Certikin
FLUIDRA

FREQUENCY INVERTER

INSTALLATION & OPERATION MANUAL

Follow this QR code for installation and operation manual

CONTENTS

SAFETY SYMBOLS

	Read and keep the manual in a safe place
	Warning
	Caution: Risk of electrical shock
	Do not touch the heat sink
	e-Waste: Dispose at recycling centre

CE

1. IMPORTANT SAFETY INSTRUCTIONS

To make the best use of this energy saving device and to avoid potential risk of fire, electrical shock, SERIOUS injury to people or damage to property, please read this user guide carefully before installation and keep it for future reference.

This device can ONLY be used with pool pumps with permanent split capacitor motor. The schematic diagram below shows a typical single speed swimming pool pump motor.

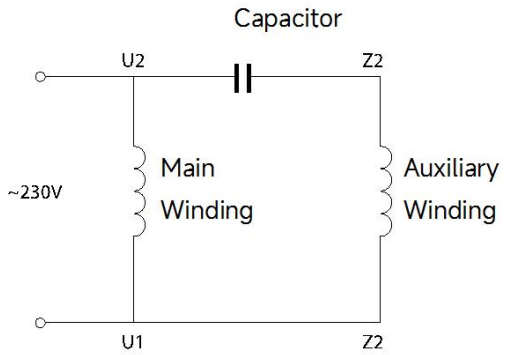


Fig.1

1.1 It is NOT compatible with:

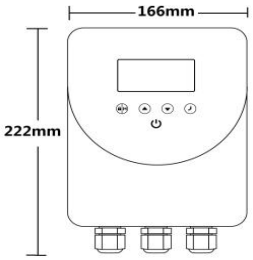
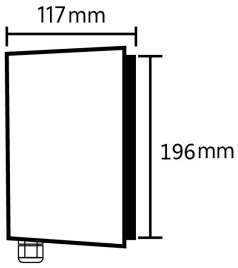
a. Single (Three) phase motors with centrifugal switch
b. Pool pump motors with start relays or switch
c. Series or DC motors
d. Pool pump motors with faults in their rotors or capacitors
e. Shaded-pole asynchronous motors

If you are not sure of the compatibility of your pool pump with this device , please contact your supplier or manufacturer before proceeding with

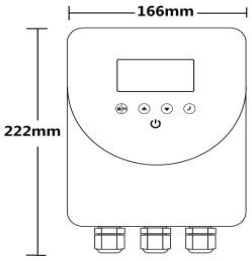
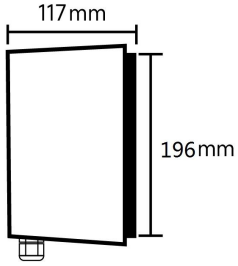
1.2 An RCD with a rated residual current not exceeding 30mA must be used with this product.

2. TECHNICAL DATA

2.1 iSAVER^{X} 1100

Model	iSAVER^{X} 1100	Dimensions
Input power	1 phase AC	
Input voltage	220~240V	
Input frequency	50Hz	
Output power	Max 1.1kW	
Output Voltage	1ph, 0~240V	
Pump type	Single phase	
Max. current	Max 6A	
Speed range	1200~2900 rpm	
Cooling	Ventilation and Fan cooling	
Net Dimension (L*H*W)	222*117*166mm	

2.2 iSAVER^{X} 1100C

Model	iSAVER^{X} 1100C	Dimensions
Input power	1 phase AC	
Input voltage	220~240V	
Input frequency	50Hz	
Output power	Max 1.1kW	
Output Voltage	3ph, 0~240V	
Pump type	Three phases	
Max. current	Max 4.5A	
Speed range	1200~2900 rpm	
Cooling	Ventilation and Fan cooling	
Net Dimension (L*H*W)	222*117*166mm	

3. BEFORE INSTALLATION

Upon receipt of this device, check for damage to the packaging or product.
DO NOT PROCEED with installation if any damage is found; contact your supplier. Do not use extension leads with the device. This can pose a

Make sure the place you choose for installation meets the following conditions:

- Ambient temperature from -10~40°C
- 45 to 90 percent relative humidity, non-condensing
- Less than 1000m above sea level
- Keep out of direct sunlight
- Good ventilation

For efficient cooling, please make sure it is installed with a minimum clearance surrounding it. (Fig.2)
Blocked ventilation or an enclosed space with limited air flow may cause overheating or potential operational failure of the inverter.

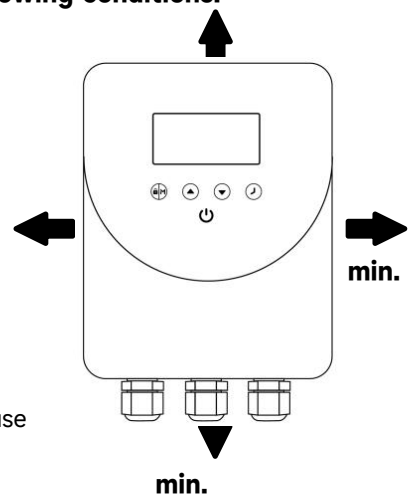


Fig.2

4. CONNECTING TO POOL PUMP

Please follow these steps and the wiring diagram for correct connection. The warranty may be compromised if the device is not installed in accordance with instructions described in this manual.

Only ONE pump can be connected to the inverter. Please do not connect any other appliance to the output.

Mark the hole locations on the wall, drill and insert the expansion plugs supplied, fit the screws and hang the device on the screws.

4.1 Turn off all electrical supply to the pool pump, unplug it from the main switch.

4.2 Plug the pool pump into the device's power output socket (marked PUMP CONNECTION ONLY). It is recommended that the total length of the output cable of the device and the power cable of the pool pump shall not exceed 2m.

4.3 Plug the device into the power supply.

4.4 In order to reduce the electromagnetic interference, please connect the ground wire on the device to the ground terminal of the pool pump motor. (It's not necessary to connect ground wire if there is no plug of the output cable of the device)

4.5 Switch on the device, now the device is ready to operate.

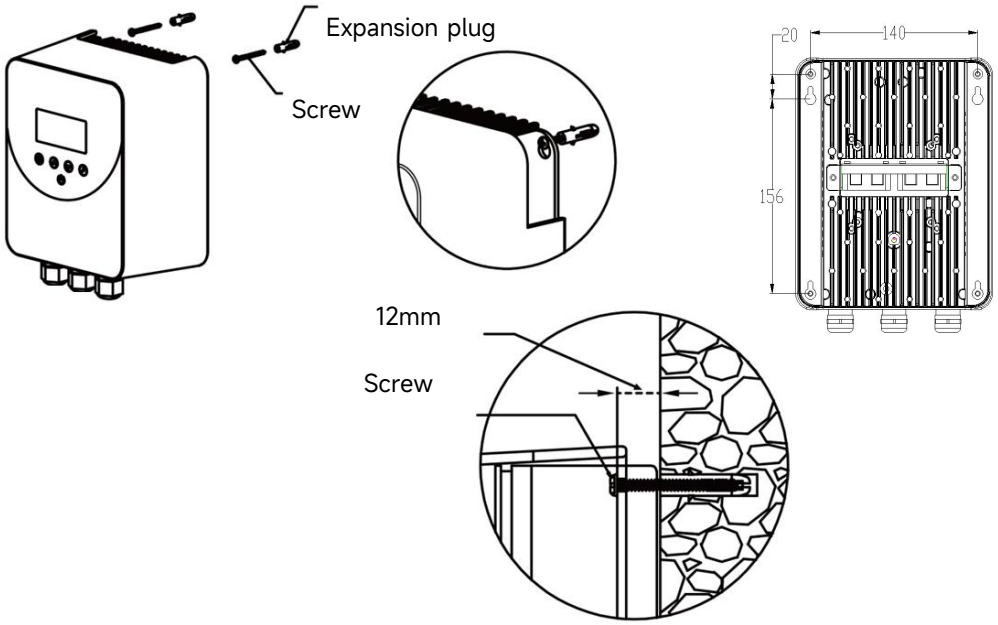


Fig.3 Wall mounted installation diagram

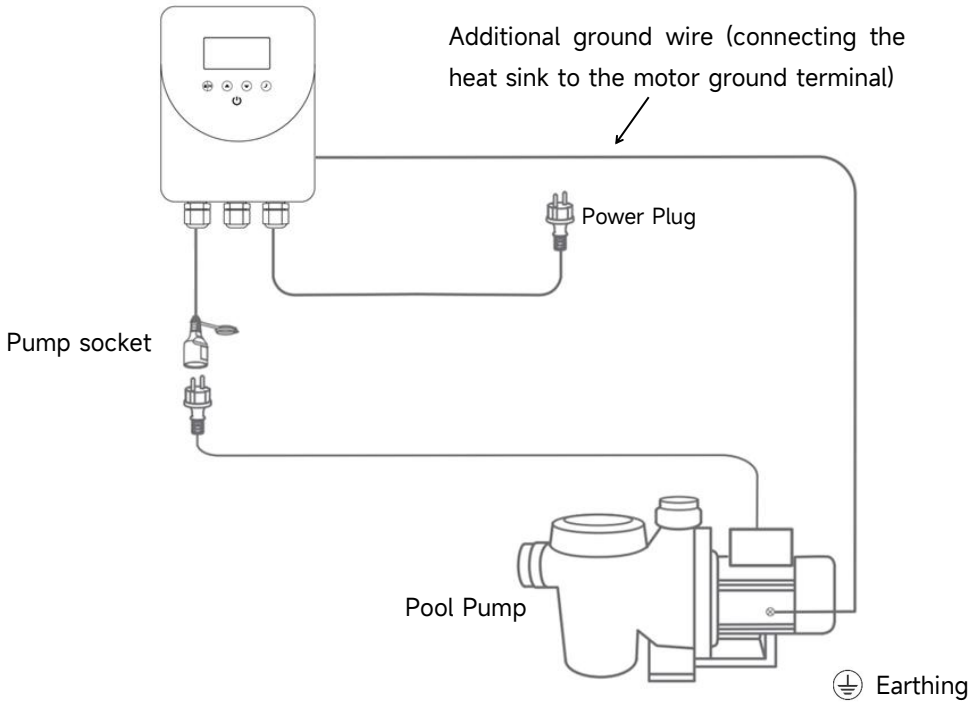


Fig.4 Wire connection diagram

Note: Above figure is for reference only, plug & socket may vary for different countries/regions.

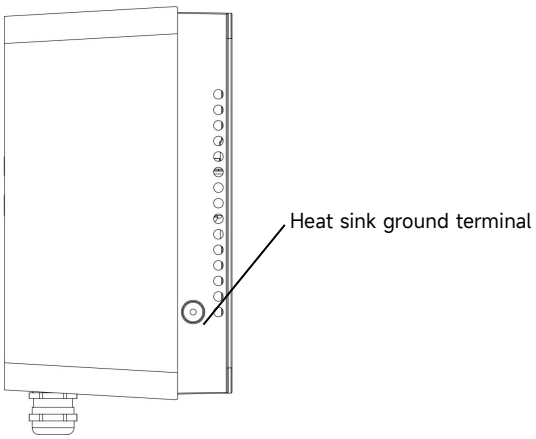
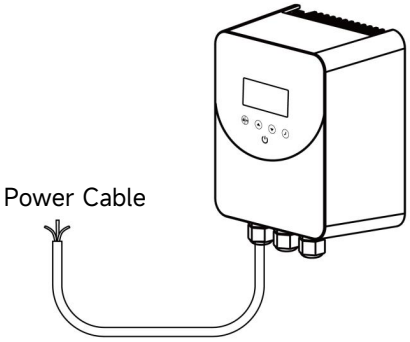


Fig.5 Heat sink ground terminal diagram

If you do not require a power plug for installation, wire the device as shown in Fig.6 and 7.



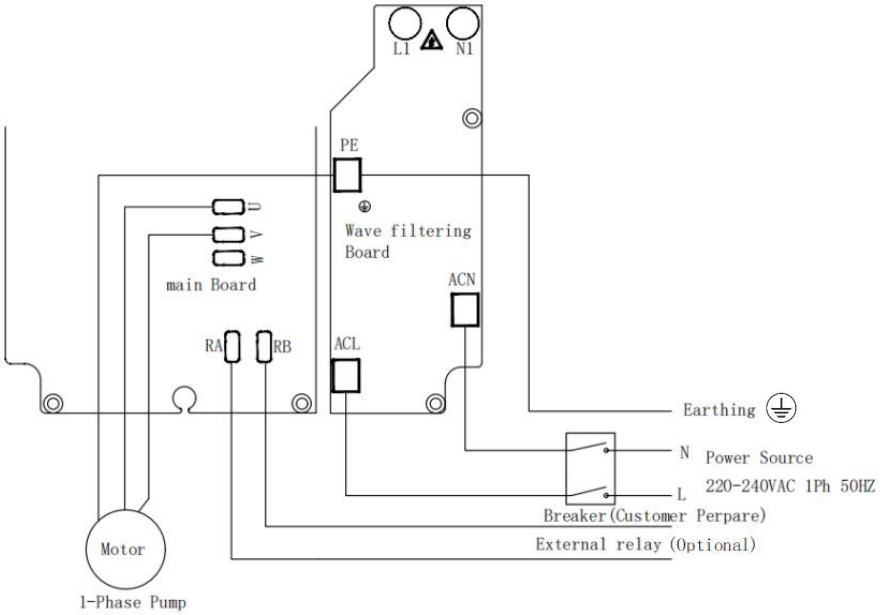


Fig.6 Single-phase pump connection diagram

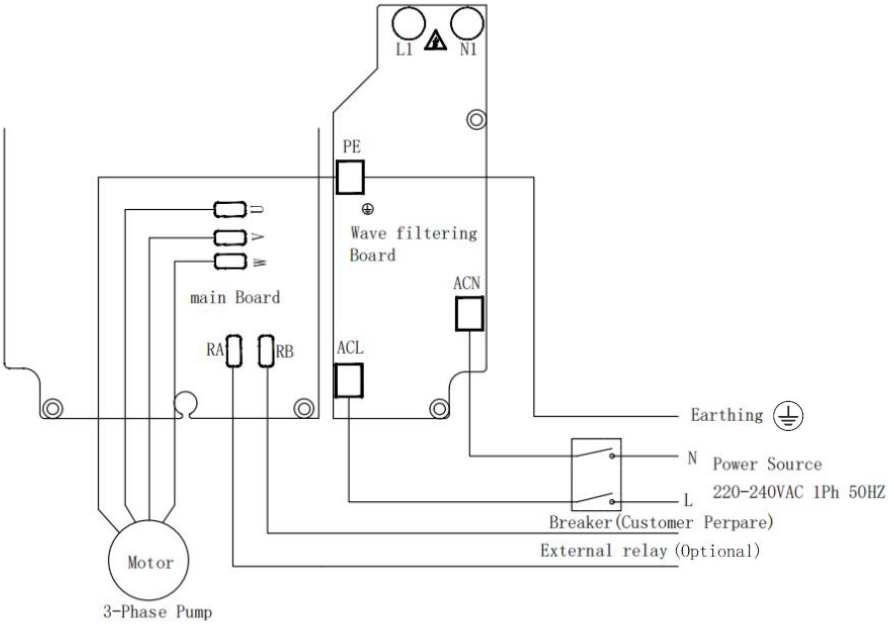


Fig.7 Three-phase pump connection diagram

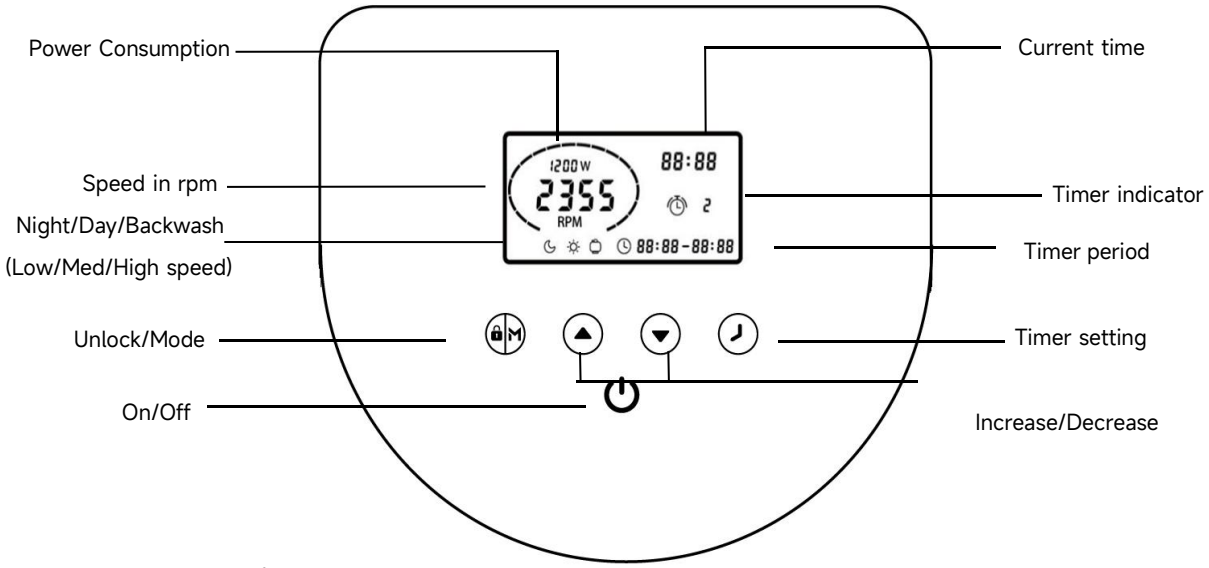
Do not touch the heat sink while the device is in operation or until at least 30 mins after it has been switched off. Keep it out of reach of children.

Because of high voltage conversion components contained in the device, do not try to disassemble or replace any components in case of malfunction or breakdown. Before serving on the unit, wait till the power light turned off or at least 3 minutes after power plug has been plugged off from input supply.

For iSAVER^{X} 1100C, please connect the pump motor with delta connection.

5. SETTINGS & OPERATION

5.1. Control panel



5.2. Mode selection

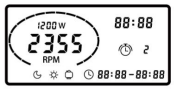
The frequency inverter has 3 modes (speed ranges). You can either run your pump at a constant speed choosing from  or set up to 4 timers for daily operation, each with an individual speed.

Mode	Speed range	Default speed
Night (Low)	1200~1650 rpm	1400 rpm
Day (Medium)	1700~2400 rpm	2000 rpm
Backwash (High)	2450~2900 rpm	2900 rpm

1) When plugged in,  lights up, hold  for 3 seconds to unlock the screen. Press  to start.

2) Upon starting, pump will run at maximum speed of 2900 rpm for one-minute self-priming. (This can be increased to 10 minutes – see Parameter settings Section 5.4)

3) Press  to choose a running speed mode, or use  and  to adjust by 50rpm each step to a specific running speed if required.

Once the pump has finished priming, the inverter will automatically switch the pump to the pre-set speed,  indicates the pump is running and displays the current rpm and power consumption.

5.3. Timer setting

To run the pump at a different times or speeds at a schedule, users can set up totally 4 timers.

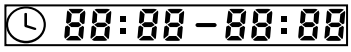
1) **Step 1**: Press to enter timer setting.

2) **Step 2**: Press or to set current time. Press to confirm it and move to timer-1 setting.

3) **Step 3**: Press to choose a speed range for timer-1, press or to adjust a specific speed if required. Press both for 3 seconds to return to the previous setting if needed.

4) **Step 4**: Repeat above steps to set the other 3 timers.

5) **Step 5**: Hold for 3 seconds to save settings and activate timer setting.

The icon  flashing indicates the device is waiting for the start time of the timer.

6) **Step 6**: Users can press or to check all 4 timers setting to ensure there are no invalid setting.

*** Any overlapping of timer periods will be considered as invalid and the device will only run based on the previous valid timer setting.**

*** During timer setting, users can cancel it by holding for 3 seconds.**

Note:

* The device has power-off memory, operation state will be resumed once the power restored.

*Switch off the device, then hold both for 3 seconds to restore factory setting if needed.

5.4. Parameter setting

Switch off the device, then hold both ▲ ▼ for 3 seconds to enter parameter settings.

Parameter	Description	Default setting	Setting range
1	Priming time	1 minutes	0~10min, by 1-minute increments
2	Minimum RPM	1200rpm	1200~2000rpm, by 100rpm increments
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	Self-priming speed	2900 rpm	1200~2900rpm, by 100rpm increments

6. PROTECTION & ERROR CODES

Item	Code	Description
1	E001	Abnormal input voltage
2	E002	Output over current
3	E101	Heat sink over heat
4	E102	Heat sink sensor error
5	E103	Master driver board error
6	E201	Circuit board error
7	E202	Master board EEPROM reading failure
8	E203	RTC time reading error
9	E204	Keyboard EEPROM reading failure
10	E205	Communication error
11	AL01	High-Temperature Warning and Speed Reduction

Note:

1. AL01 is a warning code: when it appears, the inverter will automatically switch to a lower speed to self-protect against high internal temperature. When the temperature drops back to 68°C the inverter will resume at the preset speed.
2. When causes for E002/E101/E103 lifts, the device will resume working automatically, if this code occurs for three times continuously, the device will shut down and need to be checked and restarted manually.

7. EXCLUSIONS

Under no circumstances should the manufacturer be held liable for any consequences resulting from inappropriate, incorrect installation, or mismatching of the product to pool pumps that are not compatible. The manufacturer reserves the right to change the specification of the product or its performance or the contents of the User Guide without notice in case of technical upgrade.

8. DISPOSAL

When disposing the product, please hand it over to a designated collection point for the recycling of waste electrical and electronic equipment.
The separate collection and recycling of waste equipment at the time of disposal will help ensure that it is recycled in a manner that protects human health and the environment. Contact your local authority for information on where you can drop off your water for recycling.

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