POOLEX

VERTIGO **FI**

FULL INVERTER

- Manuel d’installation et d’utilisation
- Installation and user manual
- Manual de usuario y instalación
- Manuale d’installazione e d’uso
- Installations und Gebrauchsanleitung
- Installatieen en gebruikershandleiding

WWW.POOLEX.FR

Cher client,

Nous vous remercions pour votre achat et pour la confiance que vous accordez à nos produits.

Nos produits sont le résultat d'années de recherche dans le domaine de la conception et de la production de pompe à chaleur pour piscine et spa. Notre ambition, vous fournir un produit de qualité aux performances hors normes.

Nous avons réalisé ce manuel avec le plus grand soin afin que vous puissiez tirer le meilleur de votre pompe à chaleur Poolex.

Dear customer,

Thank you for your purchase and your trust in our products.

Our products are the result of years of research in the design and manufacture of heat pumps for pools. Our goal is to deliver high-quality products with exceptional performance.

We took great care to put together this manual so you can get the most out of your Poolex heat pump.

Estimado(a) cliente,

Agradecemos que haya comprado este producto y que haya confiado en nuestra empresa.

Nuestros productos son el fruto de años de investigación en el sector del diseño y de la producción de bombas de calor para las piscinas. Nuestro objetivo es ofrecerle un producto de calidad con un rendimiento excepcional.

Hemos redactado este manual de tal forma que podrá aprovechar al máximo su Poolex bomba de calor.

Gentile cliente,

La ringraziamo per il Suo acquisto e per la sua fiducia nei nostri prodotti.

Essi sono il risultato di anni di ricerche nella progettazione e produzione di pompe di calore per piscine. Il nostro scopo è di fornir. Le un prodotto di qualità con prestazioni fuori dal comune.

Abbiamo preparato questo manuale con la massima cura affinché Lei possa sfruttare al meglio la Sua pompa di calore Poolex.

Sehr geehrter Kunde,

Vielen Dank für Ihren Kauf und das damit verbundene Vertrauen in unsere Produkte.

Unsere Produkte sind das Ergebnis einer jahrelangen Forschungsarbeit auf dem Gebiet der Konstruktion und Fertigung von Schwimmbecken-Wärmepumpen. Wir haben den Anspruch, Ihnen ein qualitativ hochwertiges Produkt mit hervorragenden Leistungseigenschaften zu liefern.

Die vorliegende Anleitung wurde mit größter Sorgfalt erstellt und soll Ihnen dabei helfen, die Vorzüge Ihrer Poolex-Wärmepumpe bestmöglich zu nutzen.

Geachte klant,

Bedankt voor uw aankoop en uw vertrouwen in onze producten.

Ons doel is om u een uitzonderlijk goed prester- end kwaliteitsproduct te leveren. Het is onze ambitie om u een kwaliteitsvol product met uitstekende prestaties te leveren.

We hebben deze handleiding met de grootste zorg samengesteld, zodat u het maximale uit uw Poolex-warmtepomp kunt halen.

WARNING

This heat pump contains a flammable refrigerant R32.

Any intervention on the refrigerant circuit is prohibited without a valid authorization.

Before working on the refrigerant circuit, the following precautions are necessary for safe work.

1. Work procedure

The work must be carried out according to a controlled procedure, in order to minimize the risk of presence of flammable gases or vapors during the execution of the works.

2. General work area

All persons in the area must be informed of the nature of the work in progress. Avoid working in a confined area. The area around the work area should be divided, secured and special attention should be paid to nearby sources of flame or heat.

3. Verification of the presence of refrigerant

The area should be checked with a suitable refrigerant detector before and during work to ensure that there is no potentially flammable gas. Make sure that the leak detection equipment used is suitable for flammable refrigerants, ie it does not produce sparks, is properly sealed or has internal safety.

4. Presence of fire extinguisher

If hot work is to be performed on the refrigeration equipment or any associated part, appropriate fire extinguishing equipment must be available. Install a dry powder or CO2 fire extinguisher near the work area.

5. No source of flame, heat or spark

It is totally forbidden to use a source of heat, flame or spark in the direct vicinity of one or more parts or pipes containing or having contained a flammable refrigerant. All sources of ignition, including smoking, must be sufficiently far from the place of installation, repair, removal and disposal, during which time a flammable refrigerant may be released into the surrounding area. Before starting work, the environment of the equipment should be checked to ensure that there is no risk of flammability. «No smoking» signs must be posted.

6. Ventilated area

Make sure the area is in the open air or is properly ventilated before working on the system or performing hot work. Some ventilation must be maintained during the duration of the work.

7. Controls of refrigeration equipment

When electrical components are replaced, they must be suitable for the intended purpose and the appropriate specifications. Only the parts of the manufacturer can be used. If in doubt, consult the technical service of the manufacturer.

The following controls should be applied to installations using flammable refrigerants:

- *The size of the load is in accordance with the size of the room in which the rooms containing the refrigerant are installed;*
- *Ventilation and air vents work properly and are not obstructed;*
- *If an indirect refrigeration circuit is used, the secondary circuit must also be checked.*
- *The marking on the equipment remains visible and legible. Illegible marks and signs must be corrected;*
- *Refrigeration pipes or components are installed in a position where they are unlikely to be exposed to a substance that could corrode components containing refrigerant*

8. Verification of electrical appliances

Repair and maintenance of electrical components must include initial safety checks and component inspection procedures. If there is a defect that could compromise safety, no power supply should be connected to the circuit until the problem is resolved.

Initial security checks must include:

- *That the capacitors are discharged: this must be done in a safe way to avoid the possibility of sparks;*
- *No electrical components or wiring are exposed during loading, recovery or purging of the refrigerant gas system;*
- *There is continuity of grounding.*

PLEASE READ CAREFULLY.

These installation instructions are an integral part of the product.

They must be given to the installer and retained by the user.

If the manual is lost, please consult the website:

www.poolex.fr

The instructions and recommendations contained in this manual should be read carefully and understood since they provide valuable information concerning the heat pump's safe handling and operation. **Keep this manual in an accessible place for easy future reference.**

Installation must be carried out by a qualified professional person in accordance with current regulations and the manufacturer's instructions. An installation error may cause physical injury to persons or animals as well as mechanical damage for which the manufacturer can under no circumstances be held responsible.

After unpacking the heat pump, please check the contents in order to report any damage.

Prior to connecting the heat pump, ensure that the information provided in this manual is compatible with the actual installation conditions and does not exceed the maximum limits authorised for this particular product.

In the event of a defect and/or malfunction of the heat pump, the electricity supply must be disconnected and no attempt made to repair the fault.

Repairs must be undertaken only by an authorised technical service organisation using original replacement parts. Failure to comply with the above-mentioned clauses may have an adverse effect on the heat pump's safe operation.

To guarantee the heat pump's efficiency and satisfactory operation, it is important to ensure its regular maintenance in accordance with the instructions provided.

If the heat pump is sold or transferred, always make sure that all technical documentation is transmitted with the equipment to the new owner.

This heat pump is designed solely for heating a swimming pool. Any other use must be considered as being inappropriate, incorrect or even hazardous.

Any contractual or non-contractual liability of the manufacturer/distributor shall be deemed null and void for damage caused by installation or operational errors, or due to non-compliance with the instructions provided in this manual or with current installation norms applicable to the equipment covered by this document.

CONTENTS

1. GENERAL

1. 1. General Terms of Delivery

All equipment, even if shipped 'free of carriage and packing', is dispatched at the consignee's own risk

The person responsible for receiving the equipment must carry out a visual inspection to identify any damage to the heat pump during transport (refrigerant system, body panels, electrical control box, frame). He/she must note down on the carrier's delivery note any remarks concerning damage caused during transport and confirm them to the carrier by registered letter within 48 hours.

The equipment must always be stored and transported vertically on a pallet and in its original packaging. If it is stored or transported horizontally, wait at least 24 hours before switching it on.

1. 2. Safety instructions

⚠ **WARNING: Please read carefully the safety instructions before using the equipment.**
The following instructions are essential for safety so please strictly comply with them.

During installation and servicing

Only a qualified person may undertake installation, start-up, servicing and repairs, in compliance with current standards.

Before operating or undertaking any work on the equipment (installation, commissioning, usage, servicing), the person responsible must be aware of all the instructions in the heat pump's installation manual as well as the technical specifications.

Under no circumstances install the equipment close to a source of heat, combustible materials or a building's air intake.

If installation is not in a location with restricted access, a heat pump protective grille must be fitted.

To avoid severe burns, do not walk on pipework during installation, repairs or maintenance.

To avoid severe burns, prior to any work on the refrigerant system, turn off the heat pump and wait several minutes before placing temperature and pressure sensors.

Check the refrigerant level when servicing the heat pump.

Check that the high and low pressure switches are correctly connected to the refrigerant system and that they turn off the electrical circuit if tripped during the equipment's annual leakage inspection.

Check that there is no trace of corrosion or oil stains around the refrigerant components.During use

To avoid serious injuries, never touch the fan when it is operating.

Keep the heat pump out of the reach of children to avoid serious injuries caused by the heat exchanger's blades.

Never start the equipment if there is no water in the pool or if the circulating pump is stopped.

Check the water flow rate every month and clean the filter if necessary.

During use

Never touch the fan when it is running, as this could cause serious injury.

Do not leave the heat pump within the reach of children, as the fins of the heat exchanger could cause serious injury.

Never switch the unit on if there is no water in the pool or if the circulation pump is switched off.

Check the water flow every month and clean the filter if necessary.

During cleaning

- Switch off the equipment's electricity supply.
- Close the water inlet and outlet valves.
- Do not insert anything into the air or water intakes or outlets.
- Do not rinse the equipment with HP water.

During repairs

Carry out work on the refrigerant system in accordance with current safety regulations.

Brazing should be performed by a qualified welder.

When replacing a defective refrigerant component, use only parts certified by our technical department.

In case of piping replacement, only copper tubing conforming to country standards may be used for troubleshooting.

When pressure-testing to detect leaks:

- To avoid the risks of fire or explosion, never use oxygen or dry air.
- Use dehydrated nitrogen or a mixture of nitrogen and refrigerant.
- The low and high side test pressure must not exceed 42 bar.

1. 3. Water treatment

Poolex heat pumps for swimming pools can be used with all types of water treatment systems.

Nevertheless, it is essential that the treatment system (chlorine, pH, bromine and/or salt chlorinator metering pumps) is installed after the heat pump in the hydraulic circuit.

To avoid any deterioration to the heat pump, the water's pH must be maintained between 6.9 and 8.0.

2. DESCRIPTION

2. 1. Package contents

- ✓ Heat pump
- ✓ 2 hydraulic inlet/outlet connectors (50mm diameter)
- ✓ Condensation draining kit
- ✓ Winter storage cover
- ✓ 4 anti-vibration pads (fastenings not supplied)
- ✓ This installation and user manual

2. 2. General characteristics

A Poolex heat pump has the following features:

- ▶ CE certification and complies with the RoHS European directive.
- ▶ High performance with up to 80% energy savings compared to a conventional heating system.
- ▶ Clean, efficient and environmentally friendly R32 refrigerant.
- ▶ Reliable high output leading brand compressor.
- ▶ Wide hydrophilic aluminium evaporator for use at low temperatures.
- ▶ User-friendly intuitive remote control.
- ▶ A hull in ABS and powder-coated steel that is ultra-resistant, UV-resistant and easy to maintain.
- ▶ Designed to be silent.
- ▶ Dual antifreeze system to avoid frost damage:

  Revolutionary exchanger with patented antifreeze system.
  A smart monitoring system to preserve the pipework and liner without emptying the pool in winter.

2. 3. Technical specifications

Test conditions	Poolex Vertigo Fi	55	75	95
Air [1] 26°C Water [2] 26°C BOOST MODE	Heating power (kW)	7.70	10.35	13.27
	Consumption (kW)	1.12~0.098	1.50~0.129	1.93~0.167
	COP (Coeff. of performance)	**6.84**	**6.84**	**6.84**
Air [1] 26°C Water [2] 26°C SMART MODE	Heating power (kW)	6.16	8.28	10.62
	Consumption (kW)	1.12~0.098	1.50~0.129	1.93~0.167
	COP (Coeff. of performance)	**9.92**	**9.92**	**9.92**
Air [1] 26°C Water [2] 26°C SILENCE MODE	Heating power (kW)	3.85	5.18	6.64
	Consumption (kW)	1.12~0.098	1.50~0.129	1.93~0.167
	COP (Coeff. of performance)	**13.68**	**13.00**	**14.02**
Air [1] 15°C Water [2] 26°C BOOST MODE	Heating power (kW)	5.76	7.62	9.67
	Consumption (kW)	1.15~0.153	1.52~0.20	1.93~0.264
	COP (Coeff. of performance)	**5.00**	**5.01**	**5.01**
Air [1] 15°C Water [2] 26°C SMART MODE	Heating power (kW)	4.61	6.10	7.74
	Consumption (kW)	1.15~0.153	1.52~0.20	1.93~0.264
	COP (Coeff. of performance)	**6.00**	**6.01**	**6.01**
Air [1] 15°C Water [2] 26°C SILENCE MODE	Heating power (kW)	2.88	3.81	4.84
	Consumption (kW)	1.15~0.153	1.52~0.20	1.93~0.264
	COP (Coeff. of performance)	**6.50**	**6.51**	**6.51**
Air [1] 35°C Water [2] 30°C BOOST MODE	Cooling capacity (kW)	3.89	5.13	5.20
	Consumption (kW)	1.02~0.26	1.59~0.34	1.91~0.445
	EER (Energy Efficiency Ratio)	**3.81**	**3.23**	**5.20**
Air [1] 35°C Water [2] 30°C SMART MODE	Cooling capacity (kW)	3.11	4.10	4.16
	Consumption (kW)	1.02~0.26	1.59~0.34	1.91~0.445
	EER (Energy Efficiency Ratio)	**4.57**	**3.88**	**5.25**
Air [1] 35°C Water [2] 30°C SILENCE MODE	Cooling capacity (kW)	1.95	2.57	2.60
	Consumption (kW)	1.02~0.26	1.59~0.34	1.91~0.445
	EER (Energy Efficiency Ratio)	**4.95**	**4.20**	**5.30**
Maximum power (kW)		1,6	2	2,8
Maximum current (A)		7,10	8,87	12,42
Electricity supply		220-240V ~ 50Hz		
Protection		IPX4		
Heating temperature range		15°C~40°C		
Cooling temperature range		8°C~28°C		
Operating temperature range		Hot: -10°C~43°C Cold: 20°C~40°C		
Unit dimensions L x W x H (mm)		510*510*697		
Unit Weight (kg)		45	46	50
Recommend pool size (m^3)		30-45	40-55	50-70
Sound pressure level at 1 m (dBA) [3]		36~45	38~46	38~46
Sound pressure level at 10 m (dBA) [3]		19~27	20~28	20~28
Hydraulic connection (mm)		PVC 50mm		
Heat exchanger		PVC tank and Titanium coil		
Min. / Max. water flow rate (m^3/h)		2,4	3,2	4.1
Compressor		GMCC		
Compressor type		Single-Rotary		Twin-Rotary
Refrigerant		R32		
Load loss (kPa)		10	12	22
Remote control		Fixed touch screen control		
Mode		Heating / Cooling / Auto		

The technical specifications of our heat pumps are provided for information purposes only. We reserve the right to make changes without prior notice.

[1] Ambient air temperature
[2] Initial water temperature
[3] Noise at 1 m, at 4 m and at 10 m in accordance with Directives EN ISO 3741 and EN ISO 354
[4] Calculated for an in-ground private swimming pool covered with a bubble cover.

2. DESCRIPTION

Test conditions	Poolex Vertigo Fi	125	155	155T
Air [1] 26°C Water [2] 26°C BOOST MODE	Heating power (kW)	16.17~3.16	20.17~4.05	20.17~4.05
	Consumption (kW)	2.7~0.206	3.33~0.267	3.33~0.267
	COP (Coeff. of performance)	**15.34~6.0**	**15.17~6.07**	**15.17~6.07**
Air [1] 26°C Water [2] 26°C SMART MODE	Heating power (kW)	16.17~3.16	20.17~4.05	20.17~4.05
	Consumption (kW)	2.7~0.206	3.33~0.267	3.33~0.267
	COP (Coeff. of performance)	**15.34~6.0**	**15.17~6.07**	**15.17~6.07**
Air [1] 26°C Water [2] 26°C SILENCE MODE	Heating power (kW)	10.32~3.16	13.11~4.05	13.11~4.05
	Consumption (kW)	1.42~0.206	1.81~0.267	1.81~0.267
	COP (Coeff. of performance)	**15.34~7.25**	**15.17~7.24**	**15.17~7.24**
Air [1] 15°C Water [2] 26°C BOOST MODE	Heating power (kW)	12.00~2.43	15.25~3.15	15.25~3.15
	Consumption (kW)	2.65~0.323	3.24~0.418	3.24~0.418
	COP (Coeff. of performance)	**7.52~4.53**	**7.54~4.72**	**7.54~4.72**
Air [1] 15°C Water [2] 26°C SMART MODE	Heating power (kW)	12.00~2.43	15.25~3.15	15.25~3.15
	Consumption (kW)	2.65~0.323	3.24~0.418	3.24~0.418
	COP (Coeff. of performance)	**7.52~4.53**	**7.54~4.72**	**7.54~4.72**
Air [1] 15°C Water [2] 26°C SILENCE MODE	Heating power (kW)	7.8~2.43	9.91~3.15	9.91~3.15
	Consumption (kW)	1.46~0.323	1.86~0.418	1.86~0.418
	COP (Coeff. of performance)	**7.52~5.32**	**7.54~5.32**	**7.54~5.32**
Air [1] 35°C Water [2] 30°C BOOST MODE	Cooling capacity (kW)	8.00~2.70	8.26~3.39	8.26~3.39
	Consumption (kW)	2.50~0.57	2.53~0.713	2.53~0.713
	EER (Energy Efficiency Ratio)	**4.74~3.20**	**4.75~3.26**	**4.75~3.26**
Air [1] 35°C Water [2] 30°C SMART MODE	Cooling capacity (kW)	8.00~2.70	8.26~3.39	8.26~3.39
	Consumption (kW)	2.50~0.57	2.53~0.713	2.53~0.713
	EER (Energy Efficiency Ratio)	**4.74~3.20**	**4.75~3.26**	**4.75~3.26**
Air [1] 35°C Water [2] 30°C SILENCE MODE	Cooling capacity (kW)	5.20~2.70	5.36~3.39	5.36~3.39
	Consumption (kW)	1.39~0.57	1.43~0.713	1.43~0.713
	EER (Energy Efficiency Ratio)	**4.74~3.73**	**4.75~3.73**	**4.75~3.73**
Maximum power (kW)		3,1	3,7	3,7
Maximum current (A)		16,9	20,1	8,46
Rated Power Input (kW)		2,68	3,69	3,69
Rated Current (A)		11,68	16,53	5,5
Electricity supply		220-240V ~ 50Hz		380-415V / 3N~ / 50Hz
Protection		IPX4		
Heating temperature range		15°C~40°C		
Cooling temperature range		8°C~28°C		
Operating temperature range		Hot: -10°C~43°C Cold: 20°C~40°C		
Unit dimensions L x W x H (mm)		575*575*790		
Unit Weight (kg)		63	68	70
Recommend pool size (m^3)		40~70	40~75	40~75
Sound pressure level at 1 m (dBA) [3]		41~50	42~52	42~52
Sound pressure level at 10 m (dBA) [3]		23~31	24~32	24~32
Hydraulic connection (mm)		PVC 50mm		
Heat exchanger		PVC tank and Titanium coil		
Min. / Max. water flow rate (m^3/h)		5,2	6,5	6,5
Compressor		GMCC		
Compressor type		Twin-Rotary		
Refrigerant		R32		
Load loss (kPa)		12	7	7
Remote control		Fixed touch screen control		
Mode		Heating / Cooling / Auto		

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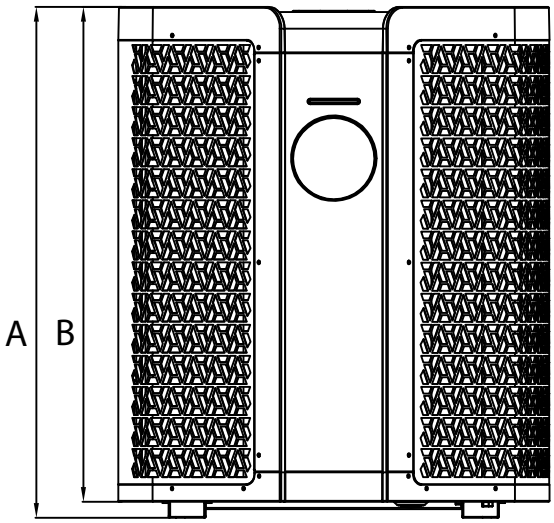
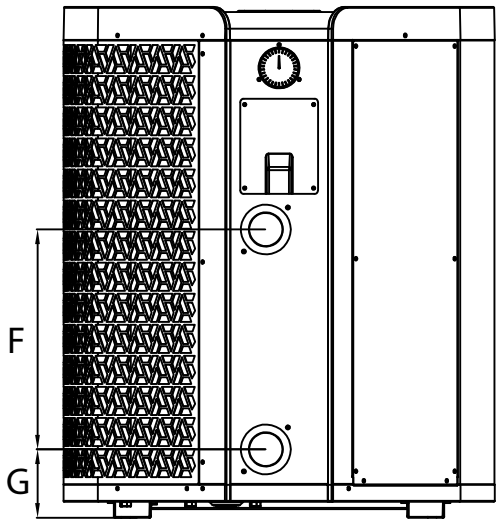
[1] Ambient air temperature
[2] Initial water temperature
[3] Noise at 1 m, at 4 m and at 10 m in accordance with Directives EN ISO 3741 and EN ISO 354
[4] Calculated for an in-ground private swimming pool covered with a bubble cover.

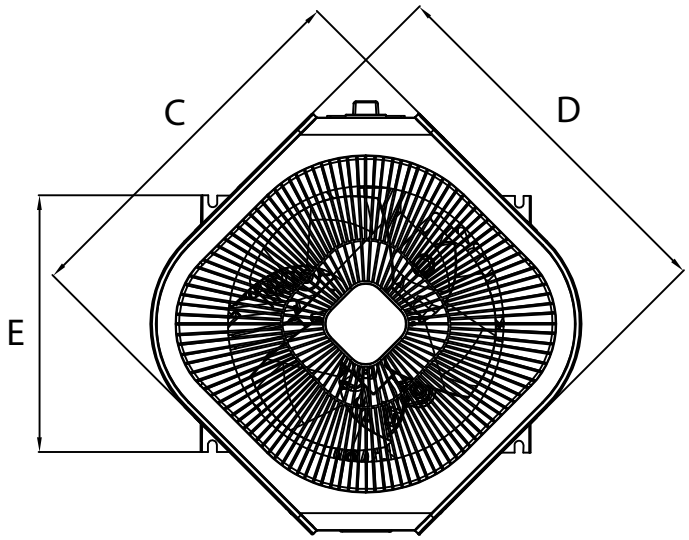
2. DESCRIPTION

Test conditions	Poolex Vertigo Fi	200	240	200T	240T	300T
Air (1) 26°C Water (2) 26°C BOOST MODE	Heating power (kW)	26.05~5.17	31.23~6.31	26.05~5.17	31.23~6.31	37.41~7.79
	Consumption (kW)	4.17~0.347	4.92~0.411	4.17~0.347	4.92~0.411	6.03~0.507
	COP (Coeff. of performance)	**14.90~6.24**	**15.35~6.34**	**14.90~6.24**	**15.35~6.34**	**15.36~6.20**
Air (1) 26°C Water (2) 26°C SMART MODE	Heating power (kW)	26.05~5.17	31.23~6.31	26.05~5.17	31.23~6.31	37.41~7.79
	Consumption (kW)	4.17~0.347	4.92~0.411	4.17~0.347	4.92~0.411	6.03~0.507
	COP (Coeff. of performance)	**14.90~6.24**	**15.35~6.34**	**14.90~6.24**	**15.35~6.34**	**15.36~6.20**
Air (1) 26°C Water (2) 26°C SILENCE MODE	Heating power (kW)	16.59~5.17	20.34~6.31	16.59~5.17	20.34~6.31	25.39~7.79
	Consumption (kW)	2.26~0.347	2.82~0.411	2.26~0.347	2.82~0.411	3.58~0.507
	COP (Coeff. of performance)	**14.90~7.33**	**15.35~7.20**	**14.90~7.33**	**15.35~7.20**	**15.36~7.09**
Air (1) 15°C Water (2) 26°C BOOST MODE	Heating power (kW)	20.06~4.15	24.24~5.35	20.06~4.15	24.24~5.35	29.03~6.31
	Consumption (kW)	4.41~0.564	4.99~0.709	4.41~0.564	4.99~0.709	5.97~0.839
	COP (Coeff. of performance)	**7.36~4.54**	**7.55~4.85**	**7.36~4.54**	**7.55~4.85**	**7.52~4.86**
Air (1) 15°C Water (2) 26°C SMART MODE	Heating power (kW)	20.06~4.15	24.24~5.35	20.06~4.15	24.24~5.35	29.03~6.31
	Consumption (kW)	4.41~0.564	4.99~0.709	4.41~0.564	4.99~0.709	5.97~0.839
	COP (Coeff. of performance)	**7.36~4.54**	**7.55~4.85**	**7.36~4.54**	**7.55~4.85**	**7.52~4.86**
Air (1) 15°C Water (2) 26°C SILENCE MODE	Heating power (kW)	13.17~4.15	15.62~5.35	13.17~4.15	15.62~5.35	19.57~6.31
	Consumption (kW)	2.46~0.564	2.93~0.709	2.46~0.564	2.93~0.709	3.74~0.839
	COP (Coeff. of performance)	**7.36~5.35**	**7.55~5.32**	**7.36~5.35**	**7.55~5.32**	**7.52~5.23**
Air (1) 35°C Water (2) 27°C BOOST MODE	Cooling capacity (kW)	13.04~4.32	15.76~5.24	13.04~4.32	15.76~5.24	15.87~6.51
	Consumption (kW)	4.09~0.909	4.62~1.10	4.09~0.909	4.62~1.10	4.44~1.36
	EER (Energy Efficiency Ratio)	**4.75~3.18**	**4.76~3.40**	**4.75~3.18**	**4.76~3.40**	**4.79~3.39**
Air (1) 35°C Water (2) 27°C SMART MODE	Cooling capacity (kW)	13.04~4.32	15.76~5.24	13.04~4.32	15.76~5.24	15.87~6.51
	Consumption (kW)	4.09~0.909	4.62~1.10	4.09~0.909	4.62~1.10	4.44~1.36
	EER (Energy Efficiency Ratio)	**4.75~3.18**	**4.76~3.40**	**4.75~3.18**	**4.76~3.40**	**4.79~3.39**
Air (1) 35°C Water (2) 27°C SILENCE MODE	Cooling capacity (kW)	8.47~4.32	10.24~5.24	8.47~4.32	10.24~5.24	10.31~6.51
	Consumption (kW)	2.27~0.909	2.64~1.10	2.27~0.909	2.64~1.10	2.65~1.36
	EER (Energy Efficiency Ratio)	**4.75~3.73**	**4.76~3.87**	**4.75~3.73**	**4.76~3.87**	**4.79~3.88**
Maximum power (kW)		5,8	6,5	5,8	6,5	8
Maximum current (A)		25,73	28,84	10,37	11,62	15,21
Electricity supply		220-240V ~ 50Hz		380-415V / 3N~ / 50Hz		
Protection		IPX4				
Heating temperature range		15°C~40°C				
Cooling temperature range		8°C~28°C				
Operating temperature range		Hot: -10°C~43°C Cold: 20°C~40°C				
Unit dimensions L x W x H (mm)		680×680×1080				
Unit Weight (kg)		89	97	91	99	113
Recommend pool size (m^3)		45~80	55~90	45~80	55~90	65~100
Sound pressure level at 1 m (dBA) (3)		47~56	48~57	48~57	48~57	49~59
Sound pressure level at 10 m (dBA) (3)		28~37	29~38	29~38	29~38	30~39
Hydraulic connection (mm)		PVC 50mm				
Heat exchanger		PVC tank and Titanium coil				
Min. / Max. water flow rate (m^3/h)		8,8	10,5	8,8	10,5	12,5
Compressor		GMCC				MITSUBISHI
Compressor type		Twin-Rotary				
Refrigerant		R32				
Load loss (kPa)		28	30	28	30	30
Remote control		Fixed touch screen control				
Mode		Heating / Cooling / Auto				

2. 4. Dimensions of the device





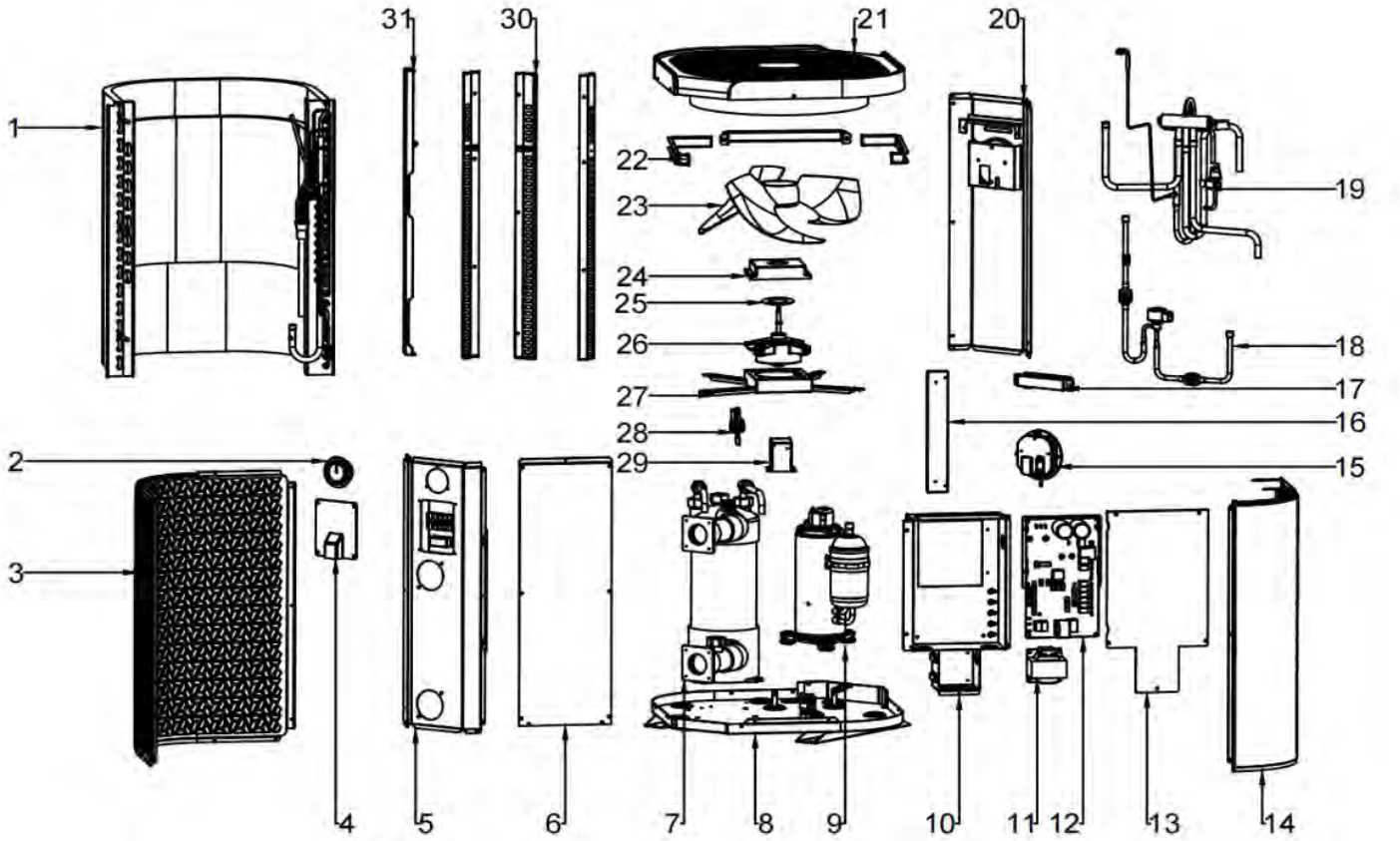


Dimensions in mm

	A	B	C	D	E	F	G
55 75 95	697	675	510	510	350	300	93
125 155 / 155T	790	770	575	575	424	300	153
200 / 200T 240 / 240T 300T	1081	1061	680	680	514	350	101

2. 5. Exploded view

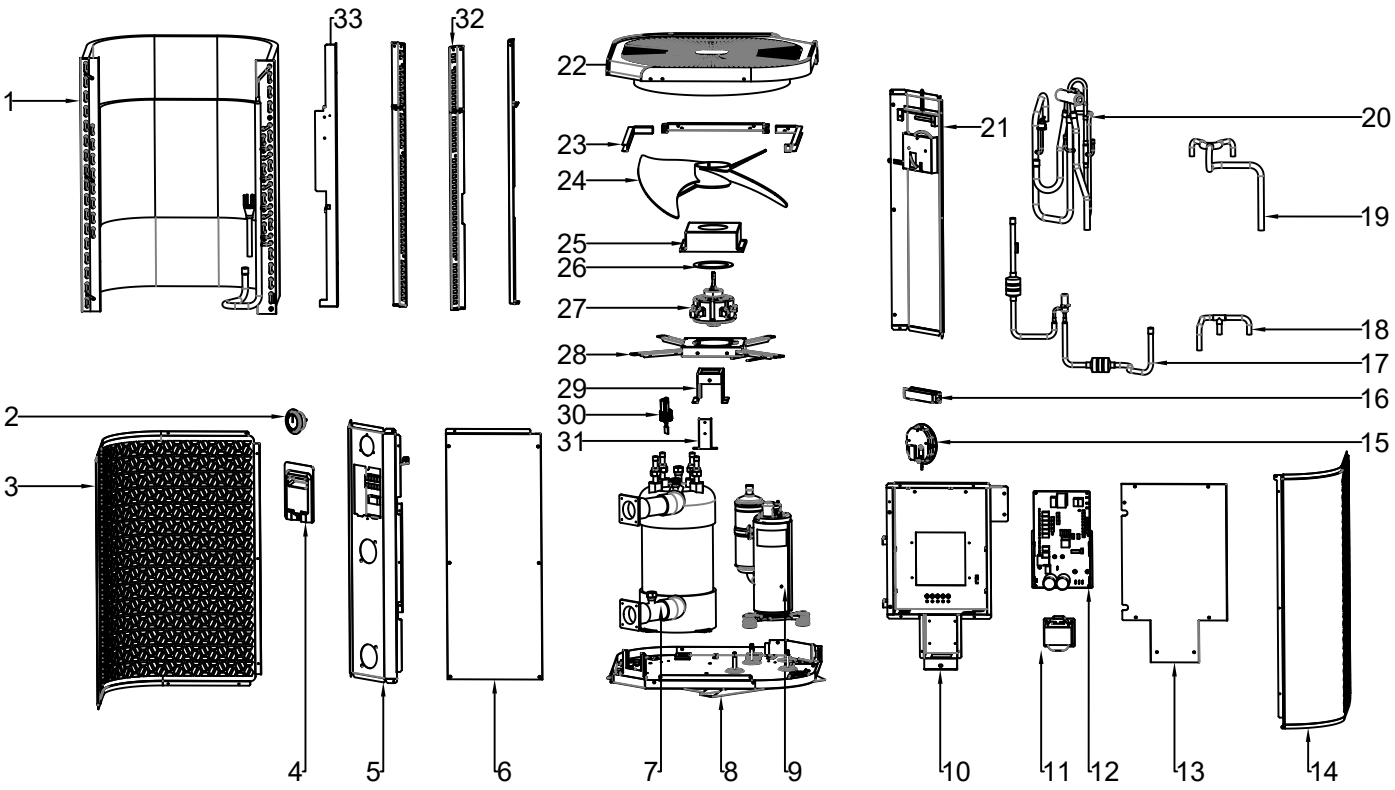
55 / 75 / 95



1. Evaporator
2. Pressure gauge
3. Right side panel
4. Therminal cover
5. Back plate
6. Left back panel
7. Heat exchanger
8. Chassis
9. Compressor
10. Electrical box
11. Reactor
12. PCB board
13. Electrical box cover
14. Left panel
15. Touch controller
16. Fixed panel
17. LED indicator
18. EEV
19. 4-way valve
20. Front panel
21. Top cover
22. Top frame
23. Fan blade
24. Motor waterproof box
25. Silicon cover ring
26. Fan motor
27. Motor holder
28. Water flow switch
29. Support plate
30. Column 1
31. Column 2

2. DESCRIPTION

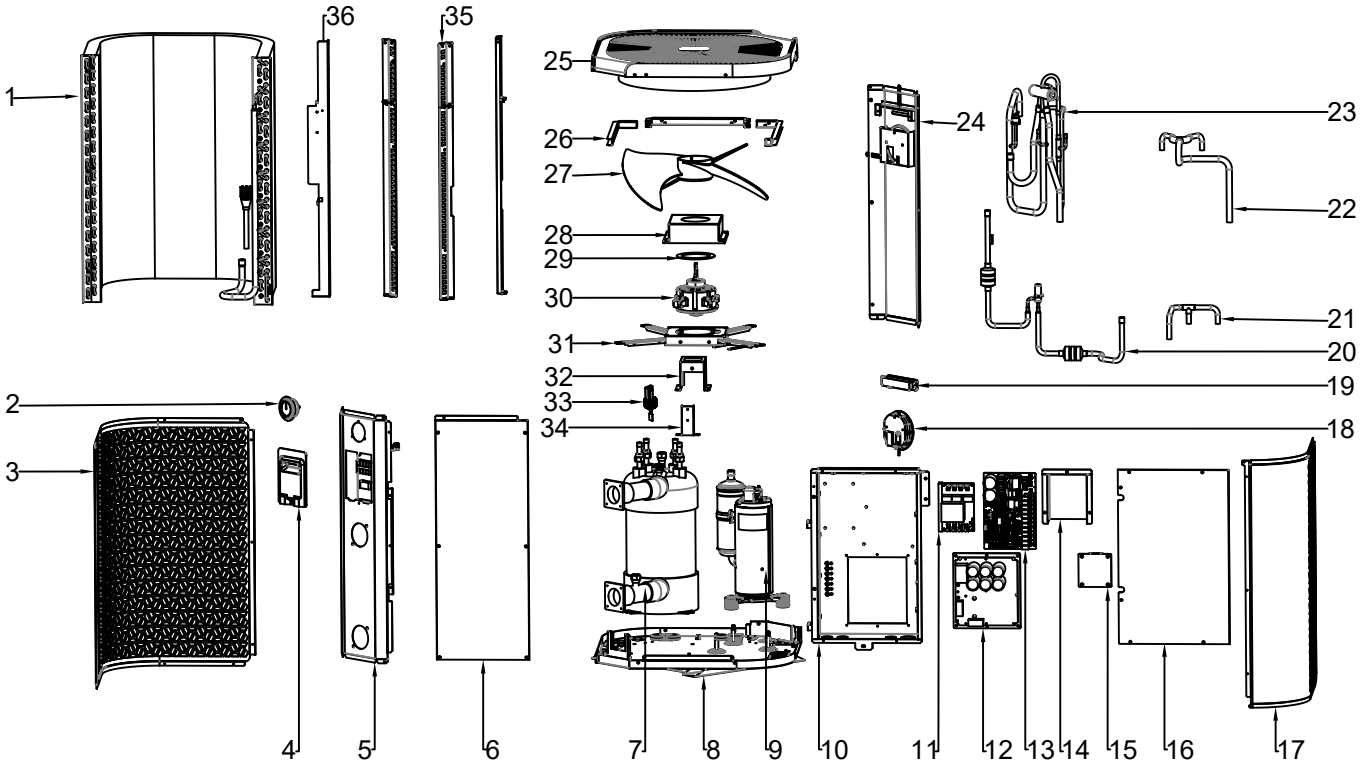
125



1. Evaporator
2. Pressure gauge
3. Right side panel
4. Thermal cover
5. Back plate
6. Left rear panel
7. Heat exchanger
8. Frame
9. Compressor
10. Electrical box
11. Reactor
12. PCB board
13. Electrical box cover
14. Left panel
15. Touch controller
16. LED indicator
17. EEV
18. Condensate outlet hose assembly
19. Condensate inlet hose assembly
20. 4-way valve
21. Front panel
22. Top cover
23. Top frame
24. Fan blade
25. Waterproof motor housing
26. Silicone cover ring
27. Fan motor
28. Motor support
29. Mounting plate
30. Water flow switch
31. Support plate
32. Column 1
33. Column 2

2. DESCRIPTION

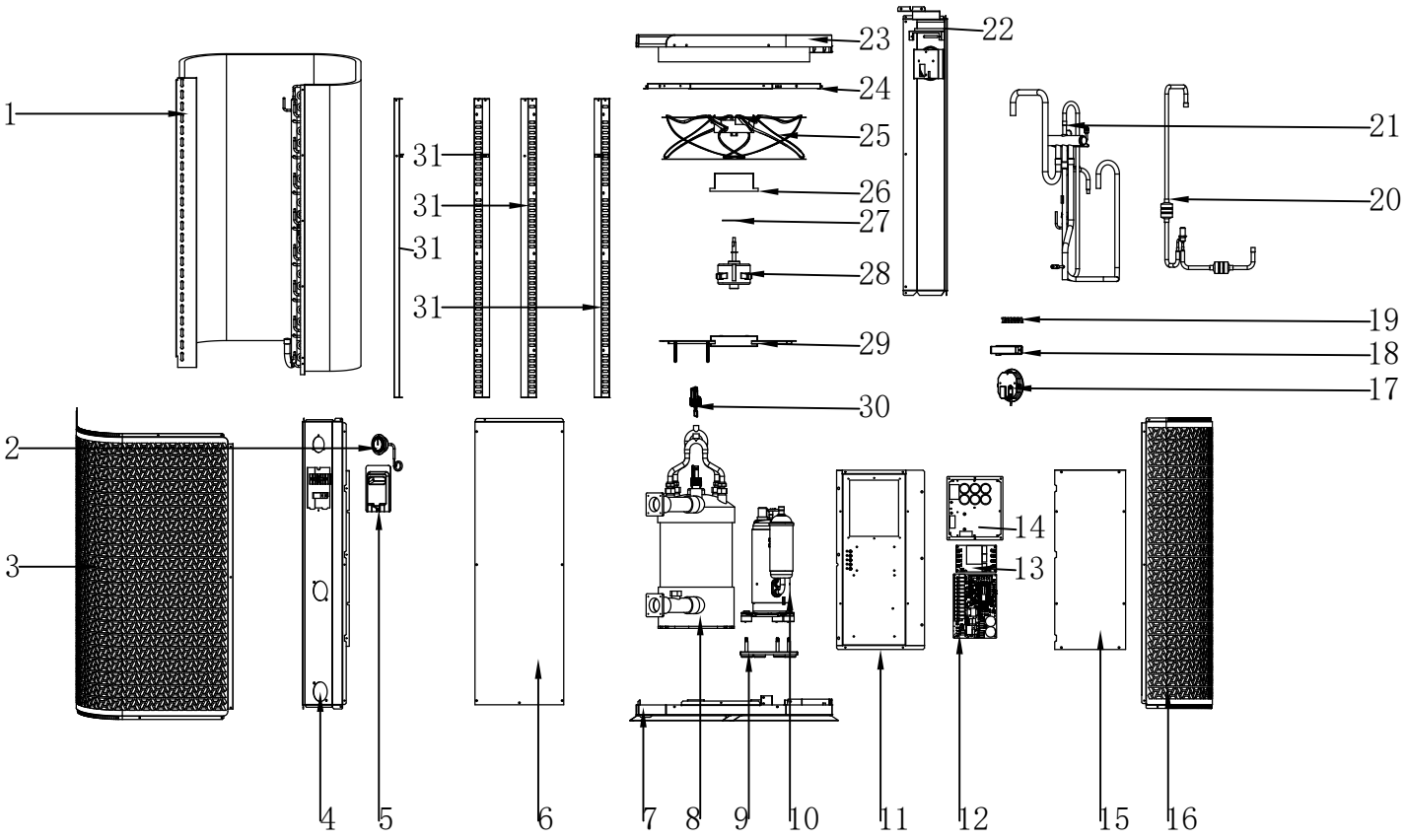
155 / 155T



1. Evaporator
2. Pressure gauge
3. Right side panel
4. Thermal cover
5. Back plate
6. Left rear panel
7. Heat exchanger
8. Frame
9. Compressor
10. Electrical box
11. Filter card
12. Control module
13. PCB board
14. Reactor watertight box (155T)
15. Reactor (155T)
16. Electrical box cover
17. Left panel
18. Touch controller
19. LED indicator
20. EEV
21. Condensate outlet hose assembly
22. Condensate inlet hose assembly
23. 4-way valve
24. Front panel
25. Top cover
26. Top frame
27. Fan blade
28. Waterproof motor housing
29. Silicone cover ring
30. Fan motor
31. Motor support
32. Mounting plate
33. Water flow switch
34. Support plate
35. Column 1
36. Column 2

2. DESCRIPTION

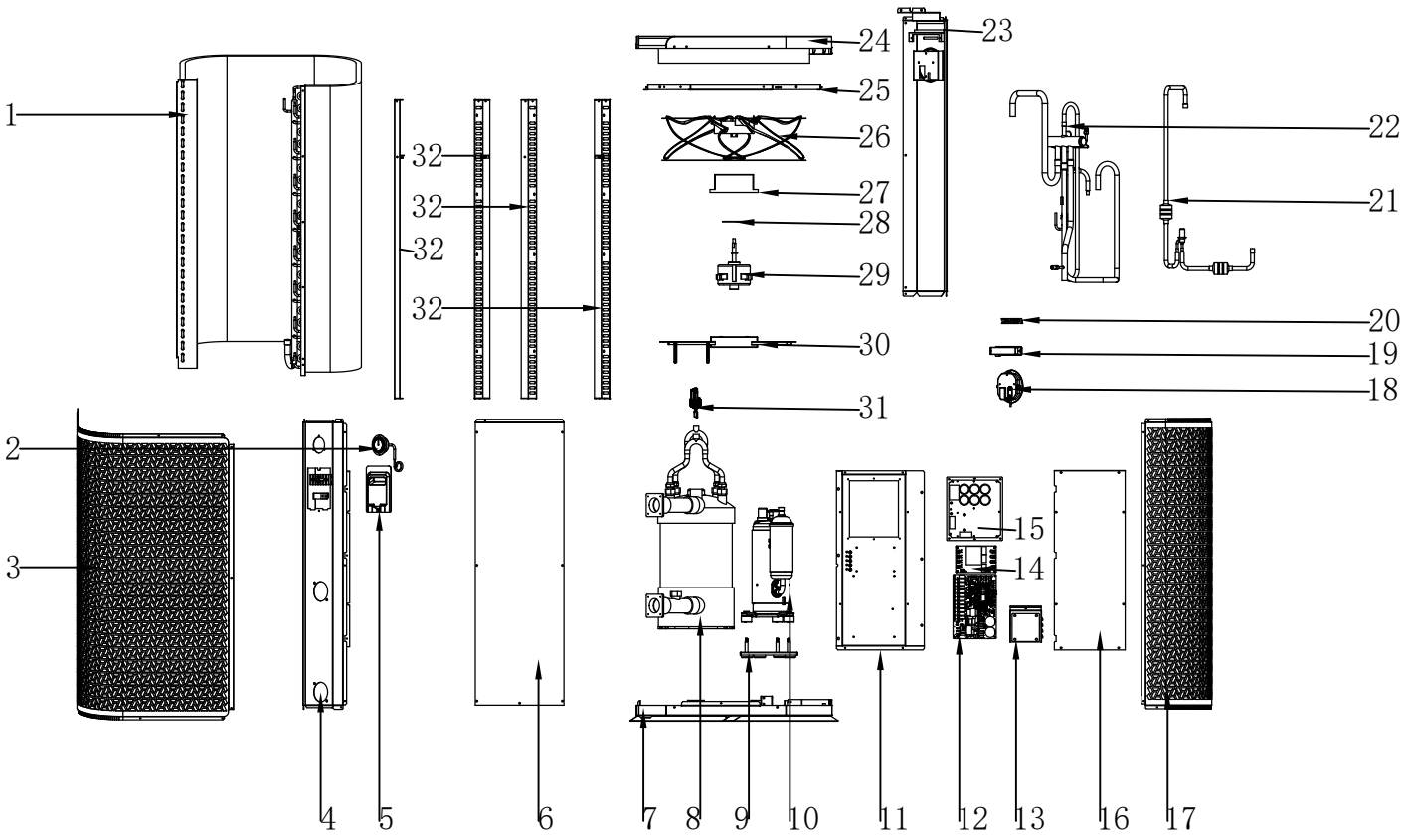
200 / 240



1. Evaporator
2. Pressure gauge
3. Right side panel
4. Back plate
5. Terminal cover
6. Left back panel
7. Chassis
8. Heat exchanger
9. Compressor mounting plate
10. Compressor
11. Electrical box
12. PCB board
13. Filter board
14. Driver Module
15. Electrical box cover
16. Left panel
17. Touch controller
18. LED indicator
19. POOLEX logo
20. EEV
21. 4-wayvalve
22. Front panel
23. Top cover
24. Top frame
25. Fan blade
26. Motor waterproof box
27. Silicon cover ring
28. Fan motor
29. Motor holder
30. Water flow switch
31. Columns

2. DESCRIPTION

200T / 240T / 300T



1. Evaporator
2. Pressure gauge
3. Right side panel
4. Back plate
5. Terminal cover
6. Left back panel
7. Chassis
8. Heat exchanger
9. Compressor mounting plate
10. Compressor
11. Electrical box
12. PCB board
13. Reactor
14. Filter board
15. Driver Module
16. Electrical box cover
17. Left panel
18. Touch controller
19. LED indicator
20. POOLEX logo
21. EEV
22. 4-wayvalve
23. Front panel
24. Top cover
25. Top frame
26. Fan blade
27. Motor waterproof box
28. Silicon cover ring
29. Fan motor
30. Motor holder
31. Water flow switch
32. Columns

3. INSTALLATION

WARNING: Installation must be carried out by a qualified engineer.
This section is provided for information purposes only and must be checked and adapted if necessary according to the actual installation conditions.

3. 1. Pre-requirements

Equipment necessary for the installation of your heat pump:

- ✓ Power supply cable suitable for the unit's power requirements,
- ✓ A By-Pass kit and an assembly of PVC tubing suitable for your installation,
- ✓ Stripper, PVC adhesive and sandpaper,
- ✓ A set of wall plugs and expansion screws suitable to attach the unit to your support.

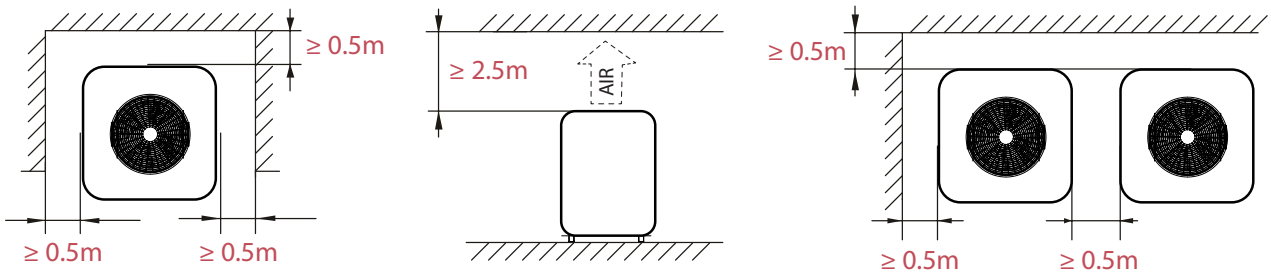
Other equipment usefull for the installation of your heat pump:

- We recommend that you connect the unit to your installation by means of flexible PVC pipes in order to reduce the transmission of vibrations.
- Suitable fastening studs may be used to raise the unit.

3. 2. Location

Please comply with the following rules concerning the choice of heat pump location.

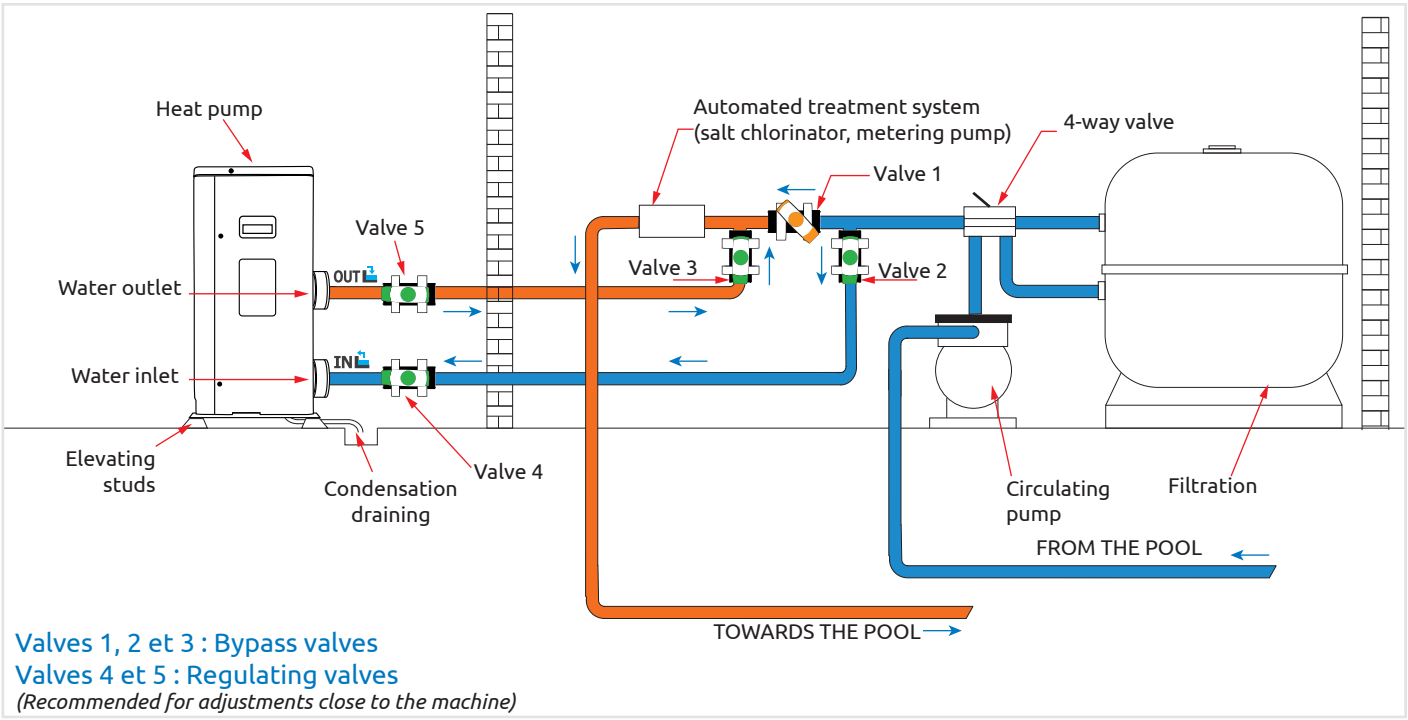
1. The unit's future location must be easily accessible for convenient operation and maintenance.
2. It must be installed on the ground, fixed ideally on a level concrete floor. Ensure that the floor is sufficiently stable and can support the weight of the unit.
3. A water drainage device must be provided close to the unit in order to protect the area where it is installed.
4. If necessary, the unit may be raised by using suitable mounting pads designed to support its weight.
5. Check that the unit is properly ventilated, that the air outlet is not facing the windows of neighbouring buildings and that the exhaust air cannot return. In addition, provide sufficient space around the unit for servicing and maintenance operations.
6. The unit must not be installed in an area exposed to oil, flammable gases, corrosive products, sulphurous compounds or close to high frequency equipment.
7. To prevent mud splashes, do not install the unit near a road or track.
8. To avoid causing nuisance to neighbours, make sure the unit is installed so that it is positioned towards the area that is least sensitive to noise.
9. Keep the unit as much as possible out of the reach of children.



Place nothing less than one metre in front of the heat pump.
Leave 50 cm of empty space around the sides and rear of the heat pump.
Do not leave any obstacle above or in front of the unit!

3. INSTALLATION

3. 3. Installation layout



Valves 1, 2 et 3 : Bypass valves
Valves 4 et 5 : Regulating valves
(Recommended for adjustments close to the machine)

Key	Half-open valve	Open valve

3. 4. Connecting the condensation draining kit

While operating, the heat pump is subject to condensation. This will result in a more or less large run-off of water, depending on the degree of humidity. To channel this flow, we recommend that you install the condensation drainage kit.

How do you install the condensation drainage kit?

Install the heat pump, raising it at least 10 cm with solid water-resistant pads, then connect the drainage pipe to the opening located under the pump.

3. 5. Installing the unit on noise-damping supports

In order to minimise the noise pollution associated with heat pump vibrations, it can be positioned on vibration absorbing pads.

To do this, you simply have to position a pad between each of the unit's feet and its support, and then fix the heat pump to the support with suitable screws.

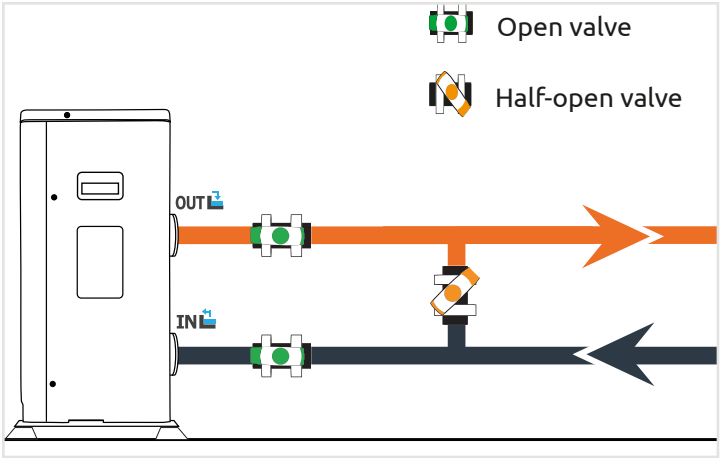
3. 6. Hydraulic connection

By-Pass assembly

The heat pump must be connected to the pool by means of a By-Pass assembly.

A By-Pass is an assembly consisting of 3 valves that regulate the flow circulating in the heat pump.

During maintenance operations, the By-Pass permits the heat pump to be isolated from the system without interrupting your installation.

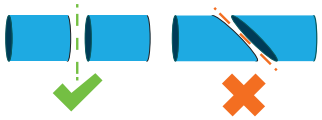


EN

3. INSTALLATION

Making a hydraulic connection with the By-Pass kit

WARNING: Do not run water through the hydraulic circuit for 2 hours after applying the adhesive.



Step 1: Take the necessary steps to cut your pipes.

Step 2: Make a straight perpendicular cut through the PVC pipes with a saw.

Step 3: Assemble your hydraulic circuit without connecting it in order to check that it perfectly fits your installation, then dismantle the pipes to be connected.

Step 4: Chamfer the ends of the cut pipes with sandpaper.

Step 5: Apply stripper to the ends of the pipes to be connected.

Step 6: Apply the adhesive in the same place.

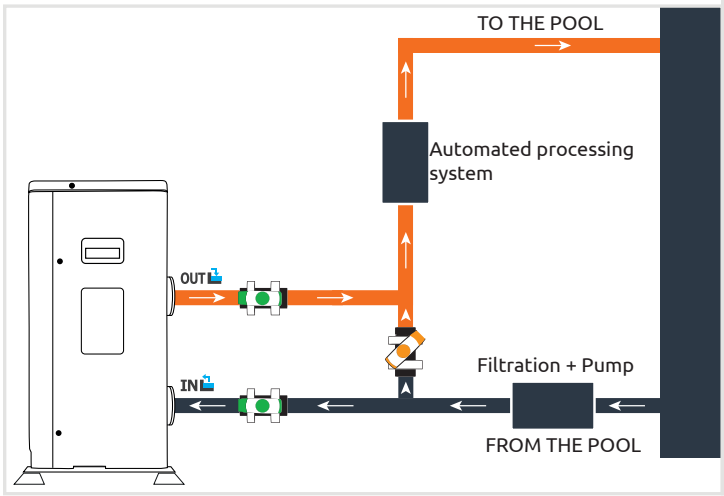
Step 7: Assemble the pipes.

Step 8: Clean off any adhesive remaining on the PVC.

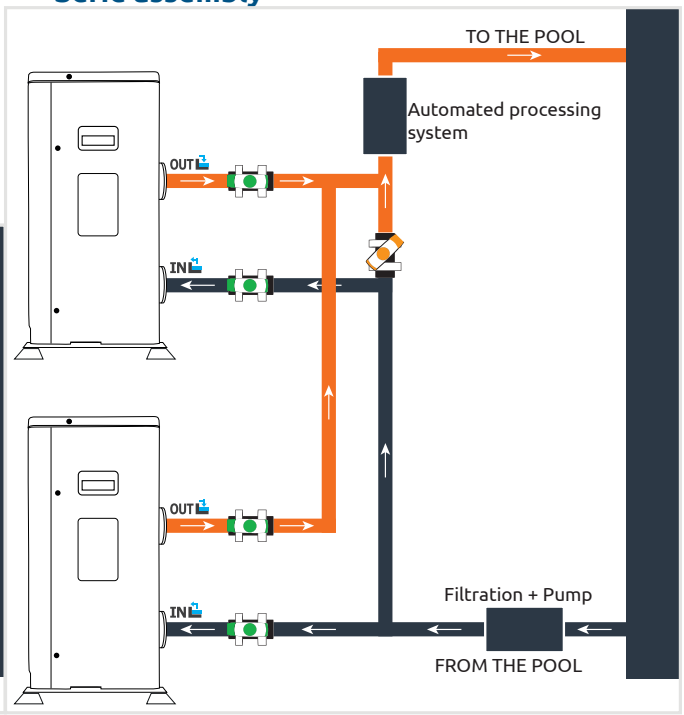
Step 9: Leave to dry for at least 2 hours before putting the hydraulic circuit into water.

By-Pass assembly for one or more heat pump

Simple assembly



Serie assembly



Key	Half-open valve	Open valve

The filter located upstream of the heat pump must be regularly cleared so that the water in the system is clean, thus avoiding the operational problems associated with dirt or clogging in the filter.

3. 7. Electrical installation

To function safely and maintain the integrity of your electrical system, the unit must be connected to a general electricity supply in accordance with the following regulations:

Upstream, the general electricity supply must be protected by a 30 mA differential switch.

The heat pump must be connected to a suitable D-curve circuit breaker (see table below) in accordance with current standards and regulations in the country where the system is installed.

The electricity supply cable must be adapted to match the unit's rated power and the length of wiring required by the installation (see table below). The cable must be suitable for outdoor use.

For a three-phase system, it is essential to connect the phases in the correct sequence.

If the phases are inverted, the heat pump's compressor will not work.

In places open to the public, it is mandatory to install an emergency stop button close to the heat pump.

Models	Electricity supply	Max. current	Cable diameter	Thermal-magnetic (D curve) protection
Poolex Vertigo Fi 55	Singlephase 230V~50/60Hz	7.1A	RO2V 3x2.5 mm²	10A
Poolex Vertigo Fi 75		8.87A	RO2V 3x2.5 mm²	10A
Poolex Vertigo Fi 95		12.42A	RO2V 3x4 mm²	16A
Poolex Vertigo Fi 125		16,9A	RO2V 3x4 mm²	25A
Poolex Vertigo Fi 155		20,1A	RO2V 3x4 mm²	25A
Poolex Vertigo Fi 200		25,73A	RO2V 3x6 mm²	32A
Poolex Vertigo Fi 240		28,84A	RO2V 3x6 mm²	32A
Poolex Vertigo Fi 155T	Three-phase 380-415V ~ 50Hz	8,46A	RO2V 5x2.5 mm²	10A
Poolex Vertigo Fi 200T		10,37A	RO2V 5x2.5 mm²	16A
Poolex Vertigo Fi 240T		11,62A	RO2V 5x2.5 mm²	16A
Poolex Vertigo Fi 300T		15,21A	RO2V 5x2.5 mm²	16A

[1] Cable cross-section suitable for max. length 10 metres. For longer than 10 metres, consult an electrician.

3. 8. Electrical connection

> ⚠ **WARNING: The heat pump's power supply MUST be disconnected before any operation.**

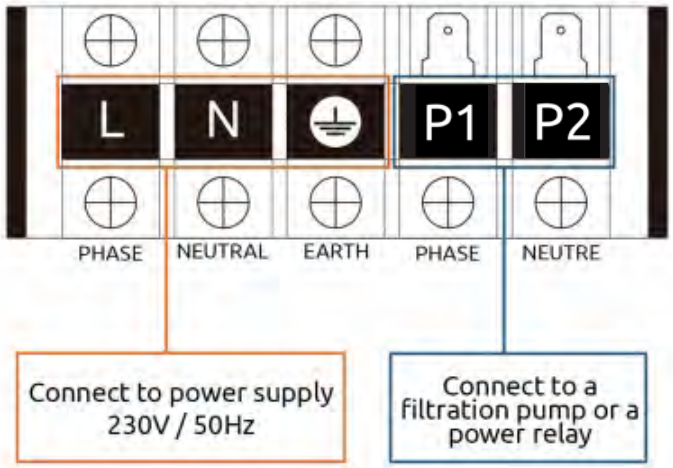
Please comply with the following instructions to electrically connect the heat pump.

Step 1: Detach the electrical side panel with a screwdriver to access the electrical terminal block.

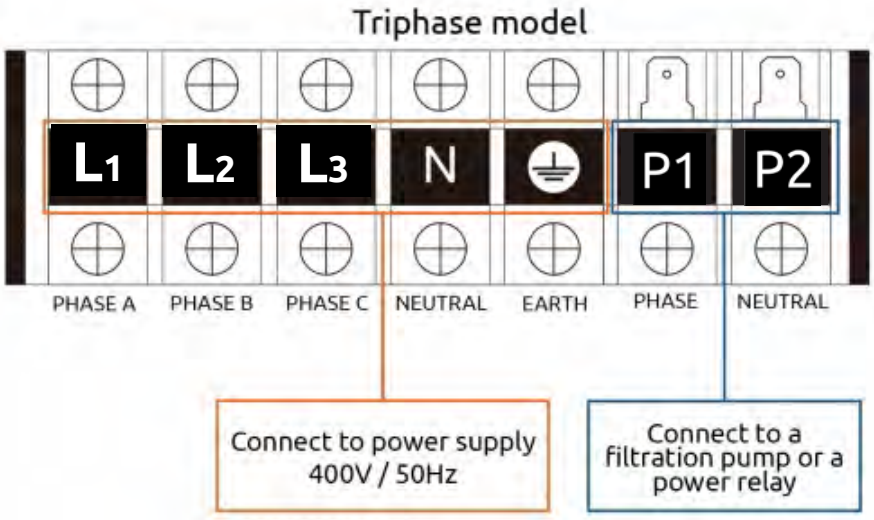
Step 2: Insert the cable into the heat pump unit by passing it through the opening provided for that purpose.

Step 3: Connect the power supply cable to the terminal block in accordance with the diagram below.

Single phase model



Triphase model



Step 4: Carefully close the heat pump panel.

Servo-control of circulating pump

Depending on the type of installation, you can also connect a circulating pump to terminals L1 and N1 so that this operates in tandem with the heat pump.

> ⚠ **WARNING: Servo-control of a pump whose power exceeds 5 A (1000 W) requires the use of a power relay.**

4. USE

4. 1. Wired remote control

Control panel locking

To lock or unlock the control panel, press the button for 3 seconds.

Remember to unlock the control panel before taking any action. The screen locks automatically if no key is pressed for more than 30 seconds.

Getting started

To start the heat pump, press .

When the device is switched off, the icons disappear:

Adjusting the water temperature

Once the box is unlocked, press the or buttons to set the desired temperature.

Press to confirm and return to the main interface. If no manual confirmation is made during the setting process, the device automatically confirms and exits the setting state after 5 seconds.

Force pump defrosting

Press and hold and for 5 seconds to force the pump to defrost. If the actual situation allows, defrosting will be activated.

Enable / Disable LEDs

By default, the LED is activated: parameter F34 is set to 1. To deactivate the LED, set parameter F34 to 0. The LED is colour-coded: green when the target temperature is reached (the appliance stops); blue during operation; red when the appliance is in error.

Display in °C or °F

Press and hold and for 3 seconds to select display in °C or °F.

EN

4. 2. Operating mode selector

Active LED	Operating mode
	Heating
	Cooling
	Auto
	SILENT
	SMART
	BOOST

Before starting, ensure that the filtration pump is working and that water is circulating through the heat pump.

To choose the operating mode, press the M button.

To change the frequency mode, press the button.

Heating mode: The heat pump heats the water.

Cooling mode: The heat pump cools the water.

Auto mode: The heat pump intelligently chooses the most appropriate operating mode according to the difference between the water temperature and the set temperature.

SILENT mode: The heat pump adjusts the water temperature silently.

SMART mode: The heat pump intelligently selects the most appropriate frequency according to the difference between the water temperature and the set temperature.

BOOST mode: The heat pump quickly adjusts the water temperature.

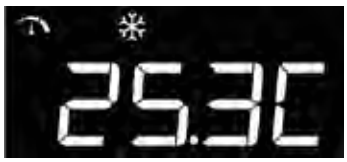
By default, your heat pump is in SMART Heating mode.

The default set temperature is 25°C.

WARNING: When the cooling mode switches to heating mode or vice-versa, the heat pump will restart after 10 minutes.

When the incoming water temperature is less than or equal to the required temperature (setpoint temperature - 1°C), the heat pump will switch to heating mode. The compressor will stop when the temperature of the incoming water is greater than or equal to the required temperature (setpoint temperature + 1°C).

Display examples:



Cooling SMART

Heating SILENT

Heating SMART

Heating BOOST

4. 3. Setting the clock

Set the system clock to local time, as follows:

Step 1: Press for 3 seconds to enter the time setting interface.

Step 2: Press again to enter the hours setting interface.

Step 3: Press the and keys to adjust the hours. If no action is taken for 15 seconds, the setting is saved and the screen returns to the main display.

Step 4: Press again to confirm and enter the minute setting interface.

Step 5: Press the and keys to adjust the minutes. If no action is taken for 5 seconds, the setting is saved and the screen returns to the main display.

Step 6: Press to confirm and return to the main menu.

4. 4. Activating a programme

You can programme up to 2 different switch-on and switch-off times You must first activate the desired programmes as follows:

Step 1: Press the and keys for 3 seconds to access the programming interface.

Step 2: Select the programme to be configured using the and keys. The programme and the corresponding programme setting time flash alternately. If the programme is not active, the corresponding programme setting time will display «--:--».

Step 3: Press for 2 seconds to cancel the selected programme.

Step 4: To cancel all programmes, press for 5 seconds.

Press to confirm and return to the main menu. If no action is taken for 15 seconds, the setting is saved and the screen returns to the main display.

4. 5. Programming Start/Stop

Power on **Power off**

This function is used to program the switch-on and switch-off times. It is set as follows:

Step 1: Press the and keys for 3 seconds to access the programming interface.

Step 2: Select the programme to be configured using the and keys.

Step 3: Press to select the programme to be configured. For example, start 1.

Step 4: Set the hours (e.g. for start 1) using the keys and keys.

Step 5: Press to confirm the hours and move on to the minutes.

Step 6: Set the minutes (e.g. for start 1) using the and keys.

Press to confirm and return to the main menu. If no action is taken for 5 seconds, the setting is saved and the screen returns to the main display.

Repeat the procedure for each programme (start 1, stop 1, start 2, stop 2).

Start 1 setting interface:

Stop 2 setting interface:

4. 6. Status value query interface

Press M for 3 seconds to access the device status query interface.

Press the + or − to check the status parameters.

Press ⏻ to return to the main menu. If no action is taken for 15 seconds, the screen returns to the main display.

Example of device status query interface display for status value C1:

Code	Description	Unit
C1	Press 1 frequency	Hz
C2	Press 2 frequency	Hz
C3	Inlet water temperature	°C
C4	Coil temperature	°C
C5	Exhaust temperature	°C
C6	Return air temperature	°C
C7	Cooling Coil Temperature	°C
C8	Ambient temperature	°C
C9	Water tank temperature	°C
C10	Return water temperature	°C
C11	Outlet temperature	°C
C12	Coil 2 temperature	°C
C13	Exhaust 2 temperature	°C
C14	Return air 2 temperature	°C
C15	Cooling coil 2 temperature	°C
C16	Reserved 3 temperature	°C
C17	Main valve 1 opening	P
C18	Auxiliary valve 1 opening	P
C19	Main valve 2 opening	P
C20	Auxiliary valve 2 opening	P
C21	High pressure value	MPa
C22	Low pressure value	MPa
C23	High pressure saturation temperature	°C
C24	Low pressure saturation temperature	°C
C25	Drive 1-AC voltage	V
C26	Drive 1-AC current	A
C27	Drive 1 - DC bus voltage	V
C28	Drive 1-Compressor phase current	A
C29	Drive 1-IPM module temperature	°C

Code	Description	Unit
C30	Drive 1-DC fan 1 speed	rpm
C31	Drive 1-DC fan 2 speed	rpm
C32	Drive 2-AC voltage	V
C33	Drive 2-AC current	A
C34	Drive 2-DC bus voltage	V
C35	Drive 2-compressor phase current	A
C36	Drive 2-IPM module temperature	°C
C37	Drive 2-DC fan 1 speed	rpm
C38	Drive 2-DC fan 2 speed	rpm
C39	Reserved	-
C40	Reserved	-
C41	CRC32-High 4 bits	-
C42	CRC32-low 4 bits	-
C43	Reserved	-

4. 7. Restore default settings

Step 1: Press M for 3 seconds to access the device status query interface.

Step 2: Press again M for 3 seconds to access the password entry interface.

The controller displays : O___. You must enter the password 418.

Step 3: Use the arrows to change a number. Press M to change digit.

Step 4: Press ⏻ to confirm.

The controller beeps twice to restore the factory default settings and displays «RE».

4. 8. Wifi pairing

When the device is powered up, the controller enters the network connection state for 3 minutes and flashes. If there are no network contribution operations within 3 minutes, the device leaves the network connection state and stops flashing.

While the icon is flashing (if it has disappeared, restart the device), use one of the following two options to initiate wifi pairing:

- EZ mode : Press ⏻ and + for 3 seconds. The icon will start flashing rapidly.
- AP mode : Press ⏻ and − for 3 seconds. The icon will start flashing slowly.

When the connection is successful, the icon remains fixed.

4. 9. Download & Installation of the «Smart Life» application

About the Smart Life app:

You'll need to create a «Smart Life» account to control your heat pump remotely.

The «Smart Life» app lets you control your home appliances from anywhere. You can add and control multiple devices at once.

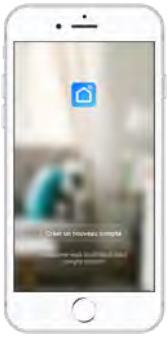
- You can share your devices with other Smart Life accounts.
- Receive real-time operational alerts.
- Create scenarios with several devices, depending on the app's weather data (geolocation required).

For more information, go to the «Help» section of the «Smart Life» app

The «Smart Life» app and services are provided by Hangzhou Tuya Technology. Poolstar, owner and distributor of the Poolex brand, cannot be held responsible for the operation of the «Smart Life» app. Poolstar has no visibility on your «Smart Life» account.

iOS :

Search for «Smart Life» in the App Store to download the app:



Smart Life

Télécharger sur App Store

Check the compatibility of your phone and the version of your OS before installing the application

Android :

Search for «Smart Life» on Google Play to download the app :

Smart Life

Télécharger sur Google Play

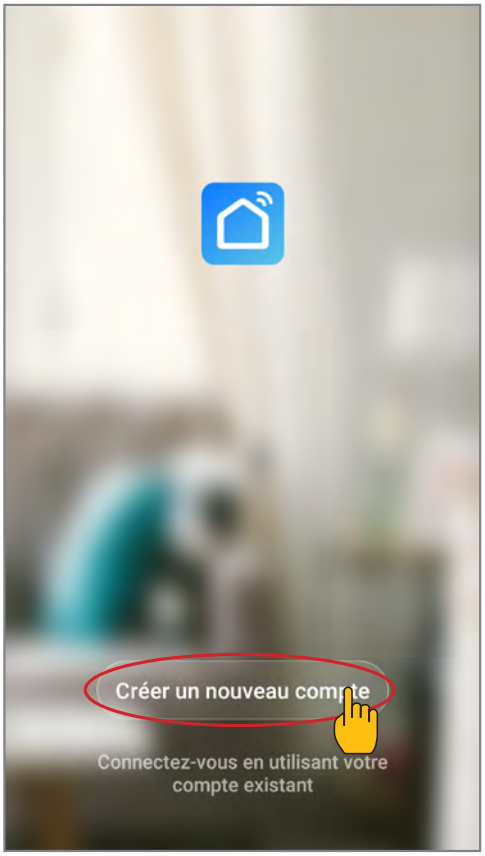
Check the compatibility of your phone and the version of your OS before installing the application

4. 10. Setting up the app

WARNING : Before you begin, make sure you have downloaded the «Smart Life» app, connected to your local WiFi network, and that your heat pump is electrically powered and running.

You'll need to create a «Smart Life» account to control your heat pump remotely. If you already have a Smart Life account, please log in and go directly to step 3.

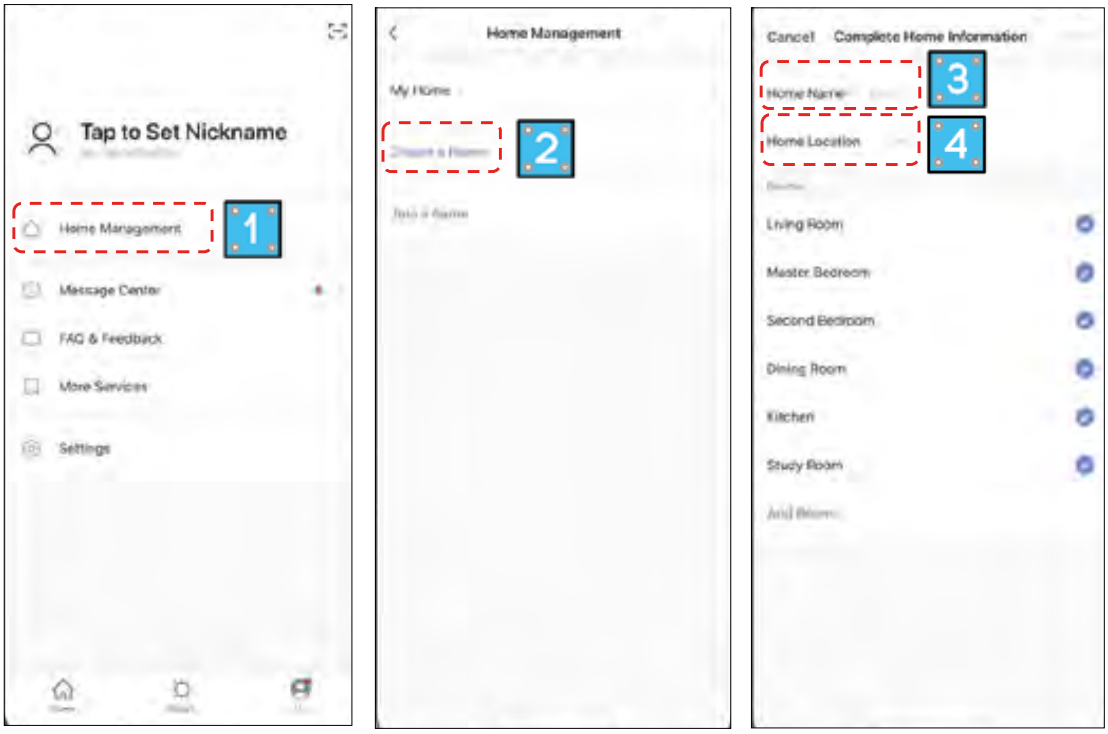
Step 1: Click on «Create new account» and choose to register by «Email» or «Phone,» where a verification code will be sent to you.
Enter your email address or phone number and click «Send verification code».



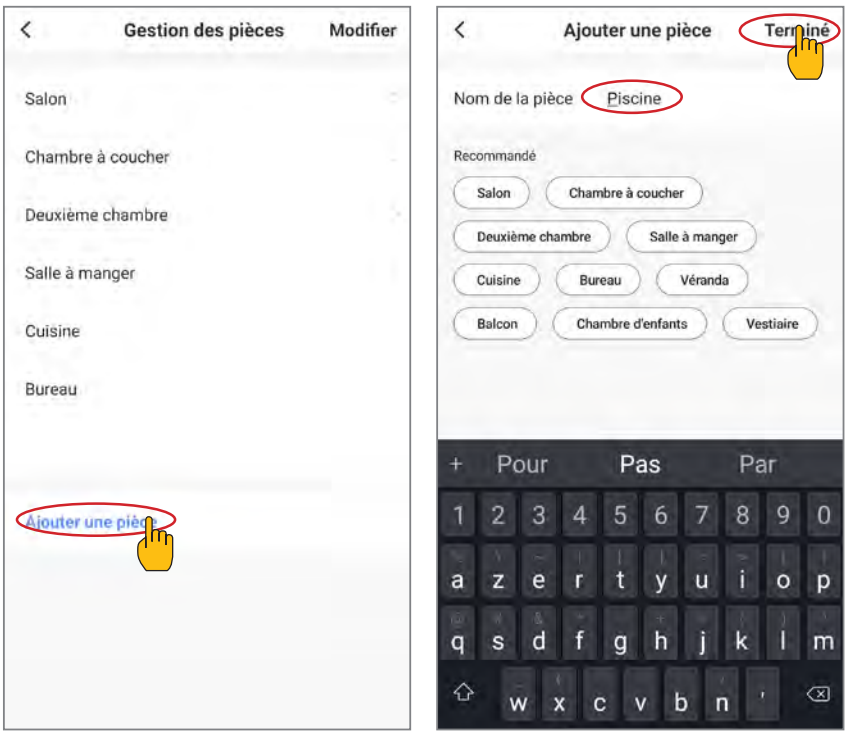
Step 2: Enter the verification code received by email or phone to validate your account.

Congratulations! You are now part of the «Smart Life» community.

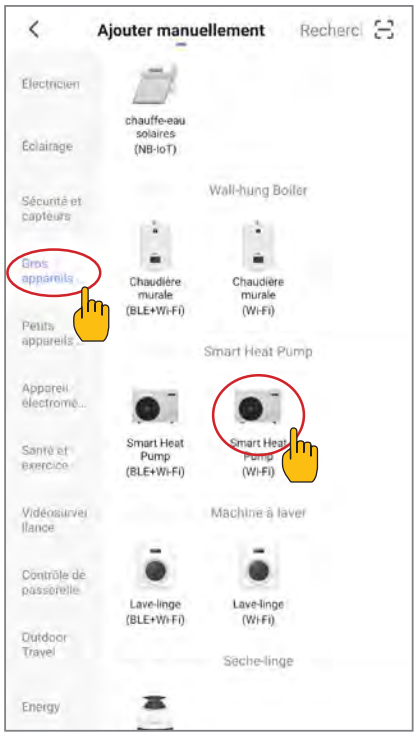
Step 3: **(Recommended)** Enter the details of your home.



Step 4: **(Recommended)** Add a room by pressing «Add Room», now enter the name of the room to be added («Pool» for example), then press «Done».



Step 5: Now add a device to your «Pool»
Click «Add» or «+» and then «Large appliances...» followed by «Water heater.»
At this point, leave your smartphone on the «Add» screen and go to the pairing step for your control box.

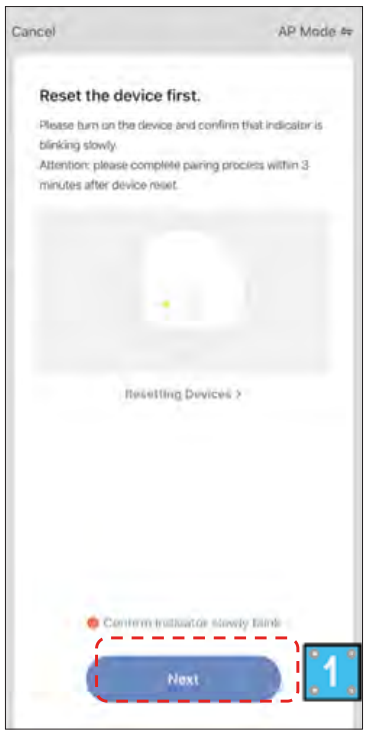


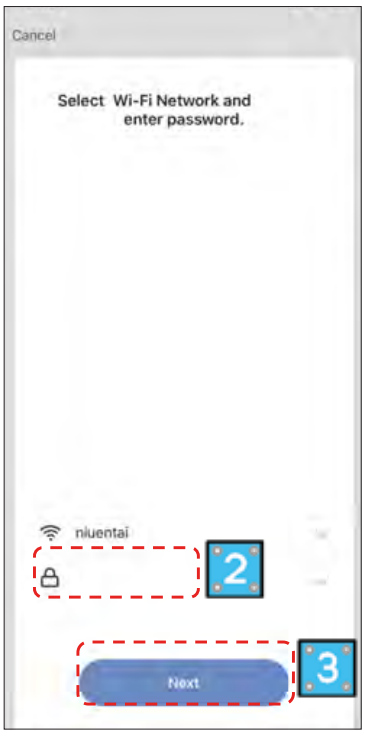
4. 11. Pairing the heat pump

Step 1: Restart the heat pump.
Once the heat pump has been restarted, you have 3 minutes to pair the heat pump with your phone.

Step 2: Now start the pairing.
Choose your home WiFi network, enter the WiFi password and press «Confirm».

**CAUTION: The «Smart Life» application only supports 2.4GHz WiFi networks.
If your WiFi network uses the 5GHz frequency, go to the interface of your home WiFi network to create a second 2.4GHz WiFi network (available for most Internet boxes, routers and WiFi access points).**





EN

Step 3: Activate the pairing mode on your heat pump according to the following procedure:

Press the ⏻ and ⊕ keys simultaneously for 3s..
The icon ((•)) flashes quickly. The control box is ready to be paired.

Once pairing has been successfully completed, you can rename your Poolex heat pump and then press «Done».

Congratulations, your heat pump can now be controlled from your smartphone.

Note: The flashing stops when the box is connected to WiFi.

4. 12. Controlling

User interface

1. Current pool temperature
2. Temperature setpoint
3. Current operating mode
4. Switch the heat pump on/off
5. Change the temperature
6. Change the operating mode
7. Set the operating range

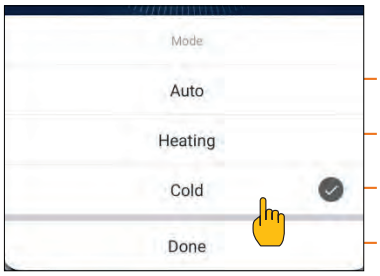
Choice of operating modes

For Inverter heat pumps :

You can choose between Silent Heating, Smart Heating, Boost Heating, Silent Cooling, Smart Cooling, Boost Cooling and Automatic modes.

**Some modes may change depending on the machines*

Available modes



- Auto*
- Heating*
- Cooling*
- Done

Configure the operating ranges for the heat pump

Create a schedule: Choose the time, day(s) of the week(s), and the action (turn on or off) and save.

Delete a time slot: Press on it and hold.

EN

5. OPERATION

5. 1. Operation

Conditions of use

For the heat pump to operate normally, the ambient air temperature must be between -10°C and 43°C.

Recommendations prior to start-up

Before activating the heat pump, please:

- ✓ Check that the unit is firmly secured and stable.
- ✓ Check that the gauge indicates a pressure greater than 80 psi.
- ✓ Check that the electrical wiring is properly connected to the terminals.
- ✓ Check the earthing.
- ✓ Check that the hydraulic connections are tight and that there is no leakage of water.
- ✓ Check that the water is circulating correctly in the heat pump and that the flow rate is adequate.
- ✓ Remove any unnecessary object or tool from around the unit.

Operation

1. Activate the unit's power supply protection (differential switch and circuit-breaker).
2. Activate the circulating pump if it is not servo-controlled.
3. Check the By-Pass opening and the control valves.
4. Activate the heat pump.
5. Adjust the remote control clock.
6. Select the required temperature by using one of the remote control's mode.
7. The heat pump's compressor will start up after a few moments.

All you have to do now is wait until the required temperature is reached.

⚠ **WARNING: Under normal conditions, a suitable heat pump can heat the water in a swimming pool by 1°C to 2°C per day. It is therefore quite normal to not feel any temperature difference in the system when the heat pump is working.**
A heated pool must be covered to avoid any loss of heat.

5. 2. Servo-control of circulating pump

If you have connected a circulating pump to terminals P1 and P2, it is automatically electrically powered when the heat pump operates.

5. 3. Using the pressure gauge

The gauge is for monitoring the pressure of the refrigerant contained in the heat pump. The values it indicates can vary considerably, depending on the climate, temperature and atmospheric pressure.

When the heat pump is in operation:

The gauge's needle indicates the refrigerant pressure.

Mean operating range between 250 and 450 PSI, depending on the ambient temperature and atmospheric pressure.

When the heat pump is shut down:

The needle indicates the same value as the ambient temperature (within a few degrees) and the corresponding atmospheric pressure (between 150 and 350 PSI maximum).

If left unused for a long period of time:

Check the pressure gauge before starting up the heat pump. It must indicate at least 80 PSI.

⚠ **If the pressure goes down too much, the heat pump will display an error message and automatically go into 'safe' mode.**
This means that a refrigerant leak has occurred and that you need to call in a qualified technician to find the leak, repair it if possible and recharge it.

5. 4. Antifreeze protection

⚠ **WARNING: For the antifreeze system to work, the heat pump must be powered and the circulating pump activated. If the circulating pump is servo-controlled by the heat pump, it will be automatically activated.**

When the heat pump is on standby, the system monitors the ambient temperature and the water temperature in order to activate the antifreeze programme if required.

The antifreeze programme is automatically activated when the ambient temperature or the temperature of the water is less than 2°C and when the heat pump has been shut down for more than 120 minutes.

When the antifreeze programme is running, the heat pump activates its compressor and the circulating pump so as to reheat the water until the water temperature exceeds 2°C.

The heat pump automatically leaves the antifreeze mode when the ambient temperature is greater than or equal to 2°C or when the heat pump is activated by the user.

6. MAINTENANCE AND SERVICING

6. 1. Maintenance and servicing

WARNING: Before undertaking maintenance work on the unit, ensure that you have disconnected the electrical power supply.

Cleaning

The heat pump's casing must be cleaned with a damp cloth. The use of detergents or other household products could damage the surface of the casing and affect its properties.

The evaporator at the rear of the heat pump must be carefully cleaned with a vacuum cleaner and soft brush attachment.

Annual maintenance

The following operations must be undertaken by a qualified person at least once a year.

- ✓ Carry out safety checks.
- ✓ Check the integrity of the electrical wiring.
- ✓ Check the earthing connections.
- ✓ Monitor the state of the pressure gauge and the presence of refrigerant.

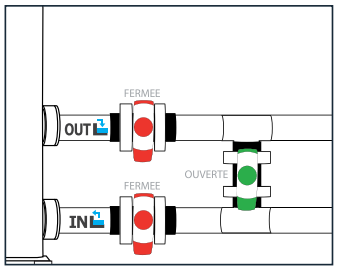
6. 2. Winter storage

In the winter months when the ambient temperature is lower than 3°C, a shut-down heat pump must be winterised to avoid any frost damage.

Winterising in 4 steps

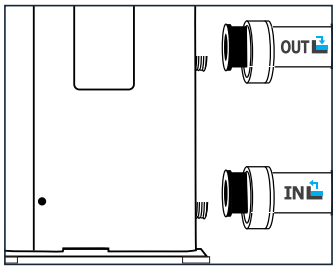
Step 1

Disconnect the heat pump from the power supply.



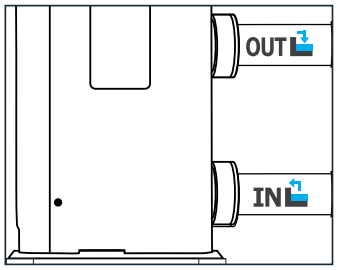
Step 2

Open the By-Pass valve. Close the inlet and outlet valves.



Step 3

Unscrew the water pipes in order to drain any water from the heat pump.



Step 4

Screw back the pipes or block them with rags so as to prevent any foreign bodies from getting into the circuit.

Finally, protect the pump with its winter storage cover.

If a circulating pump is servo-controlled by the heat pump, drain this also.

7. REPAIRS

WARNING: Under normal conditions, a suitable heat pump can heat the water in a swimming pool by 1°C to 2°C per day. It is therefore quite normal to not feel any temperature difference in the system when the heat pump is working.
A heated pool must be covered to avoid any loss of heat.

In the event of a problem, the heat pump's screen displays a fault symbol ERROR instead of temperature indications. Please consult the table opposite to find the possible causes of a fault and the actions to be taken.

Code	Anomalies	Possible causes	Actions
EE	In and Out Sensor error Stop	Wiring error Sensor is broken	Check the sensor wiring Replace the sensor
E01	Remote controller lost connection	Wiring error Controller broken Motherboard broken	Replace the connecting cable Replace the wire controller Replace the motherboard
E02	Driver lost connection	The driver board is broken The motherboard is broken Signal interference	Replace the driver board Replace the motherboard Re-route the wires, separate the strong and weak electricity, and ground them to avoid interference
E03	AC current protection	Input voltage is unstable Power wiring is wrong	Input stable voltage Check the power connection
E04	AC Voltage protection		
E05	DC Voltage Protection		
E06	Phase current Protection		
E07	IPM over current IPM	Out of operating range (water temperature or ambient temperature) The driver board is broken	Operate within a reasonable range Replace the driver board
E08	DC current Protection	Input voltage is unstable Power wiring is wrong	Input stable voltage Check the power connection
E09	Discharge temperature too high	Out of operating range (water temperature or ambient temperature) Lack of refrigerant	Operate within a reasonable range Refill refrigerant
E10	Outdoor ambient temperature protection	Out of operating range (ambient temperature)	Operate within a reasonable range
E11	High pressure protection	Bad wiring of high pressure switch High pressure switch is broken Insufficient water flow	Check the high pressure switch wiring Replace the high pressure switch Check according to the cause of insufficient water flow
E12	Low pressure protection	Bad wiring of low pressure switch The low pressure switch is broken Dust accumulates on the fins There are obstacles blocking the wind direction	Check the low pressure switch wiring Replace the low pressure switch Clean the fin dust Clear the obstacles
E13	Reserved		
E14	Out water too low	Out of operating range (water temperature)	Operate within a reasonable range
E15	Coil temp too high for cooling mode	Out of operating range (water temperature or ambient temperature)	
E16	Out water too high for heating mode	Out of operating range (water temperature)	
E17	Flow sensor malfunction	Bad wiring/installation of water flow switch Broken water flow switch Dirty and clogged water path Water pump not working	Check the water flow switch wiring/ installation Replace the water flow switch Clean the filter Replace the water pump with a working one

Code	Anomalies	Possible causes	Actions
E18	High pressure switch protection	Bad wiring of high pressure switch High pressure switch is broken Insufficient water flow	Check the high pressure switch wiring Replace the high pressure switch Check according to the cause of insufficient water flow
E19	Low pressure switch protection	Bad wiring of low pressure switch The low pressure switch is broken Dust accumulates on the fins There are obstacles blocking the wind direction	Check the low pressure switch wiring Replace the low pressure switch Clean the fin dust Clear the obstacles
E20	Power supply phase sequence error	Power supply phase loss	Check the power wiring
1E21	Power supply Phase A lost	Power phase A is losing	
E22	In and Out temperature difference too high	Insufficient water flow The water inlet/outlet sensor is broken	Check according to the fault of insufficient water flow. Replace the water inlet/outlet sensor
E23	Ambient temperature too low for heat mode	Out of operating range (ambient temperature)	Operate within a reasonable range
E24	Ambient temperature too low for cool mode		
E25	Inside coil temperature too low	Out of operating range (water temperature)	
E26	DC-Fan error	The fan motor is broken The fan driver board is broken The fan driver board wiring is bad	Replace the fan motor Replace the fan drive board Check the wiring
E27	Power supply Phase B lost	Power phase B is losing	Check the power wiring
E28	Power supply Phase C lost	Power phase C is losing	
E29	Reserved		
E32	Reserved		
E33	Reserved		
E34	Reserved		
E35	Reserved		
E36	Reserved		
E37	IPM protection IPM	Unstable voltage The driver board is broken The driver board wiring is bad	Input stable voltage Replace the driver board Check the driver board wiring
E38	Inverter module protection	The driver board wiring is bad The motherboard is broken The driver board is broken	Check the driver board wiring Replace the motherboard Replace the driver board
E39	Reserved		
E40	Reserved		
E41	Reserved		
E42	Reserved		
E43	Reserved		
E44	Reserved		
E45	Reserved		
E46	Reserved		
E47	Reserved		
E48	Reserved		

Code	Anomalies	Possible causes	Actions
E49	In sensor error	Wiring error Sensor is broken	Check the sensor wiring Replace the sensor
E50	Coil sensor error		
E51	Discharge sensor error		
E52	Suction sensor error		
E53	Inside coil sensor error		
E54	Ambient sensor error		
E55	Reserved		
E56	Reserved		
E57	Out sensor error	Wiring error Sensor is broken	Check the sensor wiring Replace the sensor
E63	High pressure sensor error		
E64	Low pressure sensor error		
D17	Driver 1 IPM over current	The voltage is too low The driver board is broken The driver board wiring is bad	Input stable voltage Replace the driver board Check the driver board wiring
D18	Driver 1 protection (except IPM protection)	The driver board wiring is bad The motherboard is broken The driver board is broken	Check the driver board wiring Replace the motherboard Replace the driver board
D19	Driver 1 over current	The voltage is too low The driver board is broken The driver board wiring is bad	Input stable voltage Replace the driver board Check the driver board wiring
D20	Reserved		
D21	Reserved		
D22	Driver 1 IPM over temperature	The temperature of the driver board is too high The driver board is broken It is out of the operating range (water temperature or ambient temperature)	Turn off the power and wait for the temperature to drop before restarting Replace the driver board Operate within a reasonable range
D23	Driver 1 PFC Protection		
D24	Driver 1 DC Voltage too high	Input voltage is too high	Input stable voltage
D25	Driver 1 DC voltage too low	Input voltage is too low	
D26	Driver 1 AC voltage too low		
D27	Driver 1 AC current too high	Input voltage is too high	
D28	Reserved		
D29	Reserved		
D30	Reserved		
D31	Reserved		
D32	Driver 1 connection error	Bad wiring of the driver board	Check the driver board wiring
D33	Driver 1 IPM temperature sensor error	Wiring error Sensor is broken	Check the sensor wiring Replace the sensor
D34	Driver 1 DC fan1 error	The fan motor is broken The fan driver board is broken The fan driver board wiring is bad	Replace the fan motor Replace the fan drive board Check the wiring
D35	Driver 1 DC fan2 error		
D36	Driver 1 15V power error	The driver board is broken	Replace the driver board

8. END OF PRODUCT LIFE

8. 1. Recycling the heat pump

Your heat pump has reached the end of its life and you wish to dispose of it or to replace it. Do not throw it in the rubbish bin.

A heat pump must be disposed of separately with a view to its reuse, recycling or upgrading. It contains substances that are potentially hazardous to the environment but which will be eliminated or neutralised by recycling.

You have three solutions:

1. Disposing of it at your local recycling centre.
2. Giving it to a social service organisation for it to be repaired and put back into circulation.
3. Returning it to the heat pump distributor against a new purchase.

8. 2. General warranty conditions

The Poolstar Company guarantees the original owner against defective materials and faults in the manufacture of the Poolex Vertigo Fi heat pump for a period of **five (5) years.**

- The compressor is guaranteed for a period of **seven (7) years.**
- The titanium tube heat exchanger is guaranteed for a period of **fifteen (15) years** against chemical corrosion, except for frost damage.
- The condenser's other components are guaranteed for **five (5) years.**

The warranty becomes effective on the date of the first invoice.

The warranty does not apply in the following cases:

- Malfunction or damage arising from an installation, usage or repair that is not in compliance with the safety instructions.
- Malfunction or damage arising from a chemical agent that is unsuitable for the pool.
- Malfunction or damage arising from conditions that are unsuitable for the equipment's purposes of use.
- Damage arising from negligence, accident or force majeure.
- Malfunction or damage arising from the use of unauthorised accessories.

Repairs undertaken during the warranty period must be approved prior to being carried out by an authorised technician. The warranty shall be null and void if the repair to the equipment is carried out by a person who is not authorised by the Poolstar company.

The guaranteed parts shall be replaced or repaired at Poolstar's discretion. Defective parts must be returned to our workshops to be covered during the warranty period. The warranty does not cover labour costs or unauthorised replacements. The return of the defective part is not covered by the warranty.

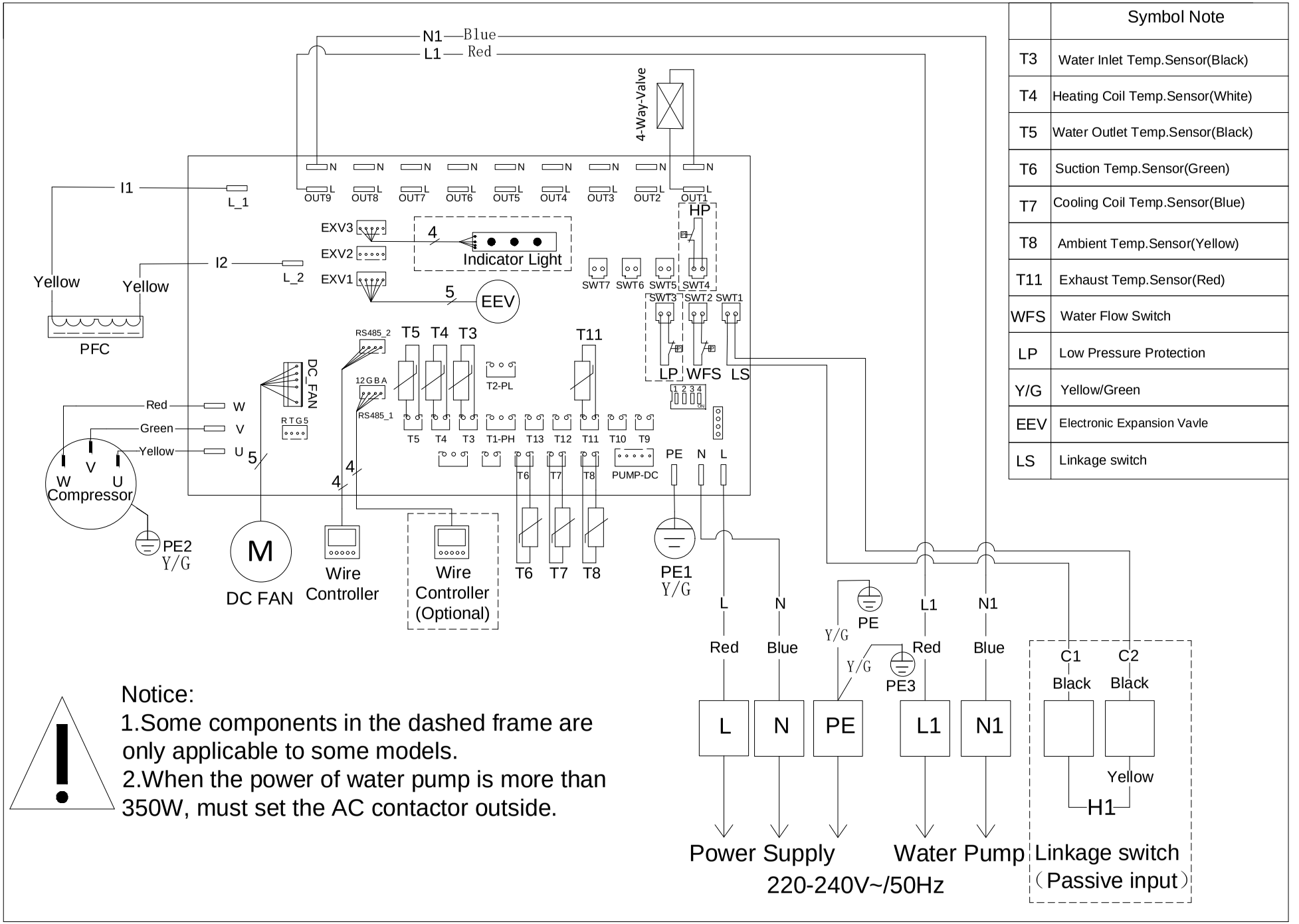
Dear Sir/Madam,

Please spend a few minutes filling in the warranty registration card that you will find on our website:

http://support.poolex.fr/

We thank you for your trust in our products.
Enjoy your swimming!

Your details may be treated in accordance with the Data Protection Act of 6 January 1978 and will not be divulged to any third party.



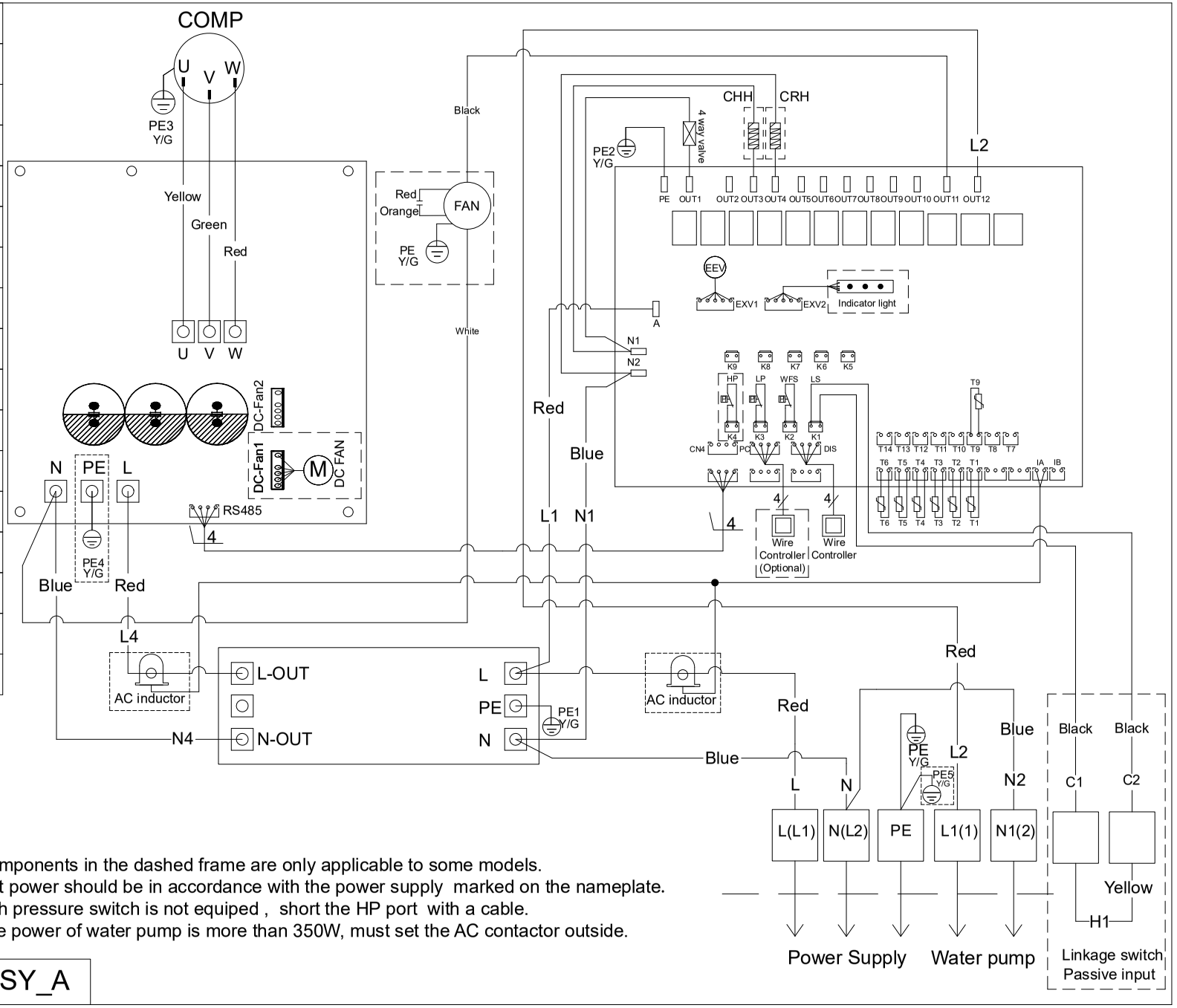
	Symbol Note
T3	Water Inlet Temp.Sensor(Black)
T4	Heating Coil Temp.Sensor(White)
T5	Water Outlet Temp.Sensor(Black)
T6	Suction Temp.Sensor(Green)
T7	Cooling Coil Temp.Sensor(Blue)
T8	Ambient Temp.Sensor(Yellow)
T11	Exhaust Temp.Sensor(Red)
WFS	Water Flow Switch
LP	Low Pressure Protection
Y/G	Yellow/Green
EEV	Electronic Expansion Vavle
LS	Linkage switch

Notice:

1.Some components in the dashed frame are only applicable to some models.

2.When the power of water pump is more than 350W, must set the AC contactor outside.

Symbol Note	
T1	Water Inlet Temp.Sensor(Black)
T2	Heating Coil Temp.Sensor(White)
T3	Exhaust Temp.Sensor(Red)
T4	Suction Temp.Sensor(Green)
T5	Cooling Coil Temp.Sensor(Blue)
T6	Ambient Temp.Sensor(Yellow)
T9	Water Outlet Temp.Sensor(Black)
HP	High Pressure Switch
LP	Low Pressure Switch
WFS	Water Flow Switch
Y/G	Yellow/Green
FAN	Fan Motor
COMP	Compressor
EEV	Electronic Expansion Valve
CHH	Chassis Electric Heater
CRH	Crankshaft Electric Heater

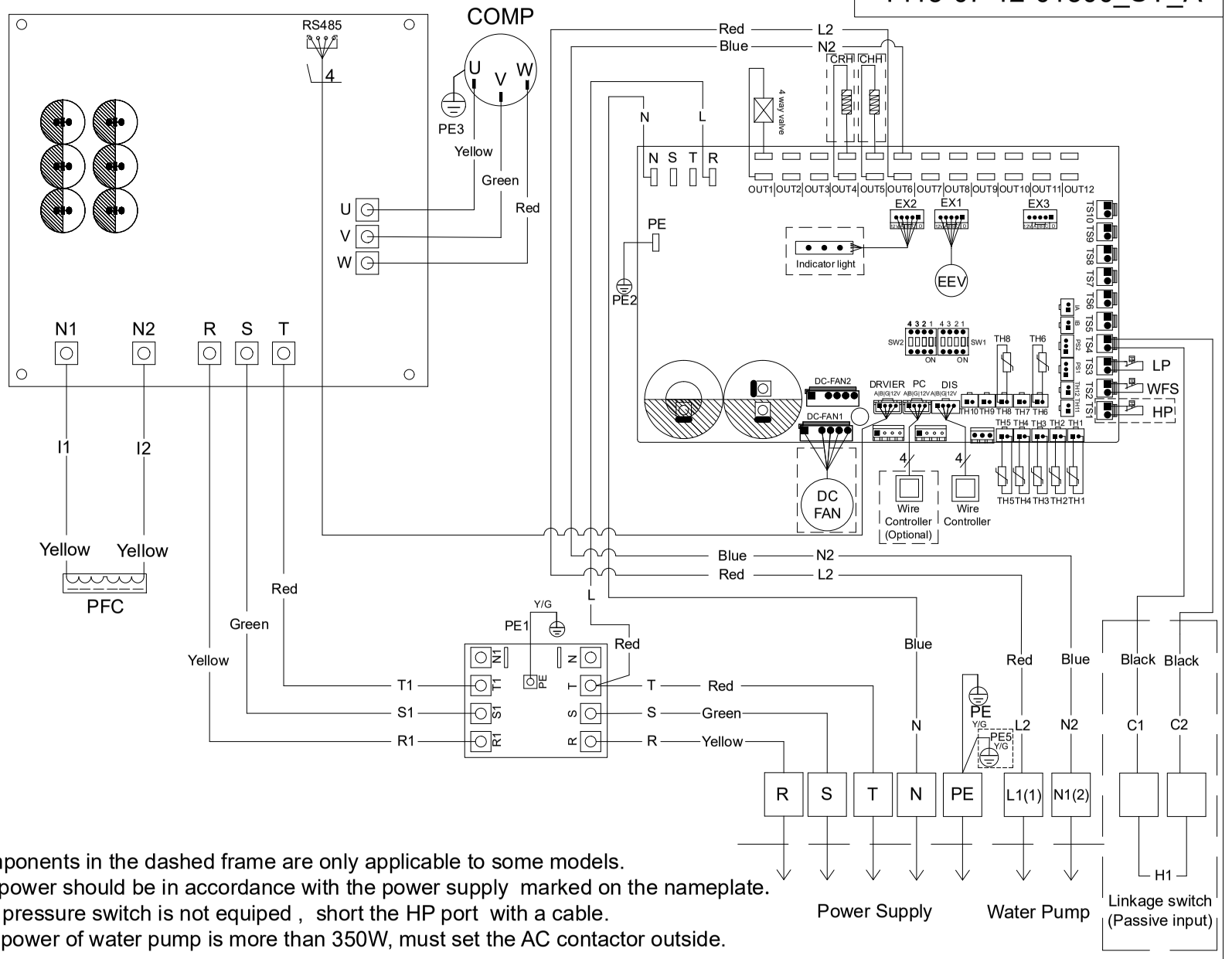


Notice:
1.Some components in the dashed frame are only applicable to some models.
2.The input power should be in accordance with the power supply marked on the nameplate.
3.If the high pressure switch is not equiped , short the HP port with a cable.
4.When the power of water pump is more than 350W, must set the AC contactor outside.

T113-07-12-01299_SY_A

T113-07-12-01300_SY_A

Symbol Note	
TH1	Ambient Temp.Sensor (Yellow)
TH2	Heating Coil Temp.Sensor （Blue）
TH3	Exhaust Temp.Sensor (Red)
TH4	Suction Temp.Sensor (Green)
TH5	Water Outlet Temp.Senso (Black)
TH6	Water Inlet Temp.Sensor (White)
TH8	Cooling Coil Temp.Sensor (Brown)
HP	High Pressure Switch
LP	Low Pressure Switch
WFS	Water Flow Switch
Y/G	Yellow/Green
FAN	Fan Motor
COMP	Compressor
EEV	Electronic Expansion Valve
CHH	Chassis Electric Heater
CRH	Crankshaft Electric Heater



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POOLEX

Assistance technique - Technical support -
Asistencia técnica - Assistenza tecnica -
Technische unterstützung - Technische bijstand

www.assistance.poolstar.fr
contact@poolstar.fr

Poolex is a brand of the group :

Poolstar

02-2025