

HARNITEK

Product Range



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HEAT PUMPS



- Exceptional Efficiency ERP Rated A+++
- Seasonal COP (SCOP) 4.7
- Simple Installation Package
- Performance Hub Gateway online support
- UK Training and Technical Support
- Lightweight outdoor unit
- Quiet operation 38dBa

HARNiTEK

Introducing Smart control heat pumps supported by UK training and technical support experts

Most essential components are pre-integrated for fast and consistent installations every time.

Our planet now requires action to combat climate change. The new design of Harnitek heat pumps are a genuine alternative to fossil fuel boilers.

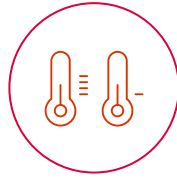
Simple to install, quiet operation, incredible efficiency and online monitoring support are all exceptional features of these units. Harnitek systems are a quick installation package for the UK market.



The Harnitek range of heat pumps are:



Simple fast installation



ERP Rated A+++ Efficiency



Lightweight and easy to handle



Performance Hub Gateway full system access and support



UK Training and Technical Support Experts



Smart Hub integrating key components and wiring centre

What the Harnitek heat pumps offer:

Next Generation Efficiency

Introducing Harnitek's range of A+++ R32 Heat pumps. All units are fully accredited at Low and medium heat outputs. Market leading SCOP of 4.7 meaning exceptional year round performance and faster recovery times.

Performance Hub Gateway

All Harnitek Smart Hub units can be linked to the internet through the integrated Modem. The online Performance Hub Gateway gives end users and installers a fully programmable platform for programming the system and optimising efficiency of performance.

Touch Screen LED

Harnitek Smart Hub units have a large simple to use touch screen LED controller. Basic quick functions and extended system analysis can be carried out directly through the screen.

Lightweight units

Lightweight outdoor units makes handling and installing the outdoor units manageable for 2 engineers. Suitable for easy wall mounting options without the need for heavy lifting equipment.

Quiet functionality

Harnitek heat pumps are exceptionally quiet, rated at only 38db at 2.1m. It is hard to define how quiet something is, but we are confident you will be astonished at the performance. Settings allow additional 'quiet mode' for the most sensitive locations.

UK Technical Support and training

Harnitek heat pumps are supported by a UK based training and support centre. Harnitek installations should be successful first and every time, with system support carried out remotely using the Performance Hub Gateway.

Hybrid Compatible

Harnitek heat pumps also control any secondary heating source. Simply connect to the Smart Hub to allow secondary sources to contribute to your overall heating demand.

Simple installation

Harnitek heat pumps have simplicity of installation & maintenance at the core of their design. Many of the technical aspects of heat pump installation are pre-assembled into the Smart Hub, saving installation time and allowing all key components to be monitored via the Performance Hub Gateway.

Harnitek Air to water heat pump

The Harnitek R32 air source heat pumps, are the next generation of domestic air to water heat pumps. This class leading heat pump uses R32 refrigerant for exceptional cold weather performance and efficiency.

The new Harnitek R32 heat pump is built for exceptional efficiency & reliability, capable of flow temperatures, making it the ideal choice for new and existing heating systems. It is incredibly quiet at just 38dBa when in use. This means the ThermoAIR plus can be installed close to adjacent properties, opening up renewable heating and hot water to almost all properties. The lightweight design of the outdoor units offers flexible installation options.



Room Temperature Control Function



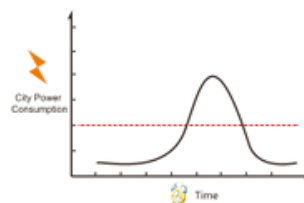
Room Temperature Compensation Function



Auto Heat/Cool Switch-over Mode



Smart Grid Ready



The SmartHUB provides a platform for simple, efficient and consistent air source installations.

Flexible installation options

Hybrid system ready

Easily control Multiple heat sources

Smart monitoring & remote control

Weather compensation

System sensors to monitor, flow return and buffer tank temperatures

3kw back up heater

PRV and pressure gauge

Circulation pump

LCD touch screen controls

Thermostatic mixing valve

Diverter valve

Wiring centre

AutoLegionella protection

No F-gas required

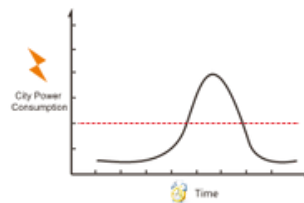
These internal units make installation simple and efficient. Much of the complex installation work of a traditional heat pump has been manufactured into these indoor units. Saving time, money and disruption for the end user. The Smart HUB system makes combining renewable heating with other thermal technologies simple. For example a gas boiler can be wired directly into the Smart HUB, allowing it to operate seamlessly with your new air source, giving an unprecedented level of control and further broadening the application of air source heating technology.



HARNITEK HEAT PUMPS

Harnitek Mono Package

Available in 6kW, 9kW, 12kW, 15kW & 19kW heat output



HEAT PUMPS **HARNITEK**

For a more flexible solution smartHUB mono can be installed with a heatpump hot water cylinder. The smartHUB mono is also prewired with all the relevant sensors, including cylinder temperature sensor and diverter valve. The unit has an inbuilt direct electric backup heater as well as separate flow connections for space heating and hot water circuits, further simplifying installation.



- Flexible installation options
- Multiple flow temps
- Hybrid system ready
- Easily control Multiple heat sources
- In built monitoring & remote control
- In built weather compensation
- Inbuilt system sensors to monitor, flow return and buffer tank temperatures
- Inbuilt 3kw back up heater
- Inbuilt PRV and pressure guage
- Circulation pump
- LCD touch screen controls
- In built thermostatic mixing valve
- In built diverter valve
- In built wiring centre
- In built Legionella protection
- No F-gas required



- A+++ Rated
- Ultra quiet 38dba
- Lightweight, 2 person lift
- High quality finish
- Flow Temperatures of up to 60c
- SCOP 4.3
- Available in 6kw, 9kw & 12kw heat outputs
- Weather compensation



SmartHub Mono6



SmartHub Mono9



SmartHub Mono12

Harnitek Mono Package

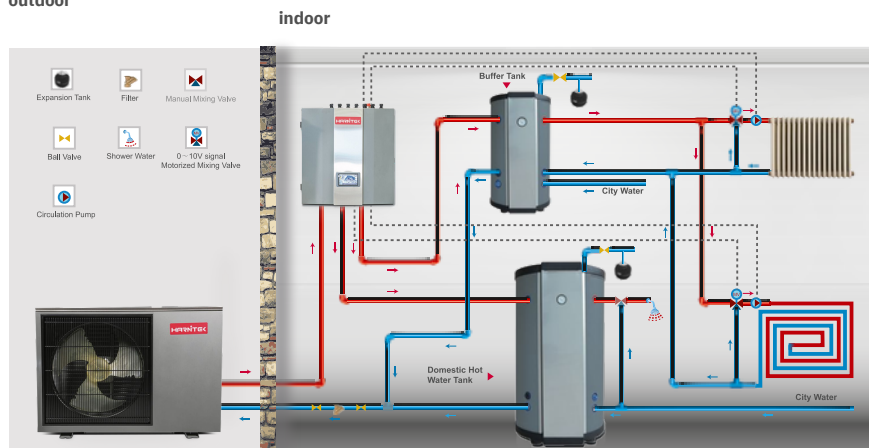
Linking directly to the A+++ 6kw, 9kw, 12kw, 15kw and 19kw Harnitek heat pumps the Mono Smart Hub removes installation variables by incorporating controlling key components.



These units are installed alongside new or existing hot water cylinders.

- The Harnitek Wiring Centre significantly simplifies the electrical installation. Installers now only need to bring in and connect the relevant power supply. Clearly labelled and
- simple connection allows existing heating controls to be connected, secondary heat sources and other external connections.
- Simple in and out water connections.
- Integrated electronic 3 way valve. Instant upgrade from mechanical units, this is already integrated into the Mono Smart Hub.
- Integrated circulation pump ensure the correct pump unit is pre-assembled into the system.
- Inbuilt 3kw Immersion heater again removes component variables and installation time.
- Inbuilt expansion vessel and PRV again removes component and installation variables providing consistency and efficiency to all installations
- 2 separate flow temperatures allow the heating and hot water to be automatically run at separate temperatures
- Integrated Modem allows either wifi connection or hardwire connection from every unit to connect to the Performance Hub Gateway.

Application



Harnitek Air to water heat pump performance

| | Unit MAX Output (6kW) | Unit MAX Output (9kW) | Unit MAX Output (12kW) | Unit MAX Output (15kW) | Unit MAX Output (19kW) |
|----------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
| MODEL | | | | | |
| Air temp @-2c w 35c | | | | | |
| Compressor speed (Hz) | 90HZ | 90HZ | 90HZ | 76HZ | 76HZ |
| Inlet water temperature | 31.89 | 31.89 | 31.89 | 31.89 | 31.89 |
| Outlet water temperature | 35.07 | 35.07 | 35.07 | 35.07 | 35.07 |
| Heating Capacity | 5439.50 | 6796.49 | 8908.37 | 12199.48 | 15549.09 |
| Input Power | 1588.50 | 1979.59 | 2541.74 | 3210.65 | 4044.45 |
| COP | 3.42 | 3.42 | 3.49 | 3.80 | 3.83 |

| | Unit MAX Output (6kW) | Unit MAX Output (9kW) | Unit MAX Output (12kW) | Unit MAX Output (15kW) | Unit MAX Output (19kW) |
|----------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
| MODEL | | | | | |
| Air temp @ 7c w 35c | | | | | |
| Compressor speed (Hz) | 90HZ | 90HZ | 90HZ | 76HZ | 76HZ |
| Inlet water temperature | 31.9 | 31.89 | 31.89 | 31.89 | 31.89 |
| Outlet water temperature | 35 | 35.24 | 34.89 | 35 | 35 |
| Heating Capacity | 7454 | 1917.13 | 11671 | 15516.23 | 18526.38 |
| Input Power | 1652.0 | 2055.86 | 2683 | 3297.1 | 4141.91 |
| COP | 4.50 | 4.48 | 4.3 | 4.71 | 4.47 |

| | Unit MAX Output (6kW) | Unit MAX Output (9kW) | Unit MAX Output (12kW) | Unit MAX Output (15kW) | Unit MAX Output (19kW) |
|------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
| Compressor speed (Hz) | | | | | |
| Air temp @-2c w 55c | | | | | |
| Inlet water temperature | 90HZ | 90HZ | 90HZ | 76HZ | 76HZ |
| Outlet water temperature | 50.10 | 50.10 | 50.20 | 50.10 | 50.20 |
| Heating Capacity | 55.02 | 55.02 | 55.02 | 55.02 | 55.02 |
| Input Power | 5206.50 | 5867.08 | 7570.43 | 9959.88 | 11109.15 |
| COP | 2107.00 | 2919.07 | 3765.72 | 4677.79 | 4829.16 |
| | 1.99 | 2.00 | 2.01 | 2.12 | 2.29 |

| | Unit MAX Output (6kW) | Unit MAX Output (9kW) | Unit MAX Output (12kW) | Unit MAX Output (15kW) | Unit MAX Output (19kW) |
|------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
| Compressor speed (Hz) | | | | | |
| Air temp @ 7c w 55c | | | | | |
| Outlet water temperature | 90HZ | 90HZ | 90HZ | 76HZ | 76HZ |
| Heating Capacity | 50.1 | 50.2 | 50.10 | 50.82 | 50.10 |
| Input Power | 54.9 | 54.87 | 55.00 | 55 | 55 |
| COP | 5698 | 7616.54 | 9866 | 12916.27 | 17676.86 |
| | 2193 | 3092.68 | 3751 | 4804.07 | 5955.82 |
| | 2.6 | 2.56 | 2.6 | 2.69 | 2.97 |

| UNIT | YHPK-6V1TBA | YHPK-9V1TBA | YHPK-12V1TBA | YHPK-15V1TBA | YHPK-19V1TBA |
|----------------|---|---|---|--|--|
| Compressor | Twin-Rotary | Twin-Rotary | Twin-Rotary | Twin-Rotary | Twin-Rotary |
| Fan | 1 no. 34 watt | 1 no. 45 watt | 1 no. 45 watt | 2 no. 34 watt | 2 no. 34 watt |
| Noise level dB | 52 | 53 | 52 | 55 | 59 |
| Water side | Plate heat exchanger: Pipe work connection: 1" | Plate heat exchanger: Pipe work connection: 1" | Plate heat exchanger: Pipe work connection: 1" | Plate heat exchanger: Pipe work connection: 11/4" | Plate heat exchanger: Pipe work connection: 11/4" |
| Dimensions | 570x550x255 | 570x550x255 | 570x550x255 | 570x550x255 | 570x550x255 |
| Indoor unit | 1010x370x700 | 1165x370x845 | 1165x370x845 | 1085x390x1450 | 1085x390x1255 |
| Outdoor unit | 25Kg | 25Kg | 25Kg | 25Kg | 25Kg |
| Net weight | 67Kg | 78Kg | 85Kg | 120Kg | 130Kg |
| Indoor unit | | | | | |
| Outdoor unit | | | | | |

HARNITEK HEAT PUMPS

Harnitek Combi Package

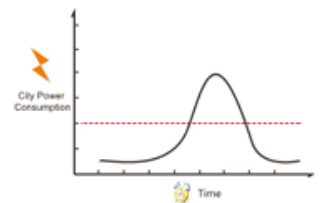
Available in 6kw, 9kw, 12kw, 15kw & 19kw heat output



Auto Heat/Cool Switch-over Mode



Smart Grid Ready



HEAT PUMPS **HARNTEK**

The SmartHUB combi, contains an integrated 250 litre thermal store, pump, expansion vessels and back up heaters. The system is pre-wired, to further assist in a consistent and quick installation and no Fgas certification is required. ThemoAIR plus and SmartHUB combi installation can be completed in a single day. Minimising disruption and cost for the end user.



- 250l of thermal store
- Hybrid system ready
- Easily control Multiple heat sources
- Multiple flow temps
- Smart monitoring & remote control
- Weather compensation
- Sensors to monitor, flow return and buffer tank temperatures
- 9kw back up heater
- Expansion vessel
- PRV and pressure gauge
- Circulation pump
- LCD touch screen controls
- Thermostatic mixing valve
- Diverter valve
- Wiring centre
- Legionella protection
- No F-gas required



- A+++ Rated
- Ultra quiet 38dba
- Lightweight, 2 person lift
- High quality finish
- Flow Temperatures of up to 60c
- SCOP 4.3
- Available in 6kw, 9kw & 12kw heat outputs
- Weather compensation



SmartHub Combi6



SmartHub Combi9



SmartHub Combi12

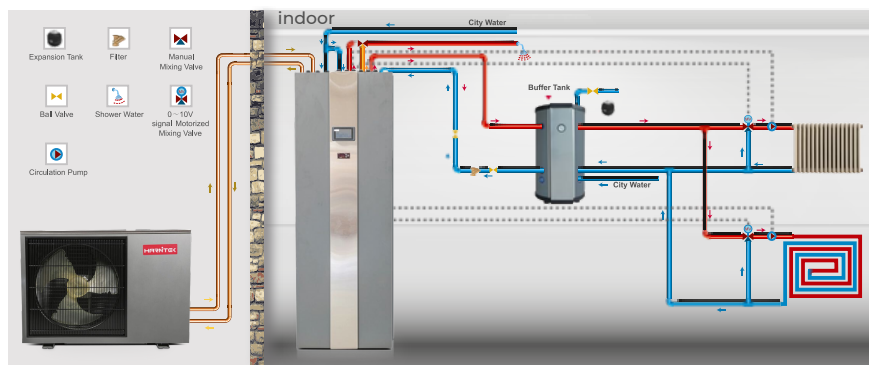
Harnitek Combi Package

Linking directly to the A+++ 6kw, 9kw, 12kw, 15kw and 19kw Harnitek heat pumps the Combi Smart Hub removes installation variables by incorporating and managing most of the fixed required components.



Application

outdoor



The Combi Smart Hub units have an integrated 250L water cylinder

- The Harnitek Wiring Centre significantly simplifies the electrical installation. Installers now only need to bring in and connect the relevant power supply. Clearly labelled and simple connection allows existing heating controls to be connected, secondary heat sources and other external connections.
- Simple in and out water connections.
- Integrated electronic 3 way valve. Instant upgrade from mechanical units, this is already integrated into the Mono Smart Hub.
- Integrated circulation pump ensure the correct pump unit is pre-assembled into the system.
- Inbuilt 3kw Immersion heater again removes component variables and installation time.
- Inbuilt expansion vessel and PRV again removes component and installation variables providing consistency and efficiency to all installations
- 2 separate flow temperatures allow the heating and hot water to be automatically run at separate temperatures
- Integrated Modem allows either wifi connection or hardwire connection from every unit to connect to the Performance Hub Gateway.

Harnitek Air to water heat pump performance

| | Unit MAX Output (6kW) | Unit MAX Output (9kW) | Unit MAX Output (12kW) | Unit MAX Output (15kW) | Unit MAX Output (19kW) |
|----------------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|
| MODEL | | | | | |
| Air temp @-2c w 35c | | | | | |
| Compressor speed (Hz) | 90HZ | 90HZ | 90HZ | 76HZ | 76HZ |
| Inlet water temperature | 31.89 | 31.89 | 31.89 | 31.89 | 31.89 |
| Outlet water temperature | 35.07 | 35.07 | 35.07 | 35.07 | 35.07 |
| Heating Capacity | 5439.50 | 6796.49 | 8908.37 | 12199.48 | 15549.09 |
| Input Power | 1588.50 | 1979.59 | 2541.74 | 3210.65 | 4044.45 |
| COP | 3.42 | 3.42 | 3.49 | 3.80 | 3.83 |

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|----------------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|
| MODEL | | | | | |
| Air temp @ 7c w 35c | | | | | |
| Compressor speed (Hz) | 90HZ | 90HZ | 90HZ | 76HZ | 76HZ |
| Inlet water temperature | 31.9 | 31.89 | 31.89 | 31.89 | 31.89 |
| Outlet water temperature | 35 | 35.24 | 34.89 | 35 | 35 |
| Heating Capacity | 7454 | 9217.13 | 11671 | 15516.23 | 18526.38 |
| Input Power | 1652.0 | 2055.86 | 2683 | 3297.1 | 4141.91 |
| COP | 4.50 | 4.48 | 4.3 | 4.71 | 4.47 |

| | Unit MAX Output (6kW) | Unit MAX Output (9kW) | Unit MAX Output (12kW) | Unit MAX Output (15kW) | Unit MAX Output (19kW) |
|------------------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|
| Compressor speed (Hz) | | | | | |
| Air temp @-2c w 55c | | | | | |
| Inlet water temperature | 90HZ | 90HZ | 90HZ | 76HZ | 76HZ |
| Outlet water temperature | 50.10 | 50.10 | 50.20 | 50.10 | 50.20 |
| Heating Capacity | 55.02 | 55.02 | 55.02 | 55.02 | 55.02 |
| Input Power | 4206.50 | 5867.08 | 7570.43 | 9959.88 | 11109.15 |
| COP | 2107.00 | 2919.07 | 3765.72 | 4677.79 | 4829.16 |
| | 1.99 | 2.00 | 2.01 | 2.12 | 2.29 |

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| Compressor speed (Hz) | | | | | |
| Air temp @ 7c w 55c | | | | | |
| Outlet water temperature | 90HZ | 90HZ | 90HZ | 76HZ | 76HZ |
| Heating Capacity | 50.1 | 50.2 | 50.10 | 50.82 | 50.10 |
| Input Power | 54.9 | 54.87 | 55.00 | 55 | 55 |
| COP | 5698 | 7916.58 | 9866 | 12916.27 | 17676.86 |
| | 2193 | 3092.68 | 3751 | 4804.07 | 5955.82 |
| | 2.6 | 2.56 | 2.6 | 2.69 | 2.97 |

| UNIT | | YHPK-6V1TBA | YHPK-9V1TBA | YHPK-12V1TBA | YHPK-15V1TBA | YHPK-19V1TBA |
|----------------|--------------|---|---|---|--|--|
| Compressor | | Twin-Rotary | Twin-Rotary | Twin-Rotary | Twin-Rotary | Twin-Rotary |
| Fan | | 1 no. 34 watt | 1 no. 45 watt | 1 no. 45 watt | 2 no. 34 watt | 2 no. 34 watt |
| Noise level dB | | 52 | 53 | 52 | 55 | 59 |
| Water side | | Plate heat exchanger: Pipe work connection: 1" | Plate heat exchanger: Pipe work connection: 1" | Plate heat exchanger: Pipe work connection: 1" | Plate heat exchanger: Pipe work connection: 11/4" | Plate heat exchanger: Pipe work connection: 11/4" |
| Dimensions | | 570x550x255 | 570x550x255 | 570x550x255 | 570x550x255 | 570x550x255 |
| Indoor unit | | 1010x370x700 | 1165x370x845 | 1165x370x845 | 1085x390x1450 | 1085x390x1255 |
| Outdoor unit | | 25Kg | 25Kg | 25Kg | 25Kg | 25Kg |
| Net weight | Indoor unit | 67Kg | 78Kg | 85Kg | 120Kg | 130Kg |
| | Outdoor unit | | | | | |

Power XR

The Class leading Harnitek power XR is the ideal high output air source heat pump, for replacing fossil fuel boilers.

- Outputs of up to 90kW
- Flow temperatures of up to 60c
- Cascade up to 16 units
- BMS ready control unit
- Simple installation
- Highly efficient A+++ erp rated
- Built in weather compensation
- Cost effective solution



The Power XR range has been designed to make the transition from large output fossil systems to a renewable alternative both economical and straightforward.



The in built control system allows for easy integration with other thermal technologies and existing BMS.

It is becoming increasingly important to have a detailed understanding of our energy usage, especially in a commercial environment.

The inbuilt “performance Hub gateway”, gives a real time view of system operation and performance, from anywhere in the world.

This Data is logged on our online monitoring platform, keeping an accurate record of performance and energy consumption throughout the year. This information is a powerful tool for optimising and maintaining your heating system.

As with all Harnitek heat pumps the power XR range has simplicity of installation & maintenance as a core design principle. We believe these systems are less time consuming to install & maintain than commercial fossil fuel systems.

Our UK based technical support team are on hand to assist with the set up and maintenance of your equipment.



Cascade

One operation panel can control up to 16 units



Heating Curve

Adjust outlet water temp. based on ambient temp. automatically



Modbus

Easy to communicate with BMS for smart building



Run in rotation

When two or more units are connected in the system, every unit runs alternately



WIFI module

Remote control, easy for service



Smart defrosting

Maximum 1/3 of the units are allowed to defrost at same time, for stable temperature of the whole system



Two Mixing Circuits

Two mixing circuits control for different heating zones



Emergency Operation

If master unit is off-line, by turning on the emergency switch, each heat pump unit can work individually according to last working command

Technical Data

| Model | | | YHEPK-30V4MB | YHEPK-45V4MA | YHEPK-90V4MA |
|---|--------------|-------|-------------------|----------------|---------------|
| IP rating | | | IPX4 | IPX4 | IPX4 |
| Power Supply | | | | | |
| Power Supply - Outdoor unit | Outdoor Unit | IPXX | | | |
| Fuse Outdoor Unit | | | 400V/50Hz/3Ph | 400V/50Hz/3Ph | 400V/50Hz/3Ph |
| Performance | V/ Hz | /Ph A | 3P/25A/C | 3P/40A/C | 3p/80A/C |
| Min/Max Heating Capacity (1) | | | | | |
| El. Heating Power Input Min/Max (1) | | | 15.2~28.7 | 13.7~43.7 | 27.4~89.6 |
| C.O.P (1) Min/Max(1) | KW | | 3467~7488 | 3325~12077 | 6650~24254 |
| Min/Max Heating Capacity (2) | W | | 3.83~4.43 | 3.62~4.42 | 3.68~4.50 |
| El. Heating Power Input Min/Max (2) | W/W | | 12.2~29.4 | 13.6~43.2 | 28.2~89.5 |
| C.O.P (1) Min/Max(2) | KW | | 3769~9035 | 4156~14308 | 8212~28300 |
| SCOP - Average Climate, Low Temperature | W | | 3.26~3.43 | 2.99~3.38 | 3.16~3.48 |
| Energy class | W/W | | 4.06 | 4.12 | 4.2 |
| Min/Max Cooling Capacity(3) | W | | A++ | A++ | A++ |
| El. Cooling Power Input Min/Max(3) | | | 15.2~26.8 | 17.7~32.0 | 36.4~66.0 |
| E.E.R. Min/Max(3) | KW | | 3253~8765 | 3491~11771 | 6982~23742 |
| Min/Max Cooling Capacity(4)(A35/W7) | W | | 3.06~4.68 | 2.72~5.09 | 2.8~5.19 |
| El. Cooling Power Input Min/Max(4) | W/W | | 7.3~21.2 | 11.2~29.9 | 23.4~61.2 |
| E.E.R. Min/Max(4) | KW | | 3121~7960 | 3529~11640 | 6880~23450 |
| SEER - Cooling | W | | 2.33~2.84 | 2.57~3.3 | 2.61~3.4 |
| Min/Max Ambient Working Temp. in Heating Mode | W/W | | | | |
| Min/Max Ambient Working Temp. in Cooling Mode | W | | -25-45 | -25-45 | -25-45 |
| Max Flow Temp. in Heating Mode | °C | | 20-45 | 20-45 | 20-45 |
| Min Flow Temp. in Heating Mode | °C | | 60 | 60 | 60 |
| Min Flow Temp. in Cooling Mode | °C | | 10 | 10 | 10 |
| Sound Power LevelOutdoor Unit | °C | | 5 | 5 | 5 |
| Indoor Unit | °C | | 62 | 66 | 69 |
| Components | dB(A) | / | / | / | / |
| Compressor Heater | dB(A) | | | | |
| Fan Quantity | | | 30 | 30 | 30*2 |
| | Airflow | W | 1 | 1 | 2 |
| Rated power | pcs | | 5250*2 | 13500 | 13500*2 |
| Blade Diameter | m3 /h | | 93*2 | 800 | 800*2 |
| Plate Heat ExchangerWater Pressure Drop | W | | 552*2 | 760 | 760*2 |
| Piping Connection | mm | | 60 | 80 | 65 |
| RefrigerantType | kPa | | 1 12" Inner Gorve | 2" Inner Gorve | DN65 Flange |
| Charge | Inch | | R410A | R410A | R410A |
| Compressor Type | / | | 5.2kg | 8kg | 8kg*2 |
| Compressor Oil | kg | | Inverter+EVI | Inverter+EVI | Inverter+EVI |
| Comp. Oil Volume | / | | FVC68S | FVC68D | FVC68D |
| Hydraulics | type | | 1.9 | 2.3 | 2.3L*2 |
| Minimum Water Flow | L | | | | |
| Nominal Water Flow | | | 2.7m3 /h | 5m3 /h | 10m³/h |
| Hydraulics Connections | m3 /h - | | 5.3m3 /h | 8m3 /h | 16m³/h |
| Dimensions and Weight | l/s m3 | | 1 12" Inner Gorve | 2" Inner Gorve | DN65 Flange |
| Net Dimensions(LxDxH) | /h - l/s | size | 1295*455*1450 | 1010*1160*165 | 2160*1200*165 |
| Brutto Dimensions(LxDxH) | Outdoor Unit | | 385*476*150 | 0 385*476*150 | 0 385x476x150 |
| | Indoor Unit | mm | 1325*475*1580 | 1030*1180*175 | 2180x1220x175 |
| Net Weight | Outdoor Unit | mm | 400*490*180 | 0 400*490*180 | 0 400x490x180 |
| | Indoor Unit | mm | 180 | 300 | 600 |
| Brutto Weight | Outdoor Unit | mm | 9 | 9 | 9 |
| | Indoor Unit | kg | 200 | 370 | 680 |
| Included with The Unit | Outdoor Unit | kg | 10 | 10 | 10 |
| Temperature Sensors | Indoor Unit | kg | | | |
| WIFI Module | | kg | 5K,B=3470 | 5K,B=3470 | 5K,B=3470 |
| Communication Cable | | | Yes | Yes | Yes |
| | type | | 20 | 20 | 20 |
| | Yes / No | | | | |
| | m | | | | |

Note:

- (1) Heating condition: water inlet/outlet temperature: 30°C/35°C, Ambient temperature: DB TCNVB 6°C;
- (2) Heating condition: water inlet/outlet temperature: 40°C/45°C, Ambient temperature: DB 7°CNVB 6°C;
- (3) Cooling condition: water inlet/outlet temperature: 23°C/18°C, Ambient temperature: DB 35°C/VVB 24°C;
- (4) Cooling condition: water inlet/outlet temperature: 12°C/7°C, Ambient temperature: DB 35°C/VVB 24°C.

HARNITEK

THERMOPOD

Thermodynamic Heat Pumps for Hot Water



Why choose ThermoPOD?

Solar Hot Water That Works In The Dark!

Are you tired of high energy bills and looking for a more sustainable solution for your hot water needs?

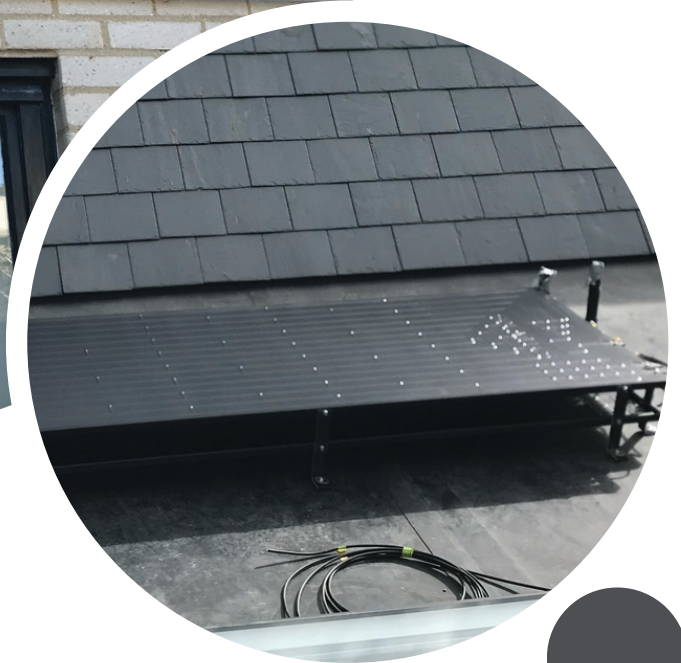
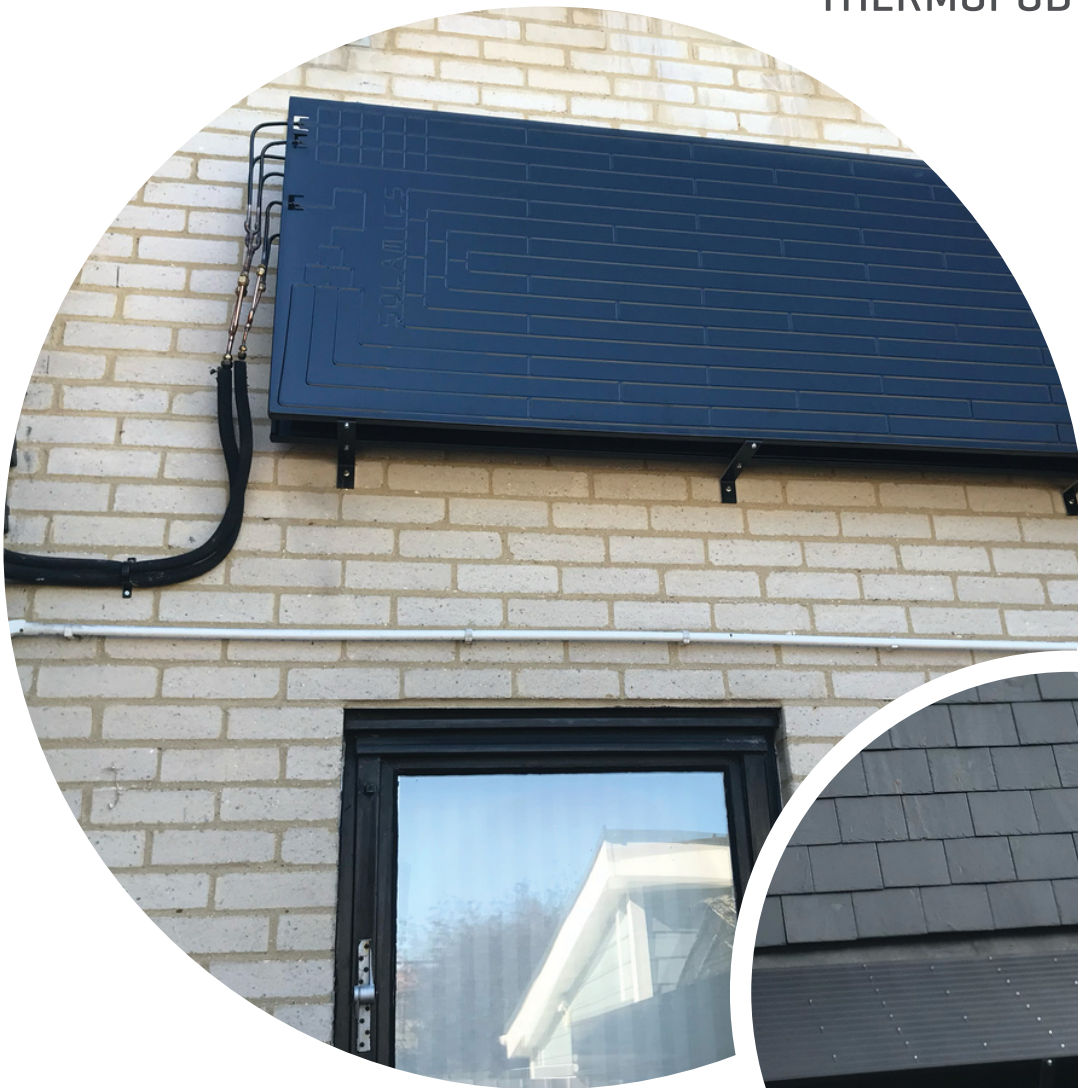
Look no further than ThermoPOD renewable hot water systems! Our innovative system uses the limitless free energy from the outside air to heat water.

Not only is this more environmentally friendly than using fossil fuels or direct electric immersion heaters, but it can also save you money on your energy bills.

ThermoPOD systems are easy to install and require minimal maintenance. They are also durable and built to last, so you can enjoy hot water for years to come.

So why wait? Make the switch to a ThermoPOD renewable hot water system today and start saving money and the environment!





ThermoPOD is a state-of-the-art, solar assisted heat pump that has been designed to deliver superior power and efficiency.

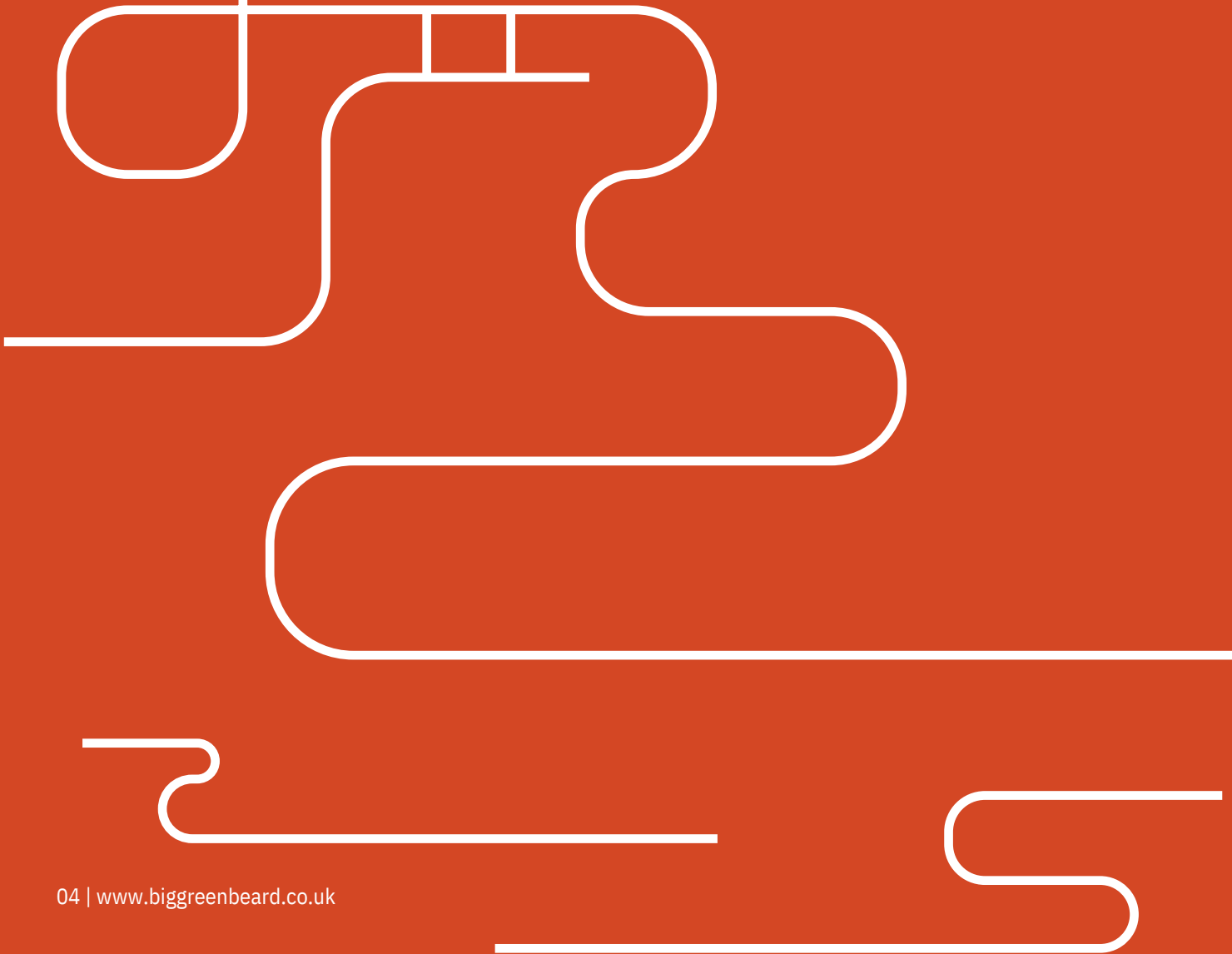
Our next-generation units, which are ERP A rated can be cascaded to meet larger hot water demands, ThermoPOD uses less than 500 watts per hour during operation and is capable of providing hot water to a family home year-round.

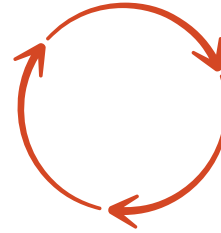
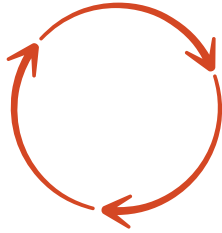
ThermoPOD has been installed in homes and businesses across the globe, including holiday resorts, restaurants, and salons.

Our units have been rigorously tested by Intertek, a world-renowned testing institute, and have achieved a COP of 4.3 at an average temperature of 7°C!

This impressive efficiency, combined with our robust design and makes ThermoPOD the ideal choice for almost any property's hot water requirements.

How does ThermoPOD work?





03

The ThermoPOD collector panels can be mounted on a wall, roof, or other flat surface, making the system adaptable to a variety of installations.

02

An ozone friendly refrigerant is passed through the collector panels. The refrigerant collects this free energy and transfers it into your hot water cylinder, via a robust tube in tube heat exchanger.

01

The ThermoPOD is a solar-assisted heat pump which collects the unlimited free energy in the outside air to produce hot water.

04

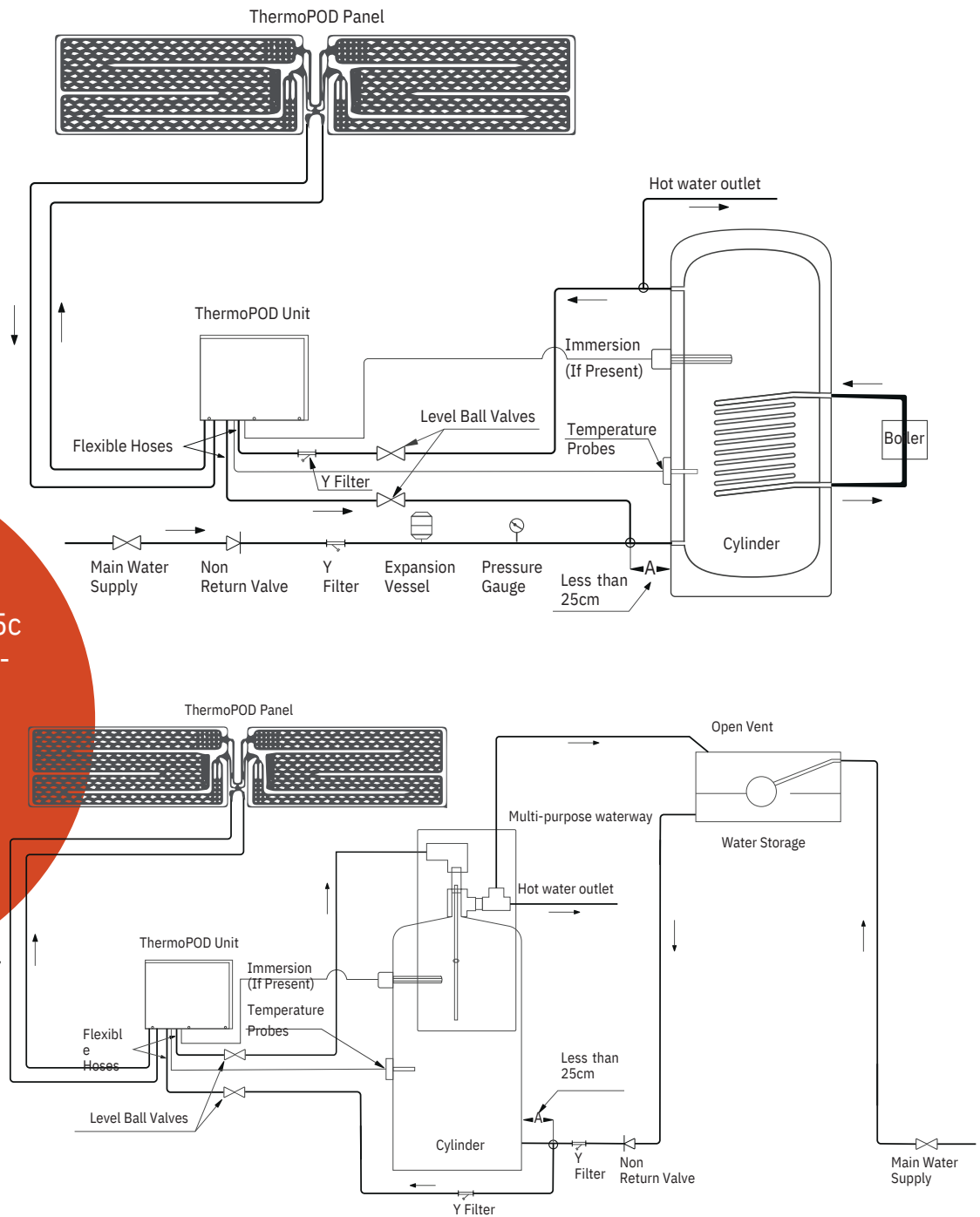
One of the unique features of the ThermoPOD is its ability to effectively operate at temperatures as low as -10°C . This makes it a suitable choice for locations with colder climates. Additionally, the system is able to continue working at night.

05

ThermoPOD can help to lower energy costs and reduce carbon emissions.

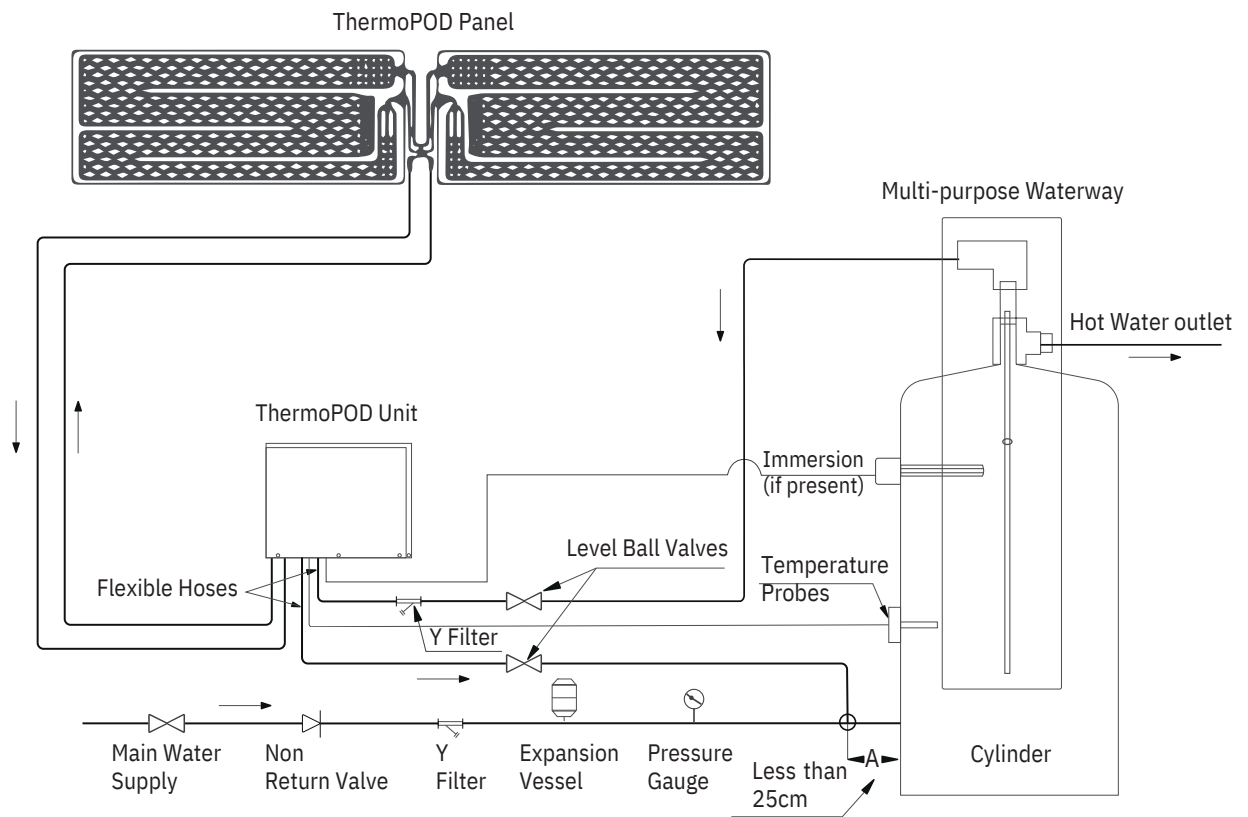
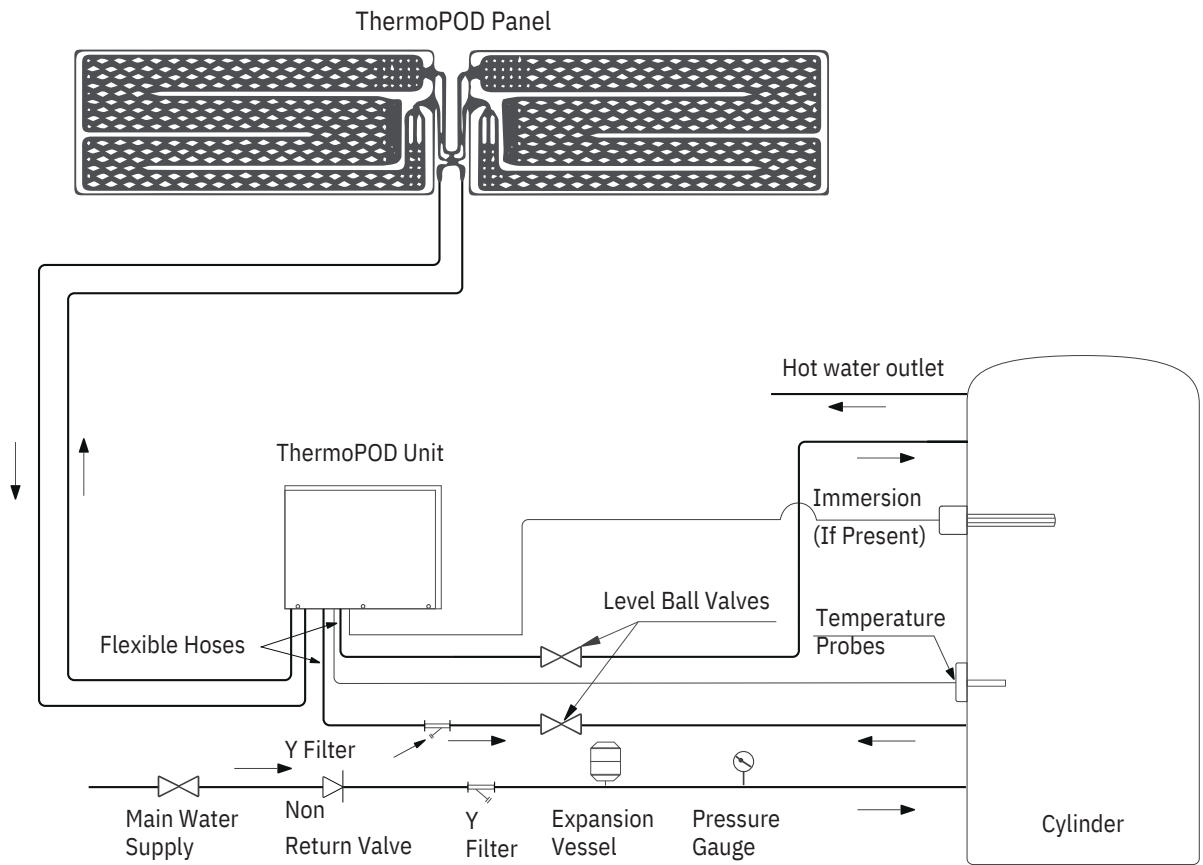
Flexible Installation Options

- Works with any unvented hot water cylinder - Hybrid system ready
- Multiple flow temps
- Smart monitoring & remote control
- WRAS approved Circulation pump
- LCD touch screen controls - Wiring centre
- Legionella protection
- F-gas required



COP of 4.3@ 7c air temperature and 55c water temperature - ERP A Rated

-High quality finish
 -Flow Temperatures of up to 60c



DUAL- COOL RADIATOR



AVAILABLE IN **0.7KW, 1.4KW, 2KW** AND **3KW** OUTPUT AT JUST 35C FOW TEMPERATURE!

Achieve excellent SCOP and year round comfort from your air source heat pump

HARNiTEK

Harnitek DUAL COOL RADIATOR:

Fan coil radiators circulate hot or cold water through a coil and use a fan to distribute the resulting heated or cooled air throughout a room. The fan draws in air and passes it over the coil, where it is heated or cooled. The heated or cooled air is then distributed back into the room through vents. Fan coil radiators provide energy efficiency and precise temperature control, making them a popular choice for residential and commercial spaces.



**European
manufactured valves**



Slim Design



Touch screen operation



**Coil with
Hydrophilic
Aluminum Fin**



Ultra low noise fan



Built in air filter



**Variable
speed
Motor** **DC**

Harnitek DUAL COOL Super-Slim SMART rad is the ultimate modern radiator.

The coil is comprised of a high-quality seamless copper tube and aluminum sinusoidal corrugated heat sink that is specially formed using our unique process. The tightly fitted fins and copper tube maximize thermal efficiency. The unit's ultra-wide-angle volute, multi-blade centrifugal barrel fan, and ultra low noise operation are designed to meet a range of heating and cooling applications.

By optimizing the motor's performance, the air volume supply remains consistent even when the fan load changes.

The brass distributor and water collector are formed through a one-piece forging and pressing process, ensuring uniform distribution of chilled water within the coil. Additionally, it reduces water flow resistance, maximizing the heat exchanger's efficiency and minimizing water system flow resistance.

You can be assured of reliability, and a long life expectancy.

The induction motor is equipped with a built-in overheat protection,

Harnitek KELVIN is ideal for low-noise environments such as homes, hotels, office buildings, shopping malls, hospitals.

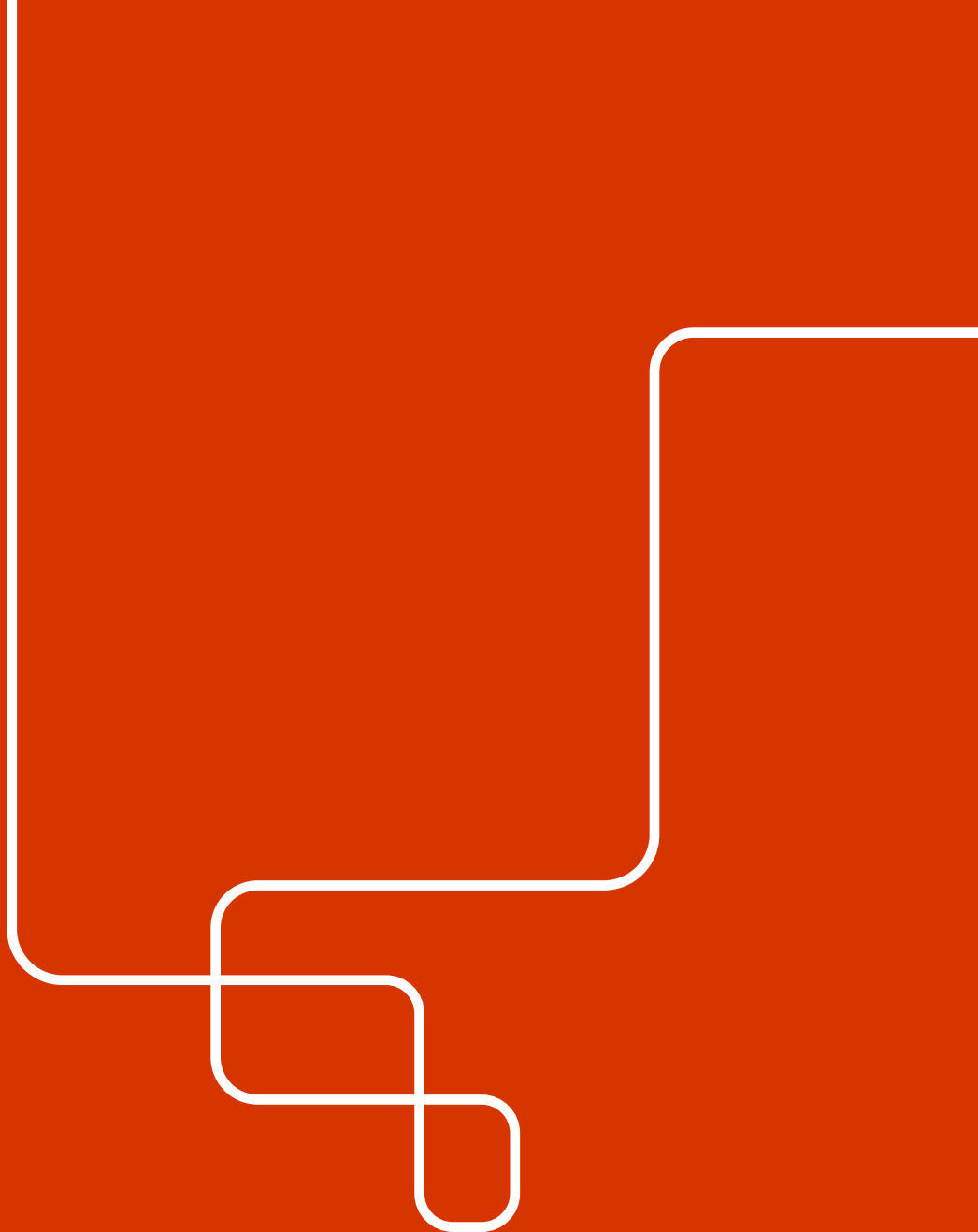
Universal Super-Slim Fan Coil Unit

| Fan Speed | Working Mode | Water Inlet Temp (°C) | BM150 Capacity (W) | BM350 Capacity (W) | BM450 Capacity (W) | BM550 Capacity (W) |
|------------|--------------|-----------------------|--------------------|--------------------|--------------------|--------------------|
| High Speed | Cooling | 7 | 748 | 1496 | 2154 | 3120 |
| | | 12 | 480 | 960 | 1412 | 2066 |
| | Heating | 35 | 552 | 1104 | 1558 | 2103 |
| | | 38 | 611 | 1222 | 1737 | 2426 |
| | | 40 | 680 | 1360 | 1936 | 2939 |
| | | 43 | 756 | 1511 | 2102 | 3045 |
| | | 45 | 834 | 1668 | 2390 | 3419 |
| | | 48 | 932 | 1864 | 2631 | 3894 |
| | | 50 | 994 | 1987 | 2837 | 4227 |
| | | 53 | 1072 | 2145 | 3138 | 4467 |
| | | 55 | 1120 | 2240 | 3539 | 4778 |
| | | 58 | 1193 | 2387 | 3789 | 4991 |
| | | 60 | 1284 | 2567 | 3860 | 5414 |
| | | 63 | 1337 | 2674 | 4175 | 5705 |
| | | 65 | 1394 | 2787 | 4289 | 5744 |
| | | 68 | 1459 | 2917 | 4547 | 5968 |
| | | 70 | 1553 | 3106 | 4629 | 6335 |

| Fan Speed | Working Mode | Water Inlet Temp (°C) | BM150 Capacity (W) | BM350 Capacity (W) | BM450 Capacity (W) | BM550 Capacity (W) |
|--------------|--------------|-----------------------|--------------------|--------------------|--------------------|--------------------|
| Medium Speed | Cooling | 7 | 684 | 1368 | 2005 | 2927 |
| | | 12 | 384 | 767 | 1116 | 1907 |
| | Heating | 35 | 496 | 992 | 1343 | 1899 |
| | | 38 | 588 | 1175 | 1518 | 2246 |
| | | 40 | 624 | 1248 | 1825 | 2658 |
| | | 43 | 735 | 1470 | 1976 | 2759 |
| | | 45 | 806 | 1612 | 2232 | 3365 |
| | | 48 | 898 | 1795 | 2523 | 3629 |
| | | 50 | 936 | 1871 | 2678 | 3667 |
| | | 53 | 993 | 1986 | 3065 | 4202 |
| | | 55 | 1028 | 2056 | 3322 | 4455 |
| | | 58 | 1131 | 2261 | 3499 | 4526 |
| | | 60 | 1169 | 2337 | 3666 | 5059 |
| | | 63 | 1218 | 2437 | 3806 | 5331 |
| | | 65 | 1305 | 2611 | 3951 | 5444 |
| | | 68 | 1359 | 2718 | 4134 | 5704 |
| | | 70 | 1456 | 2913 | 4336 | 6335 |


| Fan Speed | Working Mode | Water Inlet Temp (°C) | BM150 Capacity (W) | BM350 Capacity (W) | BM450 Capacity (W) | BM550 Capacity (W) |
|-----------|--------------|-----------------------|--------------------|--------------------|--------------------|--------------------|
| Low Speed | Cooling | 7 | 574 | 1148 | 1834 | 2536 |
| | | 12 | 376 | 752 | 1058 | 1590 |
| | Heating | 35 | 378 | 756 | 1166 | 1636 |
| | | 38 | 473 | 947 | 1273 | 2049 |
| | | 40 | 553 | 1106 | 1514 | 2290 |
| | | 43 | 604 | 1208 | 1665 | 2405 |
| | | 45 | 665 | 1330 | 1911 | 2886 |
| | | 48 | 722 | 1443 | 2163 | 3040 |
| | | 50 | 765 | 1531 | 2247 | 3131 |
| | | 53 | 813 | 1627 | 2604 | 3616 |
| | | 55 | 868 | 1736 | 2818 | 3843 |
| | | 58 | 965 | 1931 | 2948 | 4029 |
| | | 60 | 1011 | 2022 | 3279 | 4322 |
| | | 63 | 1046 | 2091 | 3401 | 4391 |
| | | 65 | 1089 | 2179 | 3492 | 4583 |
| | | 68 | 1193 | 2385 | 3564 | 4830 |
| | | 70 | 1229 | 2457 | 3681 | 4985 |

| Fan Speed | Working Mode | Water Inlet Temp (°C) | BM150 Capacity (W) | BM350 Capacity (W) | BM450 Capacity (W) | BM550 Capacity (W) |
|-----------------|--------------|-----------------------|--------------------|--------------------|--------------------|--------------------|
| Super Low Speed | Cooling | 7 | N/A | N/A | N/A | N/A |
| | | 12 | N/A | N/A | N/A | N/A |
| | Heating | 35 | 366 | 732 | 1060 | 1535 |
| | | 38 | 405 | 810 | 1231 | 1761 |
| | | 40 | 494 | 989 | 1474 | 2047 |
| | | 43 | 556 | 1113 | 1566 | 2203 |
| | | 45 | 571 | 1142 | 1682 | 2635 |
| | | 48 | 662 | 1323 | 1861 | 2807 |
| | | 50 | 692 | 1384 | 2036 | 2822 |
| | | 53 | 729 | 1459 | 2337 | 3237 |
| | | 55 | 754 | 1509 | 2468 | 3485 |
| | | 58 | 844 | 1687 | 2641 | 3816 |
| | | 60 | 857 | 1715 | 2906 | 3912 |
| | | 63 | 932 | 1865 | 2987 | 3965 |
| | | 65 | 968 | 1936 | 3021 | 4089 |
| | | 68 | 1017 | 2033 | 3090 | 4387 |
| | | 70 | 1089 | 2178 | 3360 | 4555 |



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