# E-HP AW Air Source Heat Pump.

## **Specification guide**

**Designing the future of heating** 

Trust our expertise to deliver the right heating solution







- Remeha, the expert choice
- 5 We are with you every step of the way
- 6 Explore the range
- 7 One brand One total solution
- 8 E-HP AW 44 Ace B specification
- 9 E-HP AW 44 Ace B dimensions
- 10 E-HP AW 88 Ace B specification
- 11 E-HP AW 88 Ace B dimensions
- 12 E-HP AW 44 Ace B spacial requirements
- 13 E-HP AW 88 Ace B spacial requirements
- 14 Condensate piping, hydraulic piping and cable-ducting detail
- 15 Hydraulic schematics
- 16 Schematic example of domestic hot water pre-heat with gas-fired water heater
- 17 Hybrid Primary Heating via Boilers and ASHP

- 18 Hybrid Primary Heating via Boilers and ASHP with DHW pre-heat
- 19 Primary heating via ASHP with DHW pre-heat
- 21 Technical support and declaration of compliance



Our flexible E-HP AW Air Source Heat Pumps are the perfect solution for the heating systems.

## Heating buildings in the right way.

## Remeha, the expert choice.

Complete commercial solutions from the experts in sustainable heating and hot water.

Put Remeha's Air Source Heat Pumps at the heart of your next heating system. Our E-HP AW heat pumps make a valuable contribution to delivering reliable, efficient and flexible heating performance, ready for the low-carbon challenge of tomorrow.

We're the experts in heating and hot water solutions built with sustainable technology. Our teams will guide you through the right choices for your commercial heating and hot water project. So from specification and design, through to supply and installation, our customer service and product support are second to none.

## We are with you every step of the way

supporting and guiding you as your project develops.

Our comprehensive project process supports you

Our experts are here to deliver the heating solution that's right for your project. When you first get in touch, we don't start with a fixed idea of what we'll recommend

Instead, we'll talk you through your enquiry - listening and asking the right questions to discover exactly what you need, and reviewing your request with our specialist engineers.

We'll put together a project design team, who'll match your requirements with solutions from across our range of technologies, from our own range and our partner brands.

Through the process and all the way to commissioning, our team are here to support and advise.

Whatever the project or requirement, our customer service and product support will give you the confidence that our bespoke solution will achieve your goals.



#### 01 Enquiry

We'll listen and ask you the questions needed to help you discover the right solution.

#### 02 Proposal

We define and propose the solutions that best fit the project.

### 03 Design

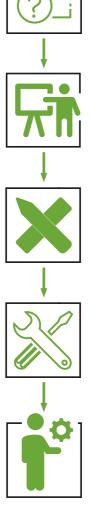
Our expert team will create detailed plans and provide full solution support.

#### 04 Install

We support the installer through the installation process to successful commissioning.

#### 05 Handover

Once the system is installed, we provide comprehensive support to maximise efficiencies and prolong the life of the system.



## **Explore** the range.

#### Reliable and sustainable - your efficient new choice.

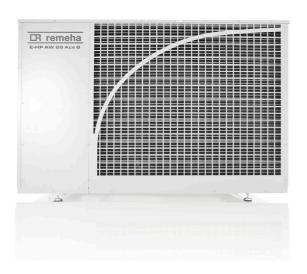
Our monobloc design is a self-contained heat generator, extracting renewable heat from the atmosphere and amplifying it using refrigerant compression.

Select from two different outputs, in new or retrofit applications, either on their own or as part of a multivalent heating system. Wherever you need heating or indirect hot water production, our heat pumps are a high-performing, efficient choice.



#### E-HP AW 44 Ace B:

- Up to 65°C flow temperature
- > Operation down to -20°C
- > COP up to 5.74
- > 37.23kW at A10/W35



#### E-HP AW 88 Ace B:

- Up to 65°C flow temperature
- > Operation down to -20°C
- > COP up to 6.02
- > 74.47kW at A10/W35

## One brand

### one total solution.

## Comprehensive advice on ancillary equipment and specifications.

As part of Baxi, we source solutions from a wide portfolio of brands and products. From heat pumps and heat exchangers through our extensive range of electric and gas-fired water heaters, we'll select the right combination for your project.

We can even design and manufacture pre-packaged rigs or full turnkey-enabled plant rooms for easy on-site installation, and reduced health and safety risks.

Accessories				
Part Number	Description			
7792000	E-HP AW 44 Ace B complete with Phase Protection and Soft Starter fitted as standard			
7792001	E-HP AW 88 Ace B complete with Phase Protection and Soft Starter fitted as standard			
7723087	Flexible hose connection pack from heat pump to system for E-HP AW 44 Ace B			
7695891	Flexible hose connection pack from heat pump to system for E-HP AW 88 Ace B			
7769271	Coastal level corrosion-resistant heat exchanger for E-HP AW 44 Ace B			
7769269	Coastal level corrosion-resistant heat exchanger for E-HP AW 88 Ace B			
7769272	Modbus connection			
7796379	750lt Thermal Store			
7796240	750lt Thermal Store with insulation			
7796380	1000lt Thermal Store			
7796242	1000lt Thermal Store with insulation			

To find out more about the Remeha E-HP AW ASHP range, compatible accessories and thermal stores, contact your local Remeha expert remeha.co.uk/contact-us

**BDR THERMEA** UK & IRELAND

## E-HP AW 44 Ace B

## specification.

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#### KIWA00043/001

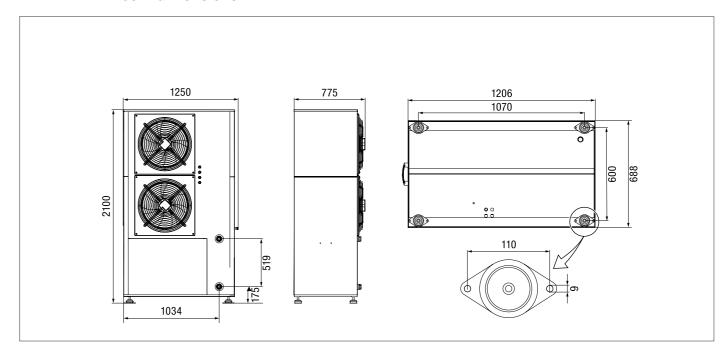
Performance	Unit	44 ACE B
Heating capacity at A7/W35	kW	34.32
Power input at A7/W35	kW	7.81
COP at A7/W35		4.4
Heating capacity at A-7/W35	kW	21.09
Power input at A-7/W35	kW	7.48
COP at A-7/W35		2.82
SCOP average climate low temperature		3.87
SCOP average climate high temperature		2.98
Seasonal efficiency low temperature	%	152
Seasonal efficiency high temperature	%	116
ERP Data		
Energy label rating average climate		A++
Sound power rating indoors/outdoors LAW	dB	0/65
Refrigerant		
Refrigerant type		R407c
Refrigerant weight	kg	13
Refrigerant GWP		1774
Equivalent CO <sub>2</sub>	Т	23
Hydraulics		
Nominal volume flow rate, sink***	I/s	1.65
Minimum volume flow rate, sink***	I/s	0.82
Flow/Return ΔT	°C	5-10
Pressure drop @ nominal flow rate	kPa	15
Max operating pressure	bar	10
Min operating pressure	bar	2
Max supply temperature	°C	65
Flow connection size	Inch	1 ½
Return connection size	Inch	1 ½
Circulation pump integrated		No
Pressure relief valve integrated		No
Expansion vessel integrated		No

Source Data	Unit	44 ACE B
Operating limits, source [air]	°C	-20 to +35
Nominal volume flow rate, source	m³/h	8500
Electrical		
Protection class		IP42
	Phases	3 + Neutral
Power supply compressor	Hz	50
	V	400
Nominal voltage compressor	V	400
Nominal voltage fans	V	230
Power supply controller 1 phase + neutral	V	230
Number of compressors		1
Number of fans		2
Starting current with soft starter 1st compressor	А	57.6
Starting current with soft starter 2nd compressor**	А	-
Power input controller	kW	7.9
Max operating current FLC	А	26.7
Nominal current (A7 & W55)*	А	19.1
General		·
Sound power level LwA*	dB(A)	65
Sound pressure level LpA		74.5
	Height	2100
Unit dimensions (mm)	Width	1250
	Depth	775
Unit weight dry	kg	460
	Front	2000
Comice eleganness (m)	Rear	2000
Service clearances (mm)	Left Side 1500	
Right Side	Right Side	1500
* In accordance with EN 9614-2 under condition A7/W55.		

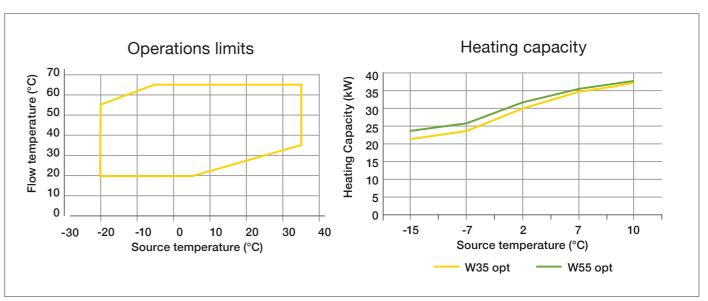
## E-HP AW 44 Ace B

## dimensions.

#### E-HP AW 44 Ace B dimensions



#### E-HP AW 44 Ace B performance



<sup>\*\*</sup> The accumulated starting current is calculated with the starting current of the second compressor and the maximum operating current (MOC) of the first compressor, seen as the worst-case scenario.

<sup>\*\*\*</sup> The circulating pump for the ASHP must be capable of accepting a 0-10v speed control signal from the appliance; the pump must have sufficient modulation to meet both the nominal and minimum flow rates.

## E-HP AW 88 Ace B

## specification.

Contact your Remeha expert for more information remeha.co.uk/contact-us

Performance	Unit	88 ACE B
Heating capacity at A7/W35	kW	68.64
Power input at A7/W35	kW	15.24
COP at A7/W35		4.5
Heating capacity at A-7/W35	kW	47.03
Power input at A-7/W35	kW	14.6
COP at A-7/W35		3.22
SCOP average climate low temperature		4.26
SCOP average climate high temperature		3.22
Seasonal efficiency low temperature	%	168
Seasonal efficiency high temperature	%	126
ERP Data		
Energy label rating average climate		A++
Sound power rating indoors/outdoors LAW	dB	0/67
Refrigerant	<u>'</u>	
Refrigerant type		R407c
Refrigerant weight	kg	17
Refrigerant GWP		1774
Equivalent CO <sub>2</sub>	Т	30.2
Hydraulics		
Nominal volume flow rate, sink***	I/s	3.3
Minimum volume flow rate, sink***	I/s	1.64
Flow/Return ΔT	°C	5-10
Pressure drop @ nominal flow rate	kPa	25
Max operating pressure	bar	10
Min operating pressure	bar	2
Max supply temperature	°C	65
Flow connection size	Inch	2
Return connection size	Inch	2
Circulation pump integrated		No
Pressure relief valve integrated		No
Expansion vessel integrated		No

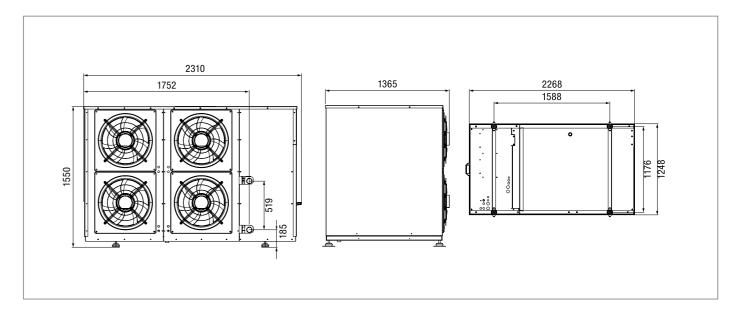
Source Data	Unit	88 ACE B
Operating limits, source [air]	°C	-20 to +35
Nominal volume flow rate, source	m³/h	17100
Electrical		
Protection class		IP42
	Phases	3 + Neutral
Power supply compressor	Hz	50
	V	400
Nominal voltage compressor	V	400
Nominal voltage fans	V	230
Power supply controller 1 phase + neutral	V	230
Number of compressors		2
Number of fans		4
Starting current with soft starter 1st compressor	А	73.6
Starting current with soft starter 2nd compressor**	А	100
Power input controller	kW	15
Max operating current FLC	А	53.4
Nominal current (A7 & W55)*	А	38.2
General		
Sound power level LwA*	dB(A)	67
Sound pressure level LpA		81.5
	Height	1550
Unit dimensions (mm)	Width	2310
	Depth	1365
Unit weight dry	kg	790
	Front	2000
Coming algorouses (mm)	Rear	2000
Service clearances (mm)	Left Side	1500
	Right Side	1

aximum operating current (MOC) of the first compressor, seen as the worst-case scenario.

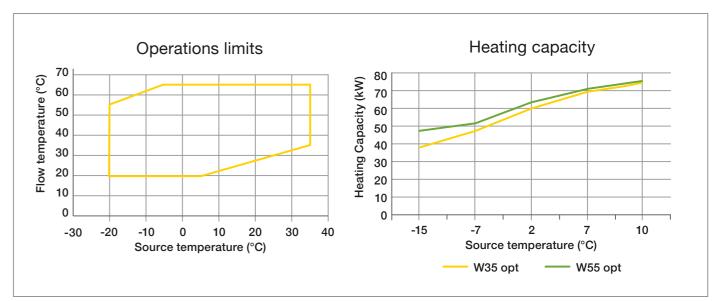
## E-HP AW 88 Ace B

## dimensions.

#### E-HP AW 88 Ace B dimensions



#### E-HP AW 88 Ace B performance



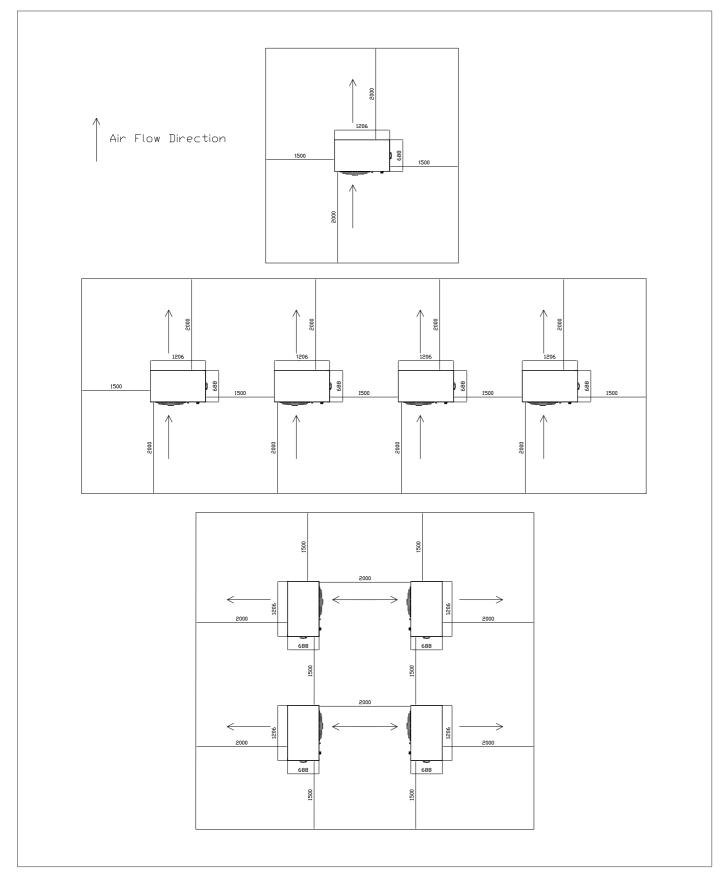
<sup>\*\*\*</sup> The circulating pump for the ASHP must be capable of accepting a 0-10v speed control signal from the appliance; the pump must have sufficient modulation to meet both the nominal and minimum flow rates.

## E-HP AW 44 Ace B

## spacial requirements.

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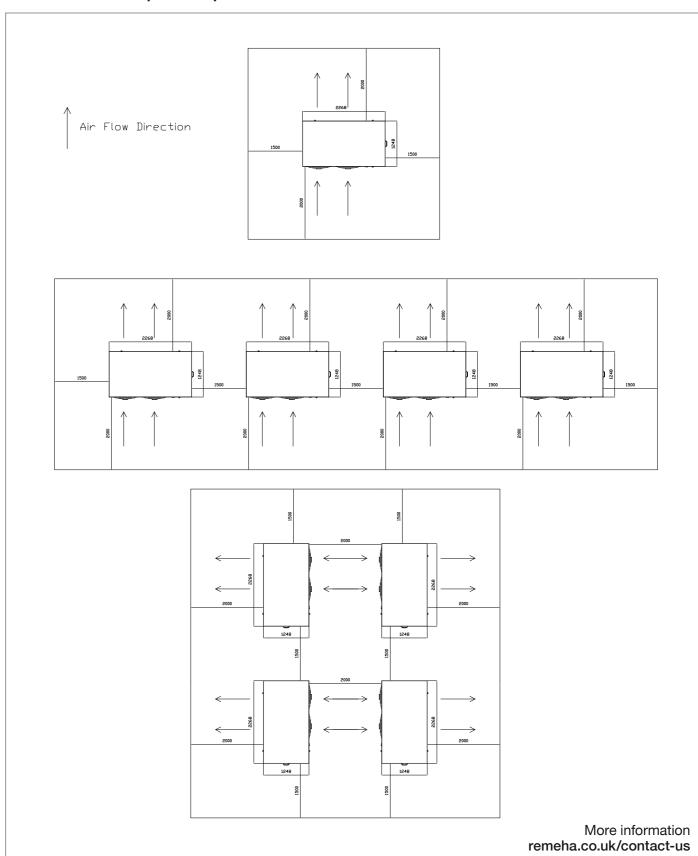
#### E-HP AW 44 Ace B spacial requirements



## E-HP AW 88 Ace B

## spacial requirements.

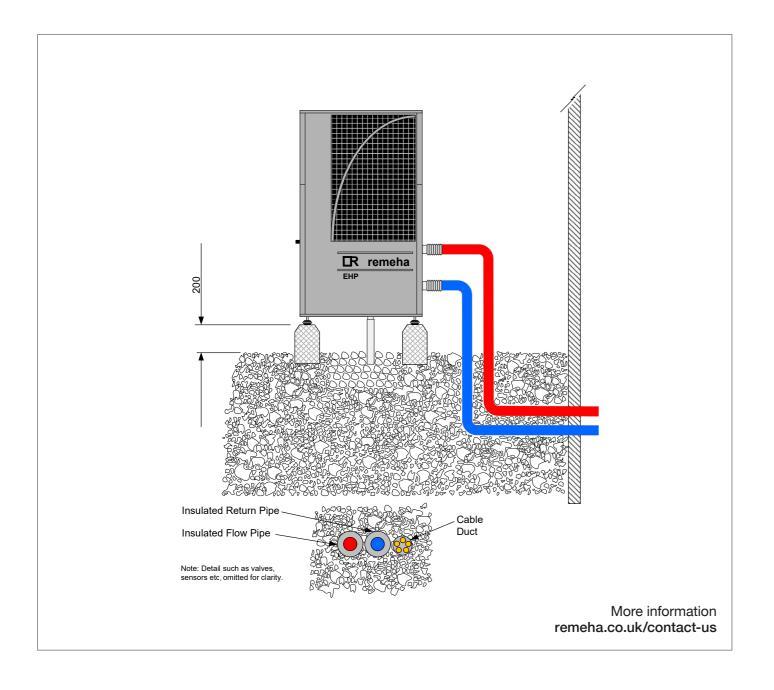
#### E-HP AW 88 Ace B spacial requirements



## Condensate piping, hydraulic piping and cable-ducting detail.

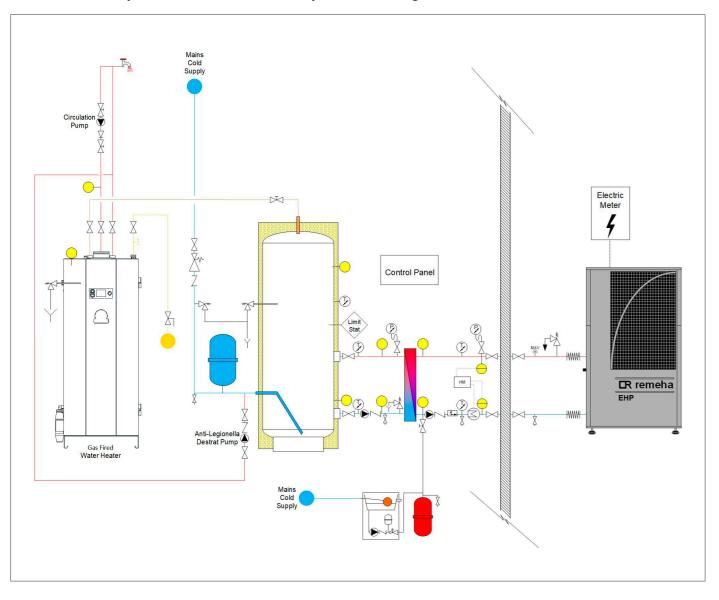
- > Flexible connections for the flow and return pipes are available as optional extras. We recommend that the flexible pipes or vibration absorbers are fitted to avoid the emission of vibrations to the pipework
- > The flow and return pipework should be well insulated
- The condensate drainage connection for each unit is underneath the ASHP. In most cases further piped drainage of the condensate will be required
- > ASHP condensate can be connected to rainwater drainage as the water is clean
- Install trace heating on the condensate pipework to avoid freezing

- > The ASHPs require both a single phase (230V) and 3 phase (400V) electrical supplies
- > The ASHPs come with a soft starter installed as standard
- > Ensure that the building's existing or proposed electrical supply is suitable for the installation of ASHP(s)
- The ASHP (or cascade of) requires electrical metering. An application to the District Network Operator will also be required

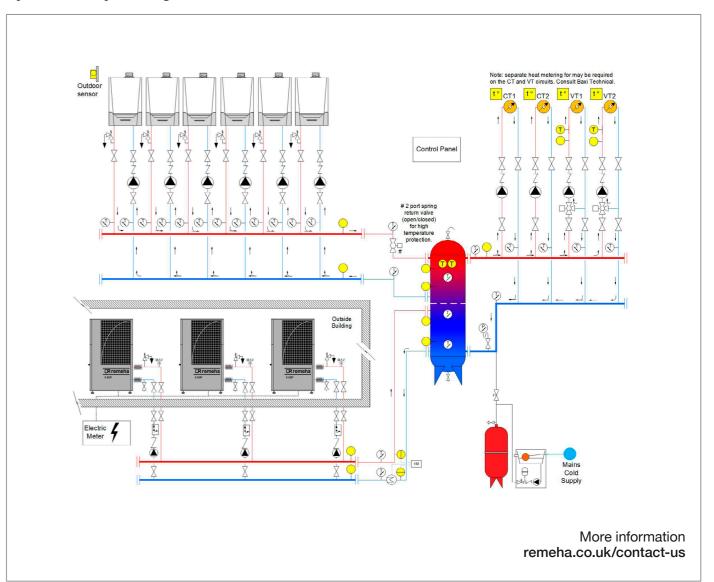




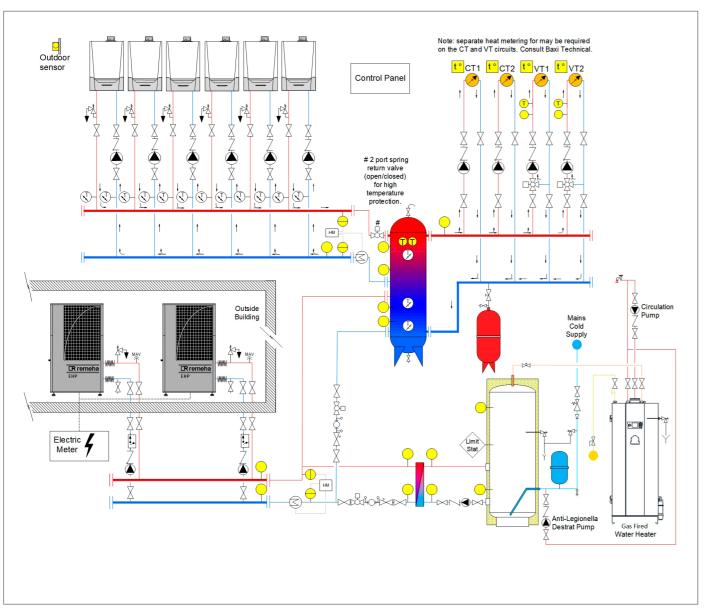
#### Schematic example of domestic hot water pre-heat with gas-fired water heater



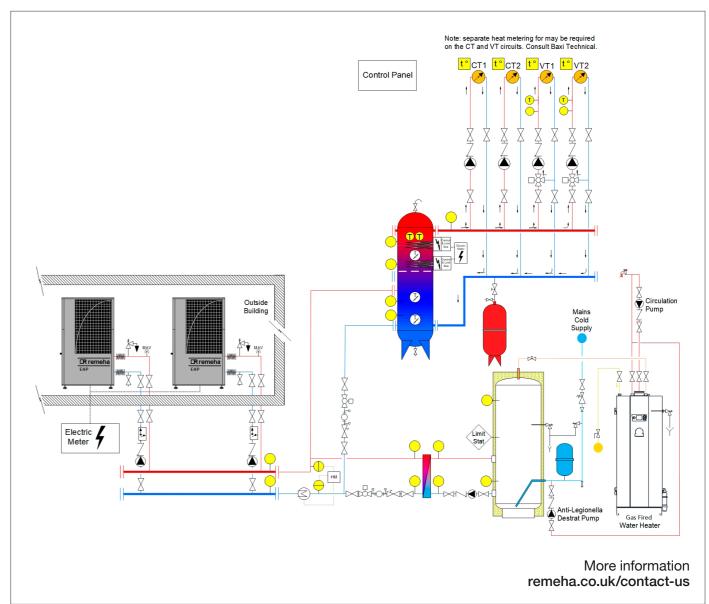
#### **Hybrid Primary Heating via Boilers and ASHP**

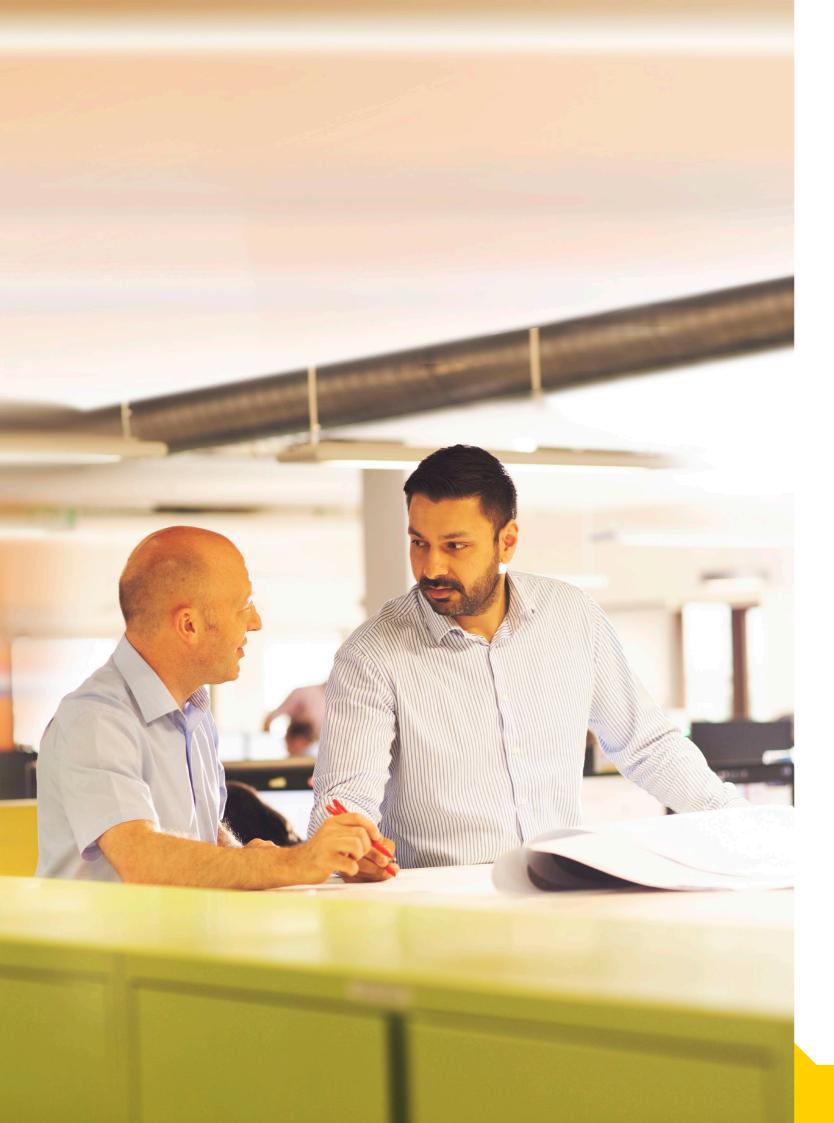


#### Hybrid Primary Heating via Boilers and ASHP with DHW pre-heat



#### Primary heating via ASHP with DHW pre-heat





## **Technical support and** declaration of compliance.

#### **Technical support**

From brochures to CAD drawings and BIM files, you can access all the information you need at remeha.co.uk

Or call our sales or technical departments on 0345 070 1055.

We're always happy to help.

We can provide you with:

- > Brochures
- > Technical specification sheets
- Case studies
- > Installation manuals
- > BIM files
- > CAD files
- > Energy-related products directive data
- Commissioning
- > Technical information
- > Spare parts (part of our sales service)

#### **Declaration of compliance**

The Remeha E-HP AW Heat Pump Range meets the requirements of EU & UK Regulations and directives:

- > Pressure Equipment Directive 2014/68/EU (SI 2016/1105)
- > Low Voltage Directive 2014/35/EU (SI 2016/1101)
- > EMC-Directives 2014/35/EU (SI 2016/1091)
- > RoHS II 2011/65/EU (SI 2012/3032)
- > Ecodesign Directive 2009/125/EC
- > Ecodesign Regulation 813/2013 (SI 2013/3113)
- > Machinery Directive 2006/42/EC (SI 2008/1597)
- > Energy Labelling Regulations 813/2013/EC (EU 2017/1369)
- > Energy Labelling Directive 2009/125/EC
- > Waste electrical and electronic equipment (WEEE) -2012/19/EU (SI 2013/3113)

#### Applied Standards:

- > EN 60335-2-40:2014-01
- > EN 60335-1:2020-08
- > EN 60204-1:2019-06
- > EN 50090-6-1:2018-04
- > EN 378-2:2018-04
- > EN 378-3:2017-03
- > EN 379-4:2017-03
- > EN12263:1999-01
- > EN 55014-1: 2018-08
- > EN 55014-2: 2016-01

- > EN 61000-3-2: 2014
- > EN 61000-3-3: 2020-07
- > EN 61000-3-11: 2017-04
- > EN 61000-3-12: 2012-06
- > EN 60335-2-102:2016
- > EN 62233:2008-11
- > EN 14825:2019-07
- > EN 14511-1:2019-07
- > EN 12102-1:2018-02







Note: Content provided in this document is correct at time of publication, and subject to change without notice. Please refer to the Installation, Operation and Maintenance Manual which can be found at remeha.co.uk

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E-HP AW Air Source Heat Pump Specification Guide September 2023









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