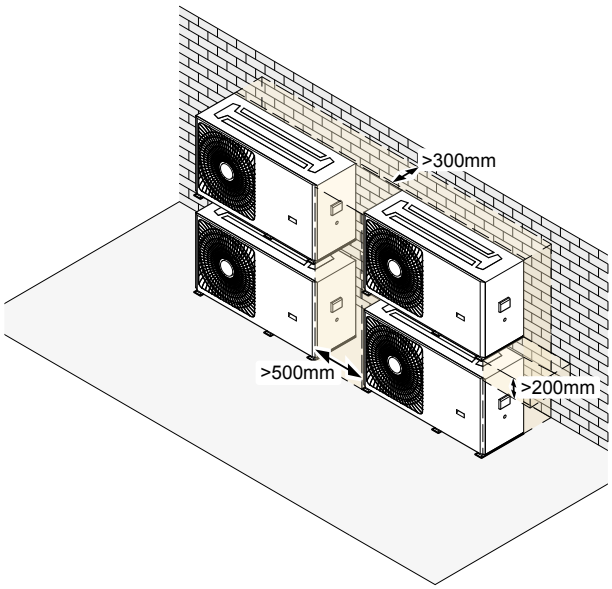
Service space requirements in case of stacked installation

1. In case obstacles exist in front of the outlet side.



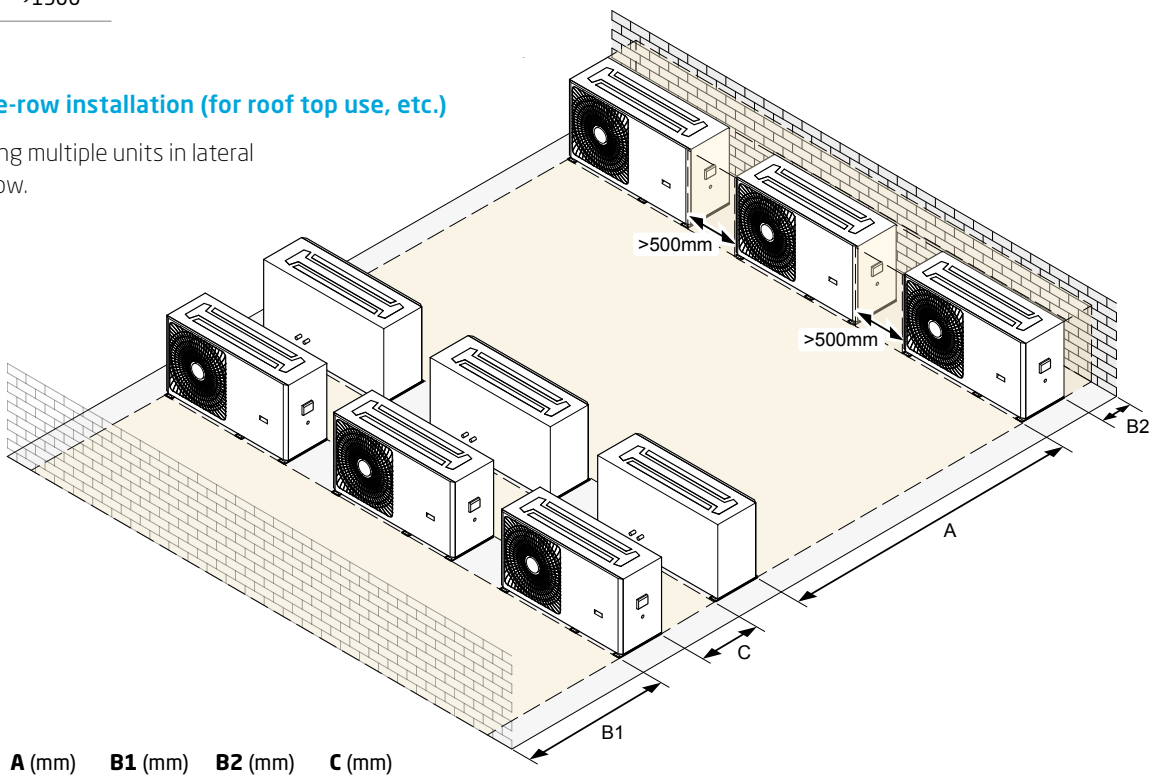
Model	**A** (mm)
4/5kW	>1000
7/8/11/13kW	>1500

2. In case obstacles exist behind the outlet side.



In case of multiple-row installation (for roof top use, etc.)

1. In case of installing multiple units in lateral connection per row.



Model	**A** (mm)	**B1** (mm)	**B2** (mm)	**C** (mm)
4/5kW	>2500	>1000	>300	>600
7/8/11/13kW	>3000	>1500		

Baxi ASHP Cylinder

Designed specifically for Baxi Air Source Heat Pumps, these cylinders deliver exceptional levels of performance.

Corrosion resistant

Easy to install

Rapid heating

10 years' warranty

Key features

In build and installation

- Models available in 210, 250 or 300 litre volumes
- Corrosion-resistant stainless steel build – made by the experts at Megaflo and Heatrae Sadia
- High surface area heat exchanger specifically designed to be used with heat pumps
- Easy to install
- In built back-up immersion heaters to support heat pumps for continuous hot water
- Immersion Heater Relay Kit in box including Immersion Heater Relay, Immersion Heater Relay Box and DHW temperature probe extension

In operation and performance

- In built interdependent boost heater for rapid hot water production
- Low heat loss
- Excellent flow rates
- Delivers up to 76L/min of hot water at 3 bar pressure
- No need for shower pumps or tanks
- Up to 10 years' warranty for extra peace of mind
- Injected foam insulation gives optimum heat retention and energy efficiency

Baxi ASHP Cylinder technical specifications

	210ltr	250ltr	300ltr
Product code	7837416	7837491	7837562
PRODUCT INFORMATION			
Nominal capacity (litres)	210	250	300
Insulation thickness (mm)	60	60	60
Immersion heater rating (1 x 3kW)	1 x 3	1 x 3	1 x 3
Boost immersion heater (1 x 3kW)	1 x 3	1 x 3	1 x 3
Standing heat loss (kWh/year)	547.5	649.7	748.3
Standing heat loss	1.5kW/24h	1.78kW/24h	2.05kW/24h
Max flow @ 3.5 bar (litres per minute)	76	76	76
Max flow @ 1 bar (litres per minute)	45	45	45
Storage volume in litres @ 3 bar	209	246	289
The water heating energy efficiency class of the model	B	C	C
Maximum supply pressure to incoming mains cold water combination valve (supplied)	1.6MPa (16 bar)		
Minimum recommended supply pressure and flow rate	0.15MPa (1.5 bar) - 20 litres per minute		
Operating pressure	0.35MPa (3.5 bar)		
Inner water container	High grade duplex stainless steel pressure tested to 15 bar		
Thermal insulation	CFC/HCFC free, fire retardant expanded polyurethane foam with zero zone depletion. GWP = 3.1		
DHW - expansion relief valve	0.6MPa (6 bar)		
Immersion heater rating (AC supply only)	3kW @ 240V / 2.8kW @ 230V		
Domestic hot water expansion	18L (210L) and 24L (250 & 300L)		
COMPONENTS			
Immersions	Factory fitted immersion heater and thermal controls. Long-life superloy 825 alloy sheathed elements		
Cold water	Cold water inlet control kit comprising of: 0.35MPa (3.5 bar) pressure reducing valve 0.6MPa (6 bar) pressure relief valve 1/4 turn isolating valve, line strainer, non return valve, drain valve		
Safety	Factory fitted temperature and pressure relief valve set at 90°C / 1MPa (10 bar) inc. T&P valve insulation kit, 22mm tundish, additional thermostat and thermal cut out, 18 and 24 litre DHW expansion vessel with brackets		
Electrical	Wiring centre - 28mm 3 port diverter valve		
Immersion Heater Relay Kit	Immersion Heater Relay, Immersion Heater Relay Box and DHW temperature probe extension		
VOLUMETRICS			
Height (mm)	1524	1837	2088
Width (mm)	579	579	579
Depth (mm)	652	652	652
Weight (kg)	60	69	74

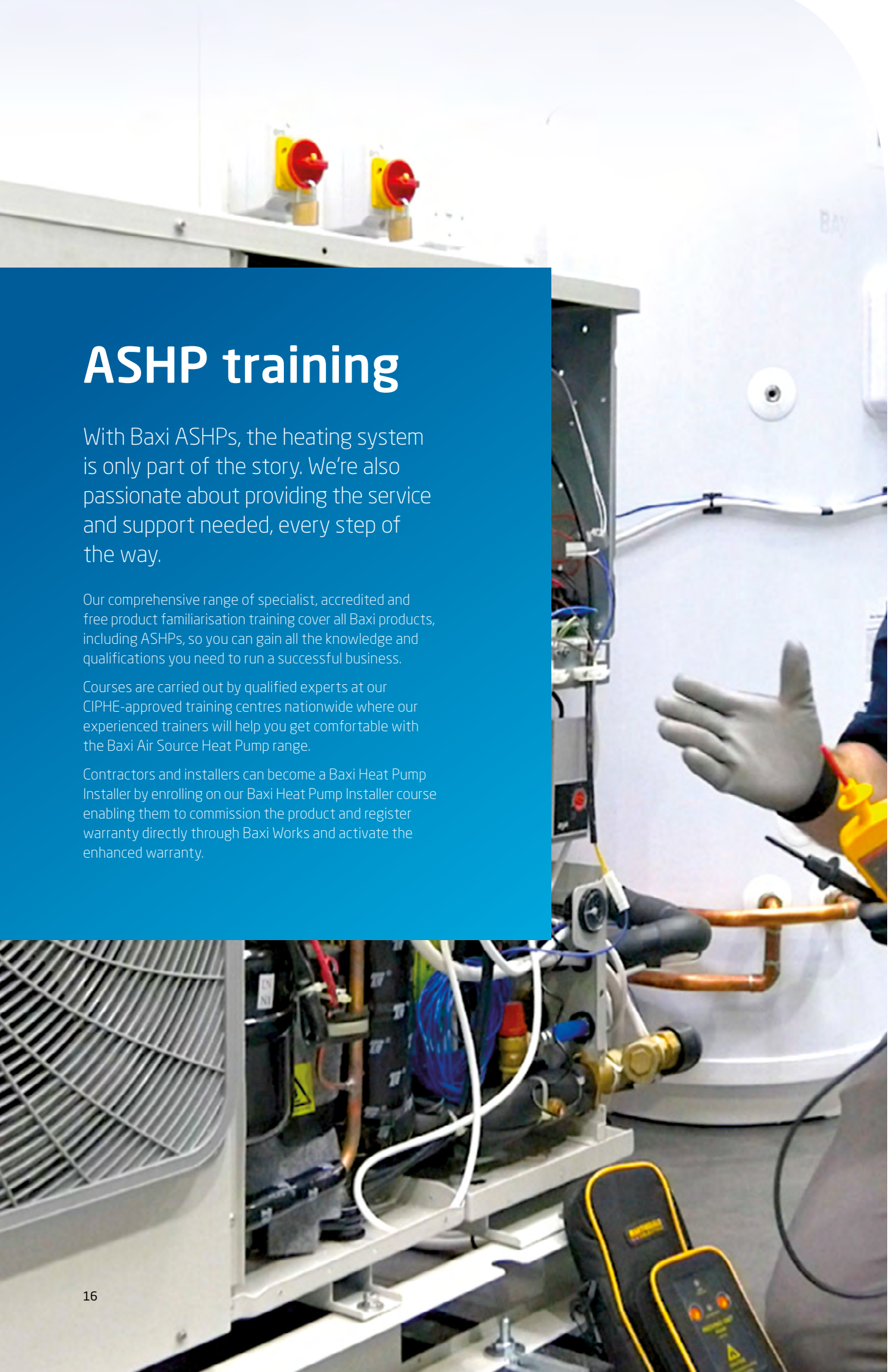
ASHP training

With Baxi ASHPs, the heating system is only part of the story. We're also passionate about providing the service and support needed, every step of the way.

Our comprehensive range of specialist, accredited and free product familiarisation training cover all Baxi products, including ASHPs, so you can gain all the knowledge and qualifications you need to run a successful business.

Courses are carried out by qualified experts at our CIPHE-approved training centres nationwide where our experienced trainers will help you get comfortable with the Baxi Air Source Heat Pump range.

Contractors and installers can become a Baxi Heat Pump Installer by enrolling on our Baxi Heat Pump Installer course enabling them to commission the product and register warranty directly through Baxi Works and activate the enhanced warranty.



Product Day Training

This one day course provides hands-on experience in real world situations with the latest range of live Baxi boilers and ensure you stay compliant with the latest information on new products including ASHPs and legislation updates.

Air Source Heat Pump Product Day

This one day course is for anyone wanting to know more about our range of heat pumps, the day will cover how a heat pump works, our product range and some installation considerations.

BPEC Accredited Training

This three day course is designed to give installers the skills and knowledge required to correctly install heat pumps and has been developed with the intention of meeting the requirement of the National Occupational Standards and industry working groups.

The course provides a nationally recognised qualification that can be used to gain entry to the Microgeneration Certification Scheme (MCS).

Delegates will be sent a home study pack that needs to be completed prior to attending the course. During the hands-on session individuals will learn the principles of design, installation, commissioning, and servicing of air source heat pump systems. This is followed by a formal assessment.

Baxi Heat Pump Installer Training

The course is for delegates who are MCS or have a recognised heat pump qualification. It will provide in depth knowledge and practical skills through 3 one day modules:

- **Module 1 - Design and application:**
  Understand how good design can deliver the best outcome and different applications to suite your customer's needs (1 day)
- **Module 2 - Installation:**
  Learn all about Baxi heat pumps, installation requirements and how to set the system up for the best results (1 day)
- **Module 3 - Commissioning:**
  Covering commissioning and fault-finding, you will really get to understand our products (1 day)

Delegates will also learn about the different types of heat pumps available and their applications in various settings. On the completion of the course installers will be able to book a supervised commissioning visit to sign-off their first installation.

Becoming a Baxi Heat Pump Installer

As a Baxi Heat Pump Installer, customers are assured of a reliable standard of design, installation, commissioning and servicing of our range of Baxi Air Source Heat Pumps. By becoming a Baxi Heat Pump Installer:

- You will become comfortable with designing, installing, commissioning and servicing our ASHP range
- Directly commission Baxi ASHP products and provide your customers with the enhanced warranty
- Register your product and earn points for rewards on Baxi Works – sign up at **baxiworks.co.uk**

To become a Baxi Heat Pump Installer visit **baxi.co.uk/hpinstaller**

For more information about our training courses register your interest at baxi.co.uk/training or speak to your Area Sales Manager.

BAXI Works

Join the installer loyalty scheme that really

WORKS FOR YOU

- Earn reward points for eligible product registrations
- Access the Baxi Toolbelt App for Gas Safe registered installers
- Book ASHP commissioning visits
- Get priority engineer call-outs
- Receive automated service reminders and expert advice
- Appear on the Baxi Find an Installer listing
- Enjoy the premium benefits of being a Baxi Approved Installer, when you register at least 20 eligible products a year

Sign up today

baxiworks.co.uk

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Residential heating and hot water solutions

BAXI

Get in touch

Call: 0344 871 1525
Email: info@baxi.co.uk
Visit: baxi.co.uk

baxi.co.uk/trade/terms-and-conditions

Follow us:

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Baxi Heating UK Limited is registered in England and Wales with company number 03879156 and registered office address Brooks House, Coventry Road, Warwick, CV34 4LL. VAT registration number is 604665837.
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Residential and commercial solutions