TermoPool
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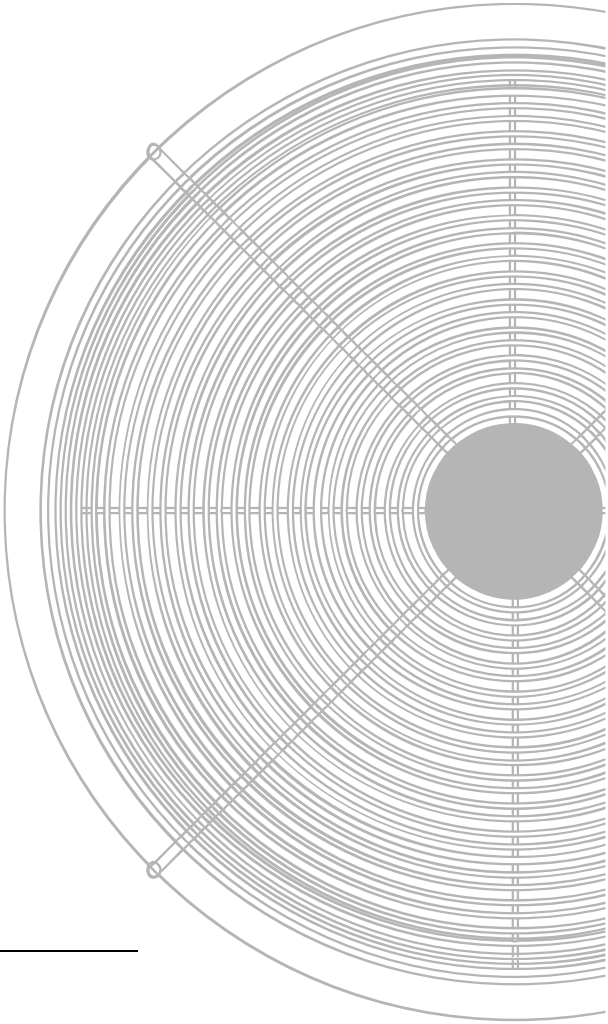


UPUTSTVO ZA UGRADNJU I KORISNIK

TOPLOTNA PUMPA ZA BAZEN INVERTERA

SADRŽAJ

UPOZORENJE:

a. Molimo da pročitte sledeće savete pre instalacije upotrebe i održavanja.

b. Instalacije,uklanjanje i održavanje mora izvoditi profesionalno osoblje u skladu sa uputstvima.

c. Ispitivanje curenje gasa mora se obaviti pre i posle ugradnje.

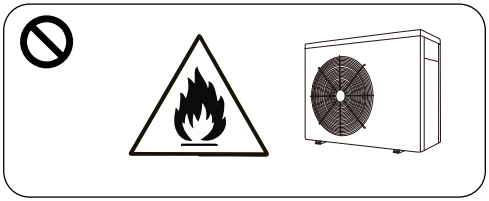
1. Upotreba

a. a. Moraju ga instalirati ili ukloniti profesionalci, a zabranjeno je demontirati i popraviti bez dozvole.

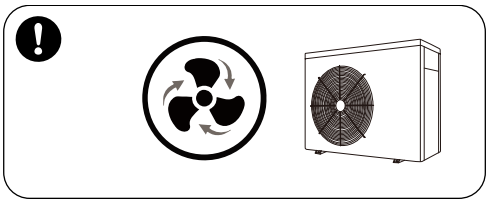
b. **Ne postavljajte prepreke pred ulaz i izlaz vazduha toplotne pumpe.**

2. Instalacija

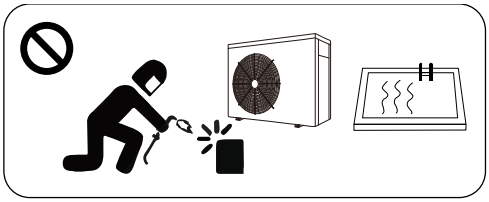
a. Ovaj proizvod se mora držati dalje od izvora vatre.



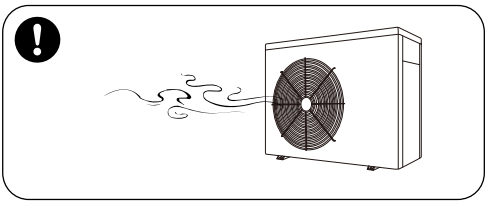
b. Instalacija ne može biti u zatvorenom okruženju ili u zatvorenom i mora se dobro provetravati.



c. U potpunosti usisajte pre zavarivanja, zavarivanje na terenu nije dozvoljeno, zavarivanje može izvoditi samo profesionalno osoblje u profesionalnom centru za održavanje.



d. Instalacija se mora zaustaviti ako dođe do curenja plina i jedinica se mora vratiti u centar za profesionalno održavanje.



3. Transport i skladištenje

a. Zaptivanje nije dozvoljeno tokom transporta

b. Prevoz robe konstantnom brzinom potreban je da bi se izbeglo naglo ubrzanje ili naglo kočenje, kako bi se smanjio sudar robe.

c. Ovaj proizvod se mora držati dalje od izvora vatre..

d. Mesto za odlaganje mora biti svetlo, široko, otvoreno i dobro provetriti, potrebna je oprema za ventilaciju

4. Obaveštenje o održavanju

a. Ako je potrebno održavanje ili otpad, kontaktirajte ovlašćeni servisni centar u blizini

b. Kvalifikacioni uslovi.

Svi operatori koji odlažu gas moraju biti kvalifikovani važećom sertifikatom

izdatom od profesionalne agencije.

c. Molimo vas da se strogo pridržavate zahteva proizvođača prilikom održavanja ili punjenja gasa. Molimo pogledajte priručnik za tehničku uslugu.

Zahvaljujemo na odabiru našeg proizvoda i na poverenju u našu kompaniju. Da biste dobili maksimalno zadovoljstvo od korišćenja ovog proizvoda, pažljivo pročitajte ovo uputstvo za upotrebu i postupajte strogo u skladu sa uputstvom za upotrebu pre pokretanja mašine, u suprotnom mašina može biti oštećena ili vam naneti nepotrebnu štetu.

I. Primena

1- Postavite temperaturu vode u bazenu efikasno i ekonomično kako biste vam pružili udobnost i zadovoljstvo.

2- Korisnik može odabrati tehnički parametar modela prema profesionalnom vodiču, ova serija grejača za bazene je fabrički optimizovana (pogledajte tabelu tehničkih parametara)

II. Karakteristike

1- Visoko efikasan izmenjivač toplote od titana.

2- Osetljiva i tačna kontrola temperature i prikaz temperature vode.

3- Zaštita od visokog pritiska i niskog pritiska.

4- Prekoračenje zaštite od automatskog zaustavljanja pri niskoj temperaturi.

5- Kontrola temperature privremeno odmrzavanje.

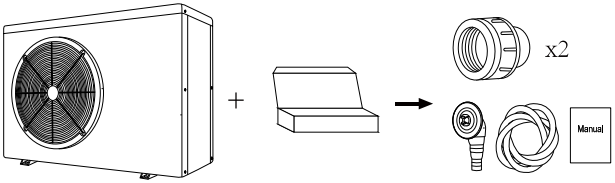
6- Kompresor međunarodne marke.

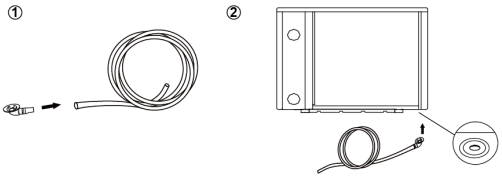
7- Laka instalacija i upotreba.

III. Opšte informacije

1. Sadržaj:

Posle otpakivanja proverite da li imate sve neophodne komponente:





2. Uslovi rada i domet:

Predmet		Domet
Radni opseg	Temperatura vazduha	0℃～43℃
Temp.podešavanje	Zagrevanje	18℃～40℃

Toplotna pumpa će imati idealne performanse u opsegu rada vazduh 15℃～25℃.

3. Prednosti različitih načina rada:

Toplotna pumpa ima dva načina rada: Pametan i Tihi režim. Imaju različite prednosti pod različitim uslovima.

REŽIM	PREPORUKE	PREDNOSTI
	Pametan režim standardno	Kapacitet zagrevanja: 20% to 100% kapaciteta inteligentna optimizacija Brzo zagrevanje
	Tihi režim Koristi se noću	Kapacitet zagrevanja: 20% to 80% kapaciteta Nivo zvuka: 3dB (A) Iniži od Pametnog režima.

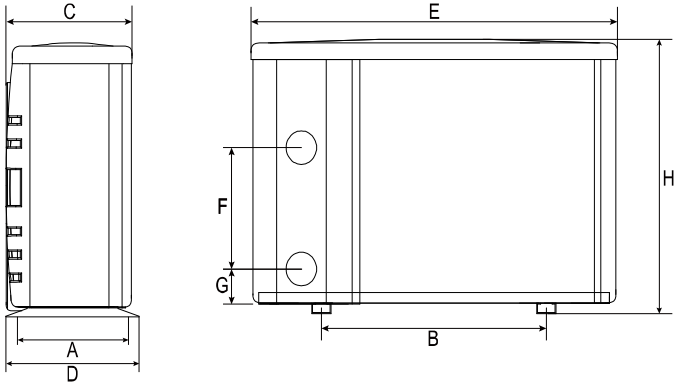
IV. TEHIČKI PARAMETAR

Model	BPNR07	BPNR09	BPNR13	BPNR17	BPNR21	BPNR24
Savetovani obim bazena (m^3)	15~30	20~35	30~50	35~65	45~80	55~90
Radna temperatura vazduha(℃)	0~43					
Uslov performansi: Vazduh 26°C, Voda 26°C, Vlažnost 80%						
Kapacitet zagrevanja (kW)	7.0	9.0	12.5	16.0	20.0	24.0
Uslov performansi: Vazduh 15°C, Voda 26°C, Vlažnost 70%						
Kapacitet zagrevanja(kW)	5.0	6.3	8.5	11.0	14.0	16.0
Nazivna ulazna snaga vazduha 15°C (kW)	0.29~1.04	0.36~1.40	0.47~1.78	0.59~2.34	0.75~3.04	0.86~3.48
Nazivna ulazna snaga vazduha 15°C (A)	1.26~4.52	1.57~6.09	2.02~7.74	2.52~10.17	3.26~13.21	3.74~15.13
Napajanje	230V/1 Ph/50Hz					
Savetovani vodeni tok (m^3/h)	2~4	3~4	4~6	6.5~8.5	8~10	10~12
Vodovodna cev izlazna Spec (mm)	50					
Neto dimenzijaLxWxH (mm)	872×349×654	872×349×654	872×349×654	962×349×654	962×349×754	961×420×758
Neto težina (kg)	42	46	49	60	68	68

Napomena:

1. Ovaj proizvod može dobro raditi pri temperaturi vazduha 0 + 43 , van ovog opsega neće biti zagarantovana efikasnost. Uzmite u obzir da su performanse i parametri grejača bazena različiti pod različitim uslovima
2. Povezani parametri podležu periodičnom prilagođavanju radi tehničkog poboljšanja bez daljeg obaveštenja. Za detalje pogledajte pločicu sa podacima.

V. Dimenzije



MODEL / UNIT=MM	A	B	C	D	E	F	G	H
BPNR07	324	560	330	349	872	310	74	654
BPNR09	324	560	330	349	872	250	74	654
BPNR13	324	560	330	349	872	320	74	654
BPNR17	324	590	330	349	962	350	74	654
BPNR21	324	590	325	349	962	350	74	754
BPNR24	395	590	392	420	961	460	74	758

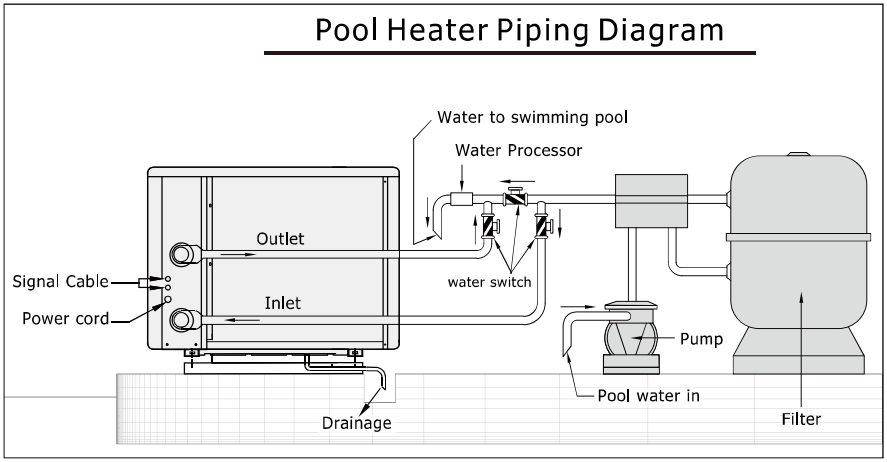
※ Gore navedeni podaci mogu se izmeniti bez najave.

Napomena:

Gornja slika je dijagram specifikacija grejača bazena, samo za tehničku instalaciju i referencu rasporeda. Proizvod se može periodično prilagođavati radi poboljšanja bez daljeg obaveštenja.

VI. Upustvo za instalaciju

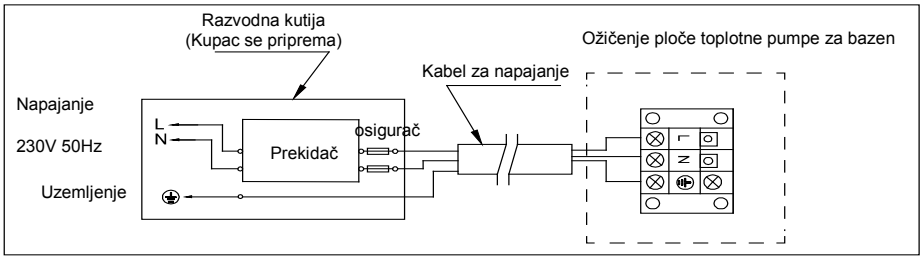
1. 1. Crtež za priključak vodovodnih cevi



(Napomena: Crtež je samo za demonstraciju, a raspored cevi je samo referenca.)

2. Povezivanje vaše žice za napajanje

Za napajanje: 230V 50Hz



Napomena：

⚠ Mora biti ožičen, nije dozvoljen utikač.

⚠ Grijač bazena mora biti dobro uzemljen.

3. Šema električnog ožičenja

Opcije za zaštitu uređaja i specifikacije kablova

MODEL		BPNR07	BPNR09	BPNR13	BPNR17	BPNR21	BPNR24
Prekidač	Nazivna struja	8.0	9.5	15.0	20.5	23.5	25.0
	Akciona struja mA	30	30	30	30	30	30
osigurač A		8.0	9.5	15.0	20.5	23.5	25.0
Kabl za napajanje (mm^2)		3×1.5	3×1.5	3×2.5	3×4	3×6	3×6
Signalni kabl (mm^2)		3×0.5	3×0.5	3×0.5	3×0.5	3×0.5	3×0.5

※ Gore navedeni podaci mogu se izmeniti bez najave.

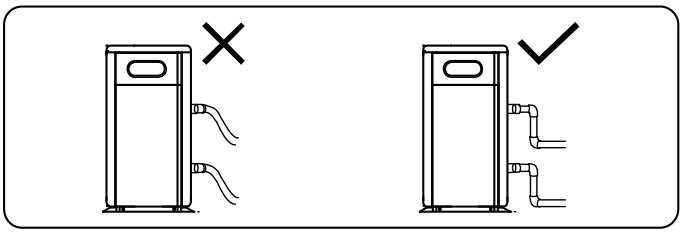
Napomena: Gornji podaci su prilagođeni kablu za napajanje ≤ 10m. Ako je kabl za napajanje ＞ 10m, prečnik žice mora biti povećan. Signalni kabl se može produžiti na najviše 50 m.

4. Uputi i zahtevi za instalaciju

5. Toplotnu pumpu mora instalirati profesionalni tim. Korisnici nisu kvalifikovani za samostalnu ugradnju, inače bi toplotna pumpa mogla biti oštećena i rizična po bezbednost korisnika.

A. Instalacija

1) Ulazni dovod i odvod vode ne mogu podneti težinu mekih cevi. Toplotna pumpa mora biti povezana čvrstim cevima!

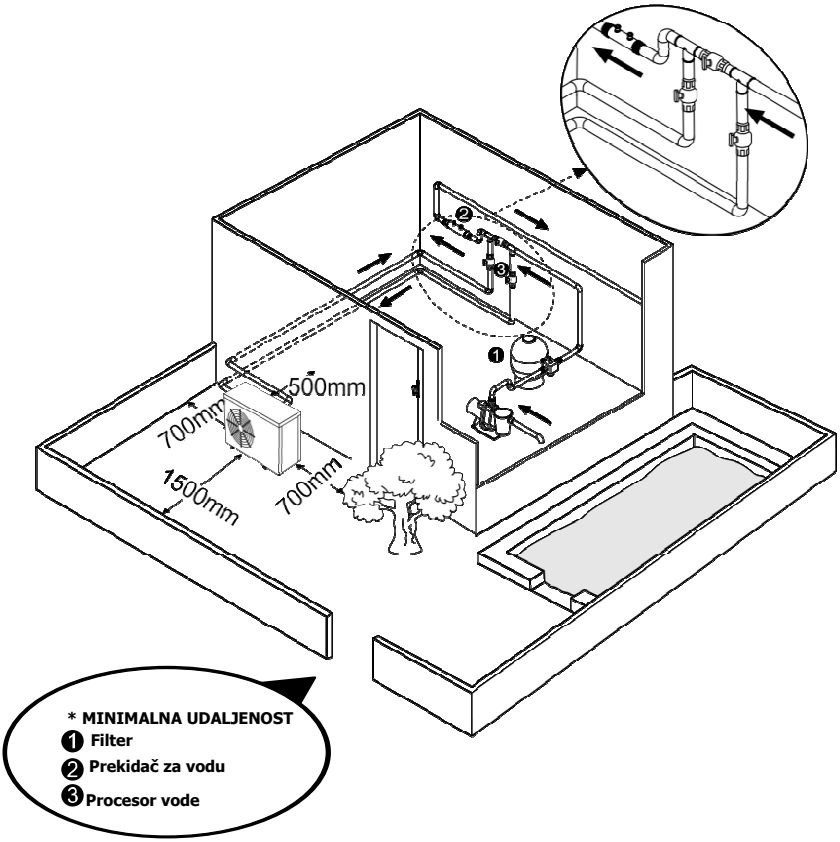


2) Da bi se zagarantovala efikasnost grejanja, dužina vodovodne cevi treba da bude ≤10m između bazena i toplotne pumpe.

B.Uputstvo za instalaciju

1) Lokacija i veličina

⚠Toplotnu pumpu treba instalirati na mestu sa dobrom ventilacijom



2)Okvir mora biti pričvršćen vijcima (M10) na betonski temelj ili nosače. Betonski temelj mora biti čvrst i pričvršćen; nosač mora biti dovoljno čvrst protiv rđe.

3) Molimo vas da ne postavljate supstance koje će blokirati protok vazduha u blizini ulaza ili izlaza, i nema prepreke unutar 50 cm iza glavne mašine ili će se efikasnost grejača smanjiti ili čak zaustaviti;

4) Mašini je potrebna dodatna pumpa (isporučuje korisnik). Preporučeni protok specifikacije pumpe: pogledajte Tehnički parametar, maks. lift

≥10m;

5) Kada mašina radi, sa dna će se ispustiti kondenzovana voda, obratite pažnju na nju. Držite mlaznicu za odvod (pribor) u rupu i dobro je zakačite, a zatim spojite cev za odvod kondenzacione vode.

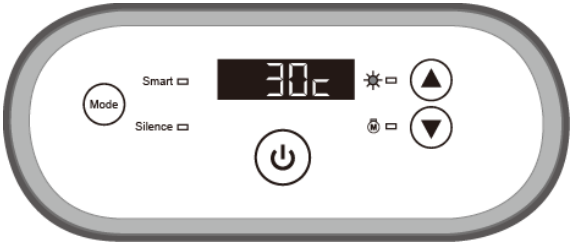
C. Ožičenje

1) Priključite na odgovarajuće napajanje, napon treba da bude u skladu sa nazivnim naponom proizvoda.
2) Mašinu dobro uzemljite
3) Ožičenjem mora da se bavi profesionalni tehničar prema šemi kola.
4) Podesite zaštitnik od curenja prema lokalnom kodu za ožičenje (radna struja curenja ≤ 30mA).
5) Raspored kabla za napajanje i signalnog kabla treba da bude uredan i da ne utiče jedni na druge.

D. Uključite ON nakon završetka svih konstrukcija ožičenja i ponovne provere.

VII. Uputstvo za upotrebu

Slike za ključeve



SIMBOL	OZNAKA	PRIMENA
⏻	Uključivanje ON/OFF	Pritisnite za uključivanje ili isključivanje toplotne pumpe
Mode	Režim	Opcija Pametan/Tihi režim Pametan režim:100%-20% kapaciteta Tihi režim:80%-20% kapaciteta
▲ ▼	Gore/ Dole	Opcija za podešavanje željene temp.vode
Ⓜ	Kompresor	Kada lampica svetli,kompresor radi

Napomena:

- ✧ Možete postaviti željenu temperaturu vode od 18 do 40 ℃.
- ✧ Sredina ekrana prikazuje temperaturu ulaznog bazena, kada se pritisnu tasteri gore i dole, digitalno treperenje prikazuje podešenu temperaturu.
- ✧ Nakon što uključite toplotnu pumpu, ventilator će početi da radi za 3 minuta. U narednih 30 sekundi,kompresor će početi sa radom. Tokom zagrevanja ☼▭ će svetleti.

2.2.1. Izbor režima

- ✧ Smart ▭ svetleće standardno kada uključite toplotnu pumpu.
- ✧ Pritisnite Mode da odaberete SILENCE režim, Silence ▭ će svetleti.

  Pritisnite Mode ponovo da izađete i uđete na SMART režim.

2.2.2. Obavezno odmrzavanje

- ✧ Kada se toplotna pumpa zagreva i kompresor radi neprekidno 10 minuta , pritisnite tastere "Mode" i "▼" 5 sekundi da pokrenete obavezno odmrzavanje. (Napomena: interval između obaveznog odmrzavanja treba da bude veći od 30 minuta.)
- ✧ Lampica za grejanje će treptati kada je toplotna pumpa u obaveznom ili automatskom odmrzavanju.
- ✧ Postupak i završetak obaveznog odmrzavanja isti su kao i automatsko odmrzavanje.

2.2.3. Prikaz temperature u ℃ i ℉:

Pritisnite' ▲ " i " ▼ " t5 sekundi da biste odabrali ℃ i ℉.

VIII. Testiranje

1. **Provera pre upotrebe**

A. . Proverite ugradnju cele mašine i cevnih priključaka prema crtežu za povezivanje cevi;

B. Proverite električnu instalaciju prema šemi električnih instalacija i priključak za uzemljenje;

C. Obavezno isključite prekidač za napajanje glavne mašine.

D. Proverite podešenu temperaturu;

E. Proverite ulaz i izlaz vazduha.

2. **Proba**

A. Korisnik mora „pokrenuti pumpu pre mašine i isključiti mašinu pre pumpe", inače će mašina biti oštećena;

B. Korisnik treba da pokrene pumpu, proveri da li curi voda; a zatim podesite odgovarajuću temperaturu u termostatu, a zatim uključite napajanje;

C. Da bi zaštitio grejač bazena, mašina je opremljena funkcijom pokretanja sa vremenskim odmakom, prilikom pokretanja mašine duvaljka će raditi 1 minutu ranije od kompresora;

D. Nakon pokretanja grejača bazena, proverite da li ima neuobičajene buke iz mašine.

IX. Preventivne mere

1. **Pažnja:**

A. Podesite odgovarajuću temperaturu kako biste postigli ugodnu temperaturu vode kako biste izbegli pregrevanje ili prekomerno hlađenje;

B. Nemojte slagati supstance koje mogu blokirati protok vazduha u blizini ulaza ili izlaza, jer će se efikasnost grejača smanjiti ili čak

zaustaviti;

C. Molimo vas da ne stavljate ruke u izlaz grejača bazena i da ne uklanjate zaslon ventilatora u bilo kom trenutku;

D. Ako postoje abnormalni uslovi poput buke, mirisa, dima i curenja električne energije, odmah isključite mašinu i kontaktirajte lokalnog prodavca. Ne pokušavajte da ga popravite sami;

E. Ne upotrebljavajte ili skladištite zapaljivi gas ili tečnost kao što su razređivači, boja i gorivo kako biste izbegli požar;

F. Da biste optimizovali efekat grejanja, instalirajte izolaciju za očuvanje toplote na cevi između bazena i grejača. Tokom perioda rada grejača bazena, koristite preporučeni pokrivač na bazenu;

G. Spajanje cevi bazena i grejača trebalo bi da bude ≤10m, ili se ne može obezbediti efekat grejanja grejača;

H. H. Ova serija mašina može postići visoku efikasnost pri temperaturi vazduha od + 15 ℃ ～ + 25 ℃.

2. **Sigurnost**

A. Molim vas, držite glavni prekidač za napajanje daleko od dece;

B. Kada se tokom rada dogodi prekid napajanja, a kasnije se napajanje obnovi, grejač će se automatski pokrenuti. Zato vas molimo da isključite napajanje kada dođe do prekida napajanja i resetujete temperaturu kada se napajanje obnovi;

C. Molimo isključite glavno napajanje po gromovima i olujnim nevremenima da biste sprečili oštećenja mašine koja su prouzrokovana gromom;

D. Ako je mašina dugo zaustavljena, isključite napajanje i ispustite vodu iz mašine tako što ćete otvoriti slavinu dovodne cevi.

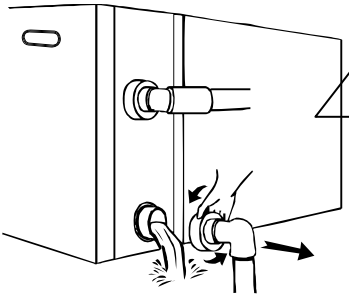
X. Održavanje

Oprez: Opasnost od strujnog udara

"Odsječeno" napajanje grijača prije čišćenja, pregleda i popravka

A. U zimskoj sezoni kada ne plivate:

1. Isključite napajanje da biste sprečili oštećenje mašine
2. Ispraznite vodu iz mašine.



!! Bitan:
Odvrnite mlaznicu za vodu na dovodnoj cijevi da voda teče van.
Kada se voda u mašini zimi zamrzne, izmjenjivač topline od titana može se oštetiti.

3. Pokrijte telo mašine kada se ne koristi.

B. Molimo očistite ovu mašinu deterdžentima za domaćinstvo ili čistom vodom, NIKADA ne koristite benzin, razređivače ili bilo koje slično gorivo.

C. Redovno proveravajte vijke, kablove i veze.

XI. Rešavanje problema sa uobičajenim greškama

GREŠKE	RAZLOG	REŠENJE
Toplotna pumpa ne radi	Nema struje	Sačekati dok se struja ne popravi
	Prekidač za napajanje je isključen	Uključite prekidač
	Osigurač je izgoreo	Proverite i zamenite osigurač
	Prekidač je isključen	Proverite i uključite prekidač
Ventilator radi, ali sa nedovoljnim grejanjem	Isparivač blokiran	Uklonite prepreke
	Izlaz za vazduh je blokiran	Uklonite prepreke
	3 minuta odlaganja starta	Sačekajte strpljivo
Ekran je normalan, ali nema grejanja	Podeš.temp. je jako niska	Podesite odgovarajuću temp.
	3 minuta odlaganja starta	Sačekajte strpljivo
Ako gornja rešenja ne funkcionišu, kontaktirajte svog instalatera sa detaljnim informacijama i brojem modela. Ne pokušavajte da ga popravite sami		

Napomena: Ako se dogode sledeći uslovi, odmah zaustavite mašinu i odmah isključite napajanje, a zatim kontaktirajte svog prodavca:

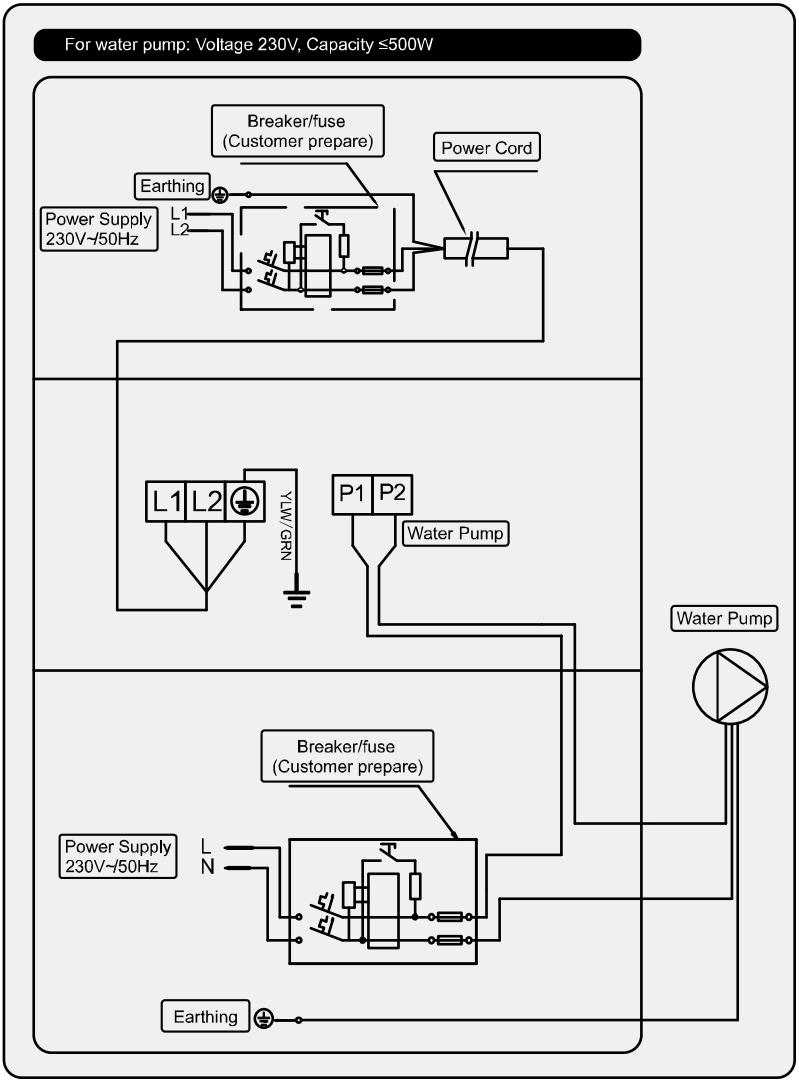
a） netačno prebacivanje;

b） Osigurač je često prekinut ili je preskočio prekidač curenja.

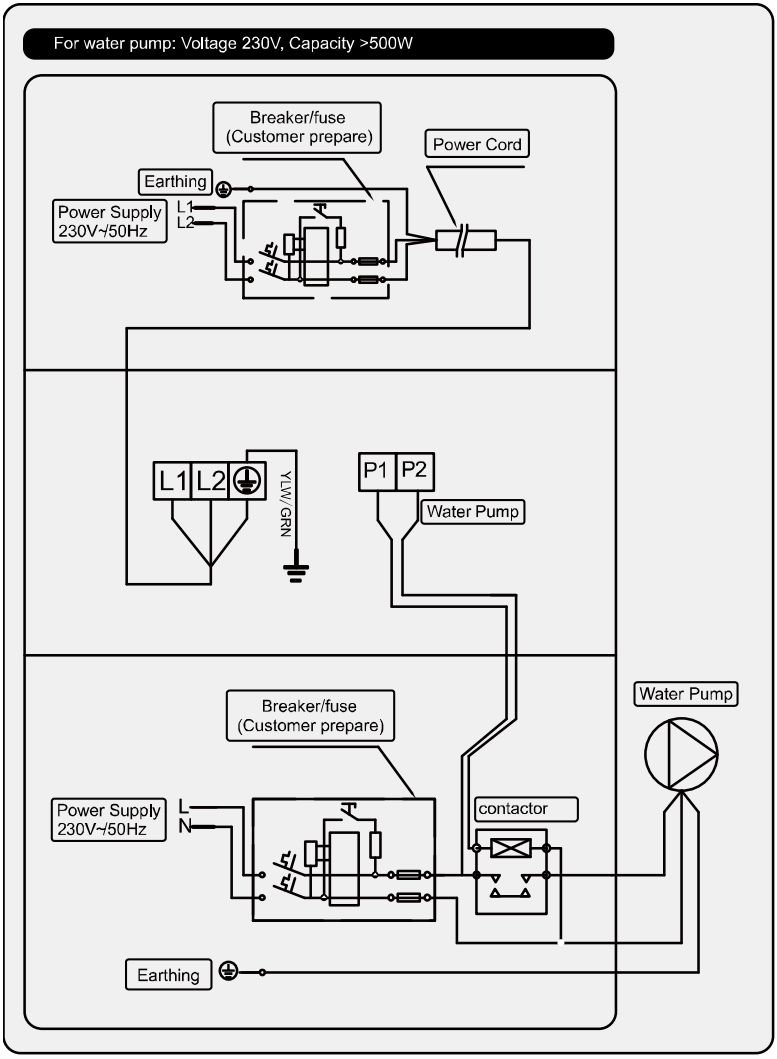
Kodovi Grešaka

NO.	PRIKAZI	NIJE OPIS KVARA
1	E3	Bez zaštite od vode
2	E5	Napajanje prekoračuje opseg rada
3	E6	Prevelika razlika u temperaturi između ulazne i izlazne vode (nedovoljna zaštita od protoka vode)
4	Eb	Previsoka ili preniska temperatura okoline
5	Ed	Podsetnik protiv smrzavanja
NO.	**PRIKAZI**	**OPIS KVARA**
1	E1	Zaštita od visokog pritiska
2	E2	Zaštita od niskog pritiska
3	E4	Trofazna zaštita sekvencom (samo tri faze)
4	E7	Temp izlaza za vodu previsoka ili preniska zaštita
5	E8	Visoka temperatura izduvnih gasova
6	EA	Zaštita od pregrevanja isparivača (samo u režimu hlađenja
7	P0	Kvar komunikacije kontrolera
8	P1	Kvar senzora temperature ulaznog voda
9	P2	Kvar senzora temperature pri izlazu vode
10	P3	Kvar senzora temperature ispusta gasa
11	P4	Evaporator coil pipe temp sensor failure
12	P5	Gas return temp sensor failure
13	P6	Cooling coil pipe temp sensor failure
14	P7	Ambient temp sensor failure
15	P8	Cooling plate sensor failure
16	P9	Current sensor failure
17	PA	Restart memory failure
18	F1	Compressor drive module failure
19	F2	PFC module failure
20	F3	Compressor start failure
21	F4	Compressor running failure
22	F5	Inverter board over current protection
23	F6	Inverter board overheat protection
24	F7	Current protection
25	F8	Cooling plate overheat protection
26	F9	Fan motor failure
27	Fb	Power filter plate No-power protection
28	FA	PFC module over current protection

XII. Appendix 1: Heating priority (Optional)

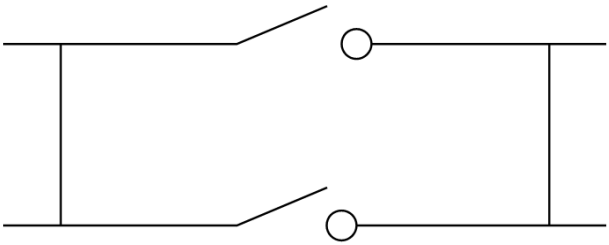


XIII. Appendix 2: Heating priority (Optional)



Parallel connection with filtration clock

A: tajmer pumpe za vodu

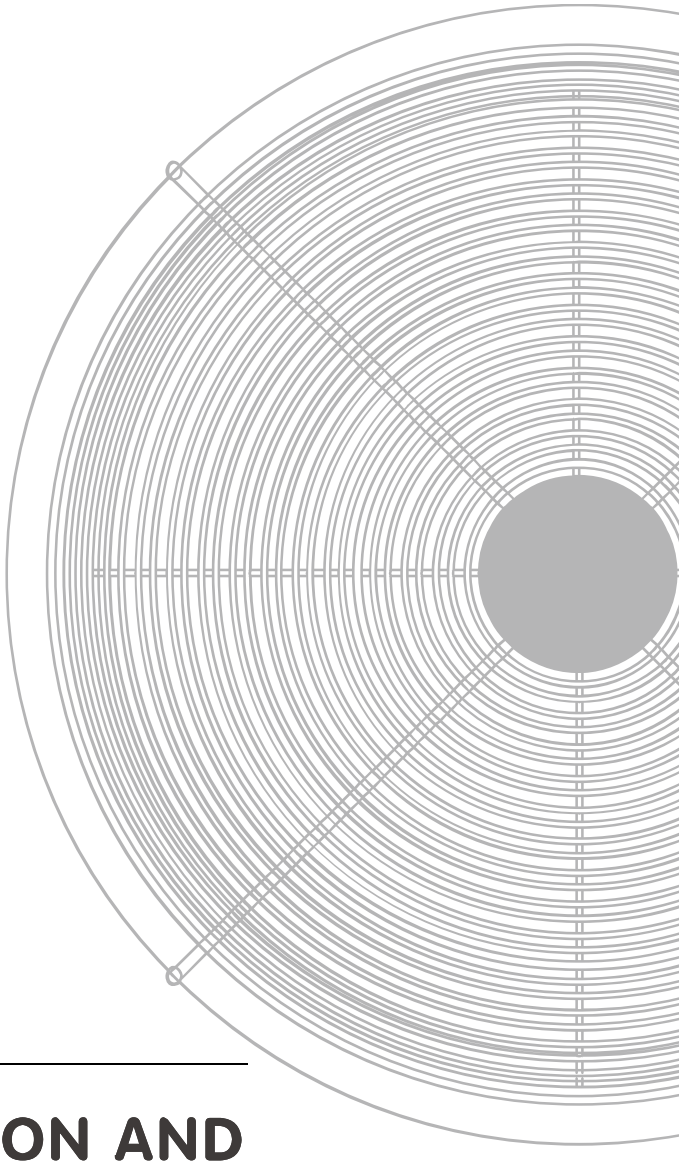


B: ožičenje pumpe za vodu pumpe za vodu

Napomena: Instalacijski program treba spojiti paralelno s B (kao na gornjoj slici). Za pokretanje pumpe za vodu priključeni su uslovi A ili B. Da biste zaustavili pumpu za vodu, treba odvojiti i A i B.

TermoPool
grejanje & bazeni

HidroTerm
grejanje & bazeni



INSTALLATION AND USER MANUAL

INVERTER SWIMMING POOL HEAT PUMP

Content

Warning：

a. Please read the following tips before installation, use and maintenance.

b. Installation, removal and maintenance must be carried out by professional personnel in accordance with the instructions.

c. Gas leakage test must be done before and after installation.

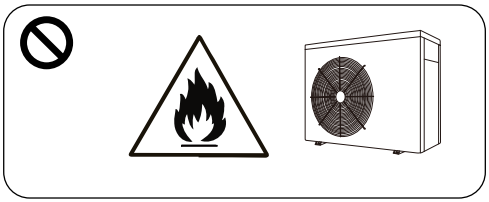
1. Use

a. It must be installed or removed by professionals, and it is forbidden to dismantle and refit without permission.

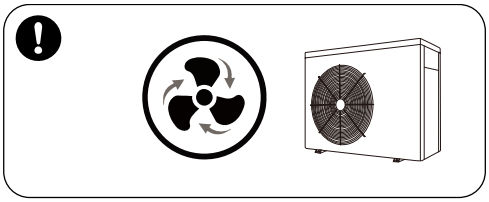
b. **Don't put obstacles before the air inlet and outlet of the heat pump.**

2. Installation

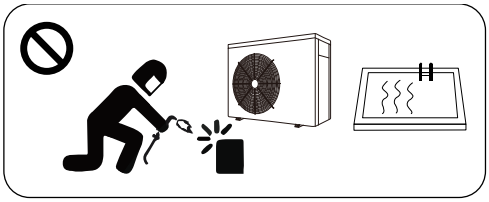
a. This product must be kept away from any source of fire.



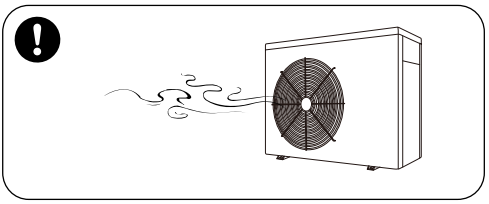
b. The installation can't be in a closed environment or indoors, and must be kept well ventilated.



c. Vacuum completely before welding, field welding is not allowed, welding can only be performed by professional personnel in professional maintenance center.



d. Installation must be stopped if any gas leakage, and the unit must be returned to professional maintenance center.



3. Transportation & Storage

a. Sealing is not allowed during transportation

b. Transporting goods at a constant speed is needed to avoid sudden acceleration or sudden braking, so as to reduce the collision of goods.

c. The unit must be far away from any source of fire.

d. Storage place must be bright, wide, open and good ventilation, ventilation equipment is required.

4. Maintenance Notice

a. If maintenance or scrap is required, contact an authorized service center nearby

b. Qualification requirement

All operators who dispose gas must be qualified by valid certification which issued by professional agency.

c. Please strictly comply with the requirement from manufacturer when maintenance or filling gas. please refer to the technical service manual.

Thank your choosing our product and your trust in our company. To help you get maximum pleasure from using this product, please read this instruction manual carefully and operate strictly according to the user manual before starting the machine, otherwise the machine may be damaged or cause you unnecessary harm.

I. Application

1- Set swimming pool water temp efficiently and economically to provide you comfort and pleasure.
2- User may choose the model technical parameter according to professional guide, this series of swimming pool heater has been optimized in factory (refer to technical parameter table).

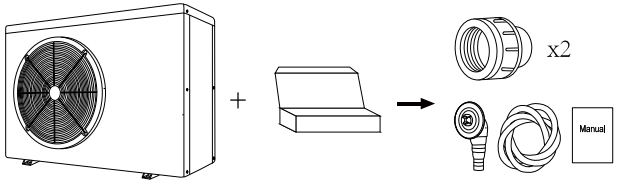
II. Features

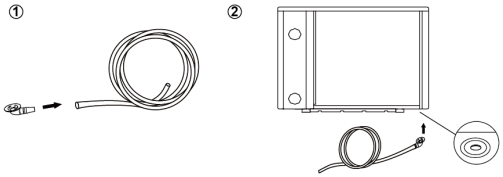
1- High efficient titanium heat exchanger.
2- Sensitive and accurate temp control and water temp display.
3- High pressure and low pressure protection.
4- Exceeding low temp auto stop protection.
5- Temp control compulsory defrosting.
6- International brand compressor.
7- Easy installation and operation.

III. General information

1. Contents:

After unpacking, please check if you have all the following components.





2. Operating conditions and range:

Items		Range
Operating range	Air temp	0℃～43℃
Temp. setting	heating	18℃～40℃

The heat pump will have ideal performance in the operation range Air 15℃～25℃.

3. Advantages of different modes:

The heat pump has two modes: Smart and Silence. They have different advantages under different conditions.

MODE	RECOMMENDATION	ADVANTAGES
	Smart mode As standard	Heating capacity: 20% to 100% capacity Intelligent optimization Fast heating
	Silence mode Use at night	Heating capacity: 20% to 80% capacity Sound level: 3dB (A) lower than Smart mode.

IV. Technical Parameter

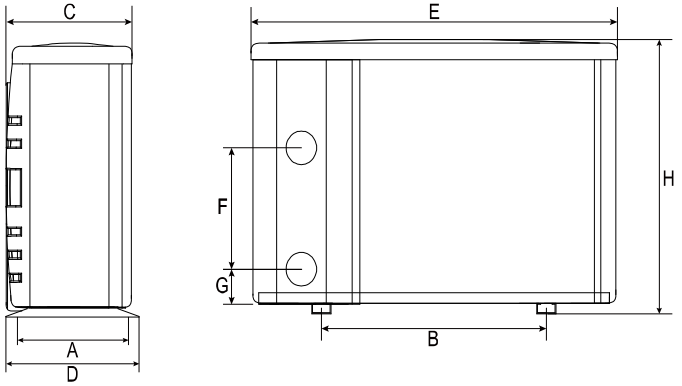
Model	BPNR07	BPNR09	BPNR13	BPNR17	BPNR21	BPNR24
Advised pool volume (m^3)	15~30	20~35	30~50	35~65	45~80	55~90
Operating air temperature (℃)	0~43					
Performance Condition: Air 26°C, Water 26°C, Humidity 80%						
Heating capacity (kW)	7.0	9.0	12.5	16.0	20.0	24.0
Performance Condition: Air 15°C, Water 26°C, Humidity 70%						
Heating capacity (kW)	5.0	6.3	8.5	11.0	14.0	16.0
Rated input power at air 15°C (kW)	0.29~1.04	0.36~1.40	0.47~1.78	0.59~2.34	0.75~3.04	0.86~3.48
Rated input current at air 15°C (A)	1.26~4.52	1.57~6.09	2.02~7.74	2.52~10.17	3.26~13.21	3.74~15.13
Power supply	230V/1 Ph/50Hz					
Advised water flux (m^3/h)	2~4	3~4	4~6	6.5~8.5	8~10	10~12
Water pipe in-out Spec (mm)	50					
Net Dimension LxWxH (mm)	872×349×654	872×349×654	872×349×654	962×349×654	962×349×754	961×420×758
Net Weight (kg)	42	46	49	60	68	68

Notice:

1. This product can work well under air temp 0℃～+43℃, efficiency will not be guaranteed out of this range. Please take into consideration that the pool heater performance and parameters are different under various conditions.

2. Related parameters are subject to adjustment periodically for technical improvement without further notice. For details please refer to nameplate.

V. Dimension



MODEL	UNIT=MM	A	B	C	D	E	F	G	H
	BPNR07	324	560	330	349	872	310	74	654
	BPNR09	324	560	330	349	872	250	74	654
	BPNR13	324	560	330	349	872	320	74	654
	BPNR17	324	590	330	349	962	350	74	654
	BPNR21	324	590	325	349	962	350	74	754
	BPNR24	395	590	392	420	961	460	74	758

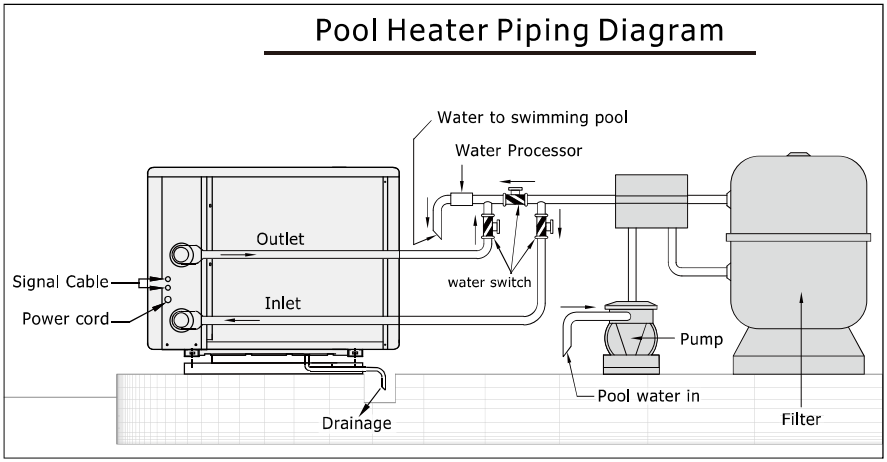
※ Above data is subject to modification without notice.

Note:

The picture above is the specification diagram of the pool heater, for technician's installation and layout reference only. The product is subject to adjustment periodically for improvement without further notice.

VI. Installation instruction

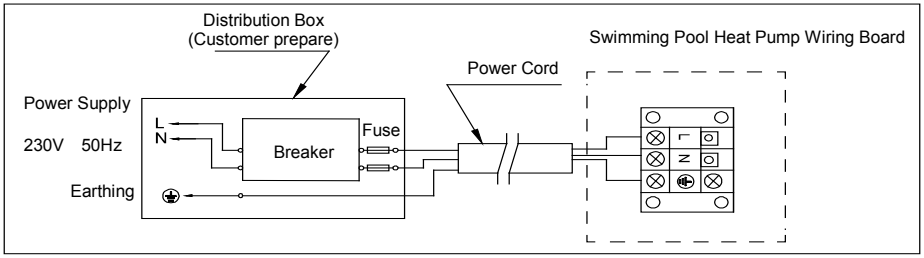
1. Drawing for water pipes connection



(Notice: The drawing is just for demonstration, and layout of the pipes is only for reference.)

2. Connecting your power wire

For power supply: 230V 50Hz



Note:

⚠ Must be hard wired, no plug allowed.

⚠ The swimming pool heater must be earthed well.

3. Electric Wiring Diagram

Options for protecting devices and cable specification

MODEL		BPNR07	BPNR09	BPNR13	BPNR17	BPNR21	BPNR24
Breaker	Rated Current A	8.0	9.5	15.0	20.5	23.5	25.0
	Rated Residual Action Current mA	30	30	30	30	30	30
Fuse A		8.0	9.5	15.0	20.5	23.5	25.0
Power Cord (mm^2)		3×1.5	3×1.5	3×2.5	3×4	3×6	3×6
Signal cable (mm^2)		3×0.5	3×0.5	3×0.5	3×0.5	3×0.5	3×0.5

※ Above data is subject to modification without notice.

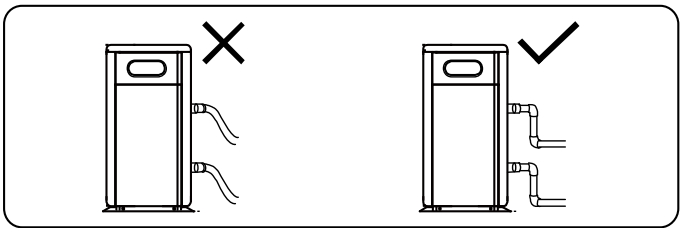
Note: The above data is adapted to power cord ≤ 10m. If power cord is＞10m, wire diameter must be increased. The signal cable can be extended to 50m at most.

4. Installation instruction and requirement

The heat pump must be installed by a professional team. The users are not qualified to install by themselves, otherwise the heat pump might be damaged and risky for users' safety.

A. Installation

1) The inlet and outlet water unions can't bear the weight of soft pipes. The heat pump must be connected with hard pipes!

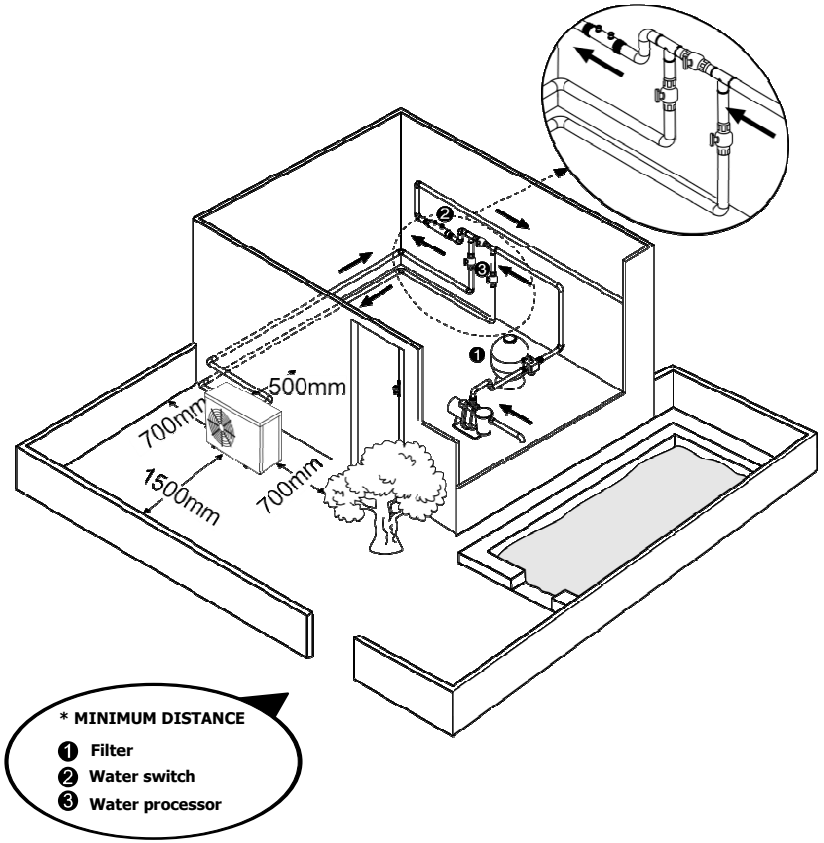


2) In order to guarantee the heating efficiency, the water pipe length should be ≤10m between the pool and the heat pump.

B. Installation instruction

1) Location and size

⚠ The heat pump should be installed in a place with good ventilation



2) The frame must be fixed by bolts (M10) to concrete foundation or brackets. The concrete foundation must be solid and fastened; the bracket must be strong enough antirust treated;

3) Please don't stack substances that will block air flow near inlet or outlet area, and there is no barrier within 50cm behind the main machine, or the efficiency of the heater will be reduced or even stopped;

4) The machine needs an appended pump (Supplied by the user). The

recommended pump specification-flux: refer to Technical Parameter, Max. lift ≥10m;

5) When the machine is running, there will be condensation water discharged from the bottom, please pay attention to it. Please hold the drainage nozzle (accessory) into the hole and clip it well, and then connect a pipe to drain the condensation water out.

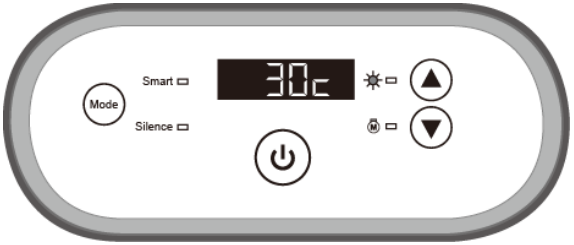
C. Wiring

1) Connect to appropriate power supply, the voltage should comply with the rated voltage of the products.
2) Earth the machine well.
3) Wiring must be handled by a professional technician according to the circuit diagram.
4) Set leakage protector according to the local code for wiring (leakage operating current ≤ 30mA).
5) The layout of power cable and signal cable should be orderly and not affecting each other.

D. Switch on after finishing all wiring construction and re-checking.

VII. Operation instruction

Picture for keys



SYMBOL	DESIGNATION	OPERATION
⏻	Power ON/OFF	Press to power on or off the heat pump
Mode	Mode	Press to select Smart/Silence mode Smart mode:100%-20% capacity Silence mode:80%-20% capacity
▲ ▼	Up/ Down	Press to set desired water temperature
Ⓜ	Compressor	When the light is on, the compressor is running.

Note:

- ✧ You may set the desired water temperature from 18 to 40℃.
- ✧ The center of the screen shows the inlet pool temperature, when the up and down keys are pressed, the digital flashing displays the set temperature.
- ✧ After you turn on the heat pump, the fan will start to run in 3 minutes. In another 30 seconds, the compressor will start to run.
- ✧ During heating, the ☼▭ will be light.

2.2.1. Mode selections

- ✧ Smart ▭ will be light as standard when you turn on the heat pump.
- ✧ Press the Mode button to enter the Silence mode, the Silence ▭ will be light.

  Press the Mode button again to exit and enter the SMART mode.

2.2.2. Compulsory defrosting

- ✧ When the heat pump is heating and the compressor is working continuously for 10 minutes, press both "Mode" and "▼" buttons for 5 seconds to start compulsory defrosting. (Note: the interval between compulsory defrosting should be more than 30 minutes.)
- ✧ The heating light will be twinkling when heat pump is in compulsory or auto defrosting.
- ✧ The running process and ending of compulsory defrosting are the same as auto-defrosting.

2.2.3. Temperature display conversion between ℃ and ℉:

Press " ▲ " and " ▼ " together for 5 seconds to switch between ℃ and ℉.

VIII. Testing

1. Inspection before use

A. Check installation of the whole machine and the pipe connections according to the pipe connecting drawing;
B. Check the electric wiring according to the electric wiring diagram and earthing connection;
C. Make sure that the main machine power switch is off;
D. Check the temperature setting;
E. Check the air inlet and outlet.

2. Trial

A. The user must "Start the Pump before the Machine, and Turn off the Machine before the Pump", or the machine will be damaged;
B. The user should start the pump, check for any leakage of water; and then set suitable temperature in the thermostat, and then switch on power supply;
C. In order to protect the swimming pool heater, the machine is equipped with a time lag starting function, when starting the machine, the blower will run 1 minutes earlier than the compressor;
D. After the swimming pool heater starts up, check for any abnormal noise from the machine.

IX. Precautions

1. Attention

A. Set proper temperature in order to get comfortable water temperature to avoid overheating or overcooling;
B. Please don't stack substances that can block air flow near inlet or outlet area, or the efficiency of the heater will be reduced or even

stopped;

C. Please don't put hands into outlet of the swimming pool heater, and don't remove the screen of the fan at any time;
D. If there are abnormal conditions such as noise, smell, smoke and electrical leakage, please switch off the machine immediately and contact the local dealer. Don't try to repair it yourself;
E. Don't use or stock combustible gas or liquid such as thinners, paint and fuel to avoid fire;
F. In order to optimize the heating effect, please install heat preservation insulation on pipes between swimming pool and the heater. During running period of the swimming pool heater, please use a recommended cover on the swimming pool;
G. Connecting pipes of the swimming pool and the heater should be ≤10m, or the heating effect of the heater cannot be ensured;
H. This series of machines can achieve high efficiency under air temperature of +15℃～+25℃.

2. Safety

A. Please keep the main power supply switch far away from the children;
B. When a power cut happens during running, and later the power is restored, the heater will start up automatically. So please switch off the power supply when there is a power cut, and reset temp when power is restored;
C. Please switch off the main power supply in lightning and storm weather to prevent from machine damage that caused by lightning;
D. If the machine is stopped for a long time, please cut off the power supply and drain water clear of the machine by opening the tap of inlet pipe.

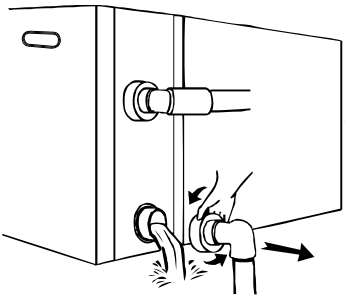
X. Maintenance

Caution: Danger of electric shock

"Cut off" power supply of the heater before cleaning, examination and repairing

A. In winter season when you don't swim:

1. Cut off power supply to prevent any machine damage
2. Drain water clear of the machine.



!!Important:
Unscrew the water nozzle of inlet pipe to let the water flow out.
When the water in machine freezes in winter season, the titanium heat exchanger may be damaged.

3. Cover the machine body when not in use.

B. Please clean this machine with household detergents or clean water, NEVER use gasoline, thinners or any similar fuel.

C. Check bolts, cables and connections regularly.

XI. Trouble shooting for common faults

FAILURE	REASON	SOLUTION
Heat pump doesn't run	No power	Wait until the power recovers
	Power switch is off	Switch on the power
	Fuse burned	Check and change the fuse
	The breaker is off	Check and turn on the breaker
Fan running but with insufficient heating	evaporator blocked	Remove the obstacles
	Air outlet blocked	Remove the obstacles
	3 minutes start delay	Wait patiently
Display normal, but no heating	Set temp. too low	Set proper heating temp.
	3 minutes start delay	Wait patiently
If above solutions don't work, please contact your installer with detailed information and your model number. Don't try to repair it yourself.		

Note: If the following conditions happen, please stop the machine immediately, and cut off the power supply immediately, then contact your dealer:

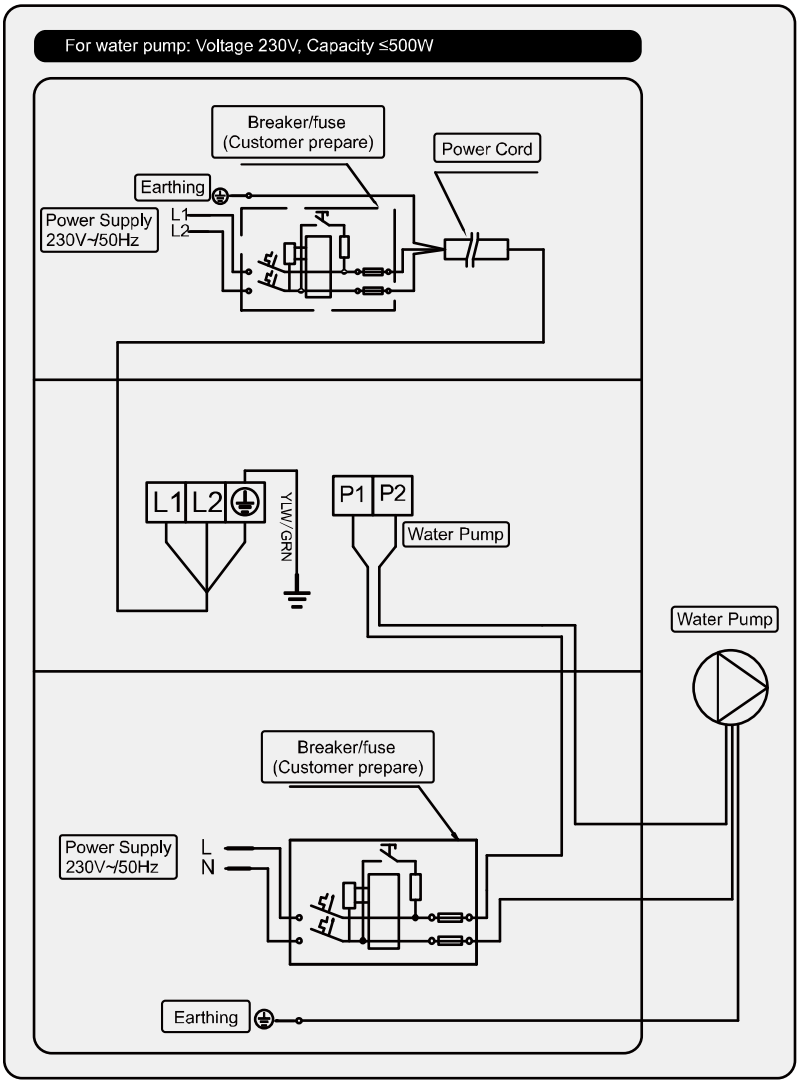
a）Inaccurate switch action;

b）The fuse is frequently broken or leakage circuit breaker jumped.

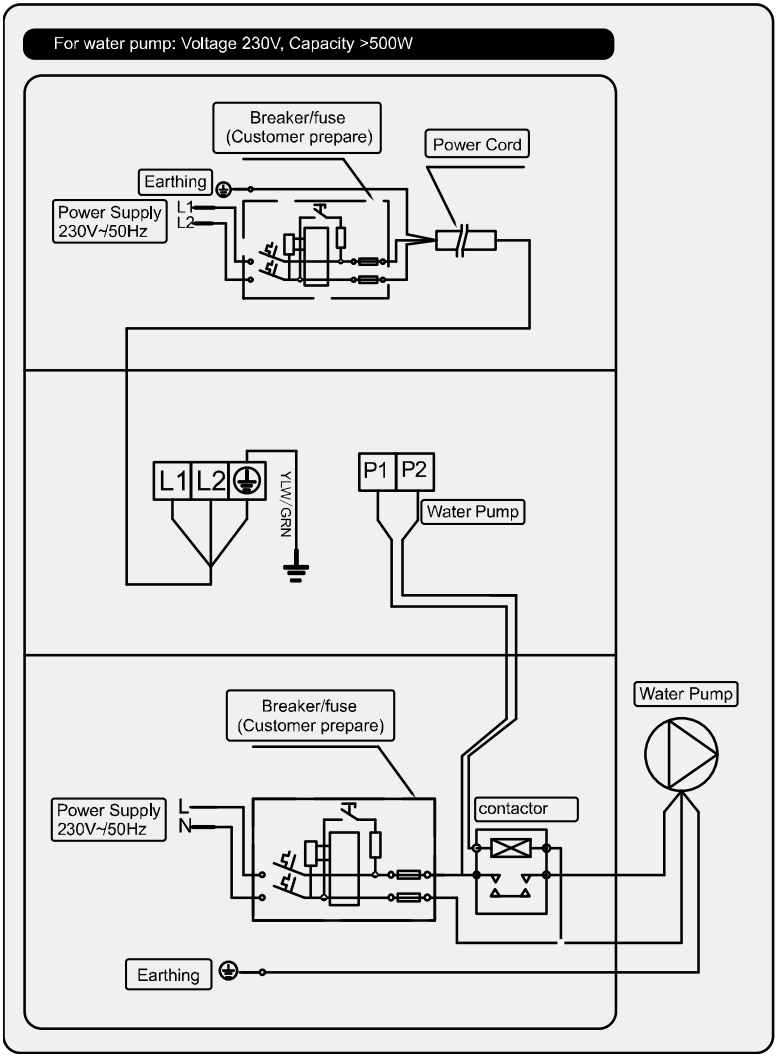
Failure code

NO.	DISPLAY	NOT FAILURE DESCRIPTION
1	E3	No water protection
2	E5	Power supply excesses operation range
3	E6	Excessive temp difference between inlet and outlet water(Insufficient water flow protection)
4	Eb	Ambient temperature too high or too low protection
5	Ed	Anti-freezing reminder
NO.	**DISPLAY**	**FAILURE DESCRIPTION**
1	E1	High pressure protection
2	E2	Low pressure protection
3	E4	3 phase sequence protection (three phase only)
4	E7	Water outlet temp too high or too low protection
5	E8	High exhaust temp protection
6	EA	Evaporator overheat protection (only at cooling mode)
7	P0	Controller communication failure
8	P1	Water inlet temp sensor failure
9	P2	Water outlet temp sensor failure
10	P3	Gas exhaust temp sensor failure
11	P4	Evaporator coil pipe temp sensor failure
12	P5	Gas return temp sensor failure
13	P6	Cooling coil pipe temp sensor failure
14	P7	Ambient temp sensor failure
15	P8	Cooling plate sensor failure
16	P9	Current sensor failure
17	PA	Restart memory failure
18	F1	Compressor drive module failure
19	F2	PFC module failure
20	F3	Compressor start failure
21	F4	Compressor running failure
22	F5	Inverter board over current protection
23	F6	Inverter board overheat protection
24	F7	Current protection
25	F8	Cooling plate overheat protection
26	F9	Fan motor failure
27	Fb	Power filter plate No-power protection
28	FA	PFC module over current protection

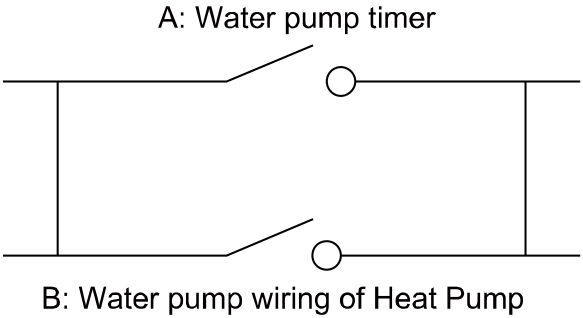
XII. Appendix 1: Heating priority (Optional)



XIII. Appendix 2: Heating priority (Optional)



Parallel connection with filtration clock



Note: The installer should connect A parallel with B (as above picture). To start the water pump, condition A or B is connected. To stop the water pump, both A and B should be disconnected.

Version：Dg9INr32