WAYSOS



COMPACT-AIRE 1.4K

THROUGH-WALL HEAT PUMP

MODEL: COMPACT-AIRE **1.4K**

KEY FEATURES

High-Efficiency Through-Wall Heat Pump with No Outdoor Unit Required

The Waysos Compact-Aire 1.4K delivers a reliable, energy-efficient, and architecturally discreet HVAC solution for multi-residential, hospitality, and retrofit applications. With a simple compact design, this heat pump offers year-round comfort without the need for exterior equipment or refrigerant line sets.

4-in-1 Functionality

Cooling, Heating, Dehumidification, and Fan-Only operation for versatile, year-round indoor climate control.

Front Digital Display

Clearly visible on the unit's face for easy temperature and setting checks

Compact, Self-Contained Design

No outdoor unit or mechanical room equipment required. All refrigeration components are factory sealed and contained within the indoor chassis.

Heat Pump with Electric Back-Up Replacement Heater

1400W back-up electric resistance heater when turned on, replaces the compressor and produces electric heat only. Compressor and outdoor fans turn off, while indoor fan with electric PTC heater turns on.

Eco-Friendly R32 Refrigerant

Utilizes next-generation R32 refrigerant with Low Global Warming Potential (GWP = 675)

Quiet Operations with Inverter-Driven Variable Speed Technology

High-efficiency DC inverter compressor and fan motor for quiet and energy-saving operations.

100% Powder-Coated Metal Design with Fixed Mesh Grille

Durable all-metal casing with a fixed mesh grille design, ensuring consistent airflow distribution to help maintain a balanced, even room temperature without the drafts or hot/cold spots.

Integrated Condensate Management System

Energy-saving, self-evaporative condensate removal in cooling mode.

Integrated Control Options

- On-board LED display with temperature control
- Handheld remote control
- Wi-Fi connectivity via Smart Life app (iOS/Android)
- Optional - third-party 24V wall thermostats available

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(C/W Independent 1.4kW Electric Back-up Heater)

SPECIFICATIONS

Cooling Capacity		
Rated Cooling Capacity (95°F)	Btu/h	11,800
	Watts	3,458
Cooling Capacity Range	Btu/h	6,600 - 11,800
Outdoor Cooling Operating Range	°F/°C	64F/18C ~ 109F/43C
Energy Efficiency Ratio (EER2)	Btu/(W.h)	10.1
Seasonal Energy Efficiency Ratio (SEER2)	Btu/(W.h)	15.55
Heating Capacity		
Rated Heating Capacity (47°F)	Btu/h	10,900
	Watts	3,194
Heating Capacity Range	Btu/h	6,200 - 10,970
*Electric Heating Capacity	Btu/h	4,776
	Watts	1,400
Coefficient Of Performance (COP)	Btu/(W.h)	3.1
Heating Seasonal Performance Factor (HSPF2)	Btu/(W.h)	8.2
Heating Performance / Energy Efficiency		
Nominal Heating Capacity @47°F / 8°C Heat Pump Only	Btu/h	10,900
	COP	3.4
Nominal Heating Capacity @17°F / -8°C Heat Pump Only	Btu/h	7,180
	COP	2.3
Nominal Heating Capacity @5°F / -15°C Heat Pump Only	Btu/h	4,370
	COP	1.64
Sound Pressure Levels		
Indoor Range	dBA	42 - 48
Dehumidifier		
Moisture Removal	Kg/Hr	1.5
	Pints/Hr	2.6

Electrical		
Power Supply	V-Ph-Hz	208/230-1-60
Rated Input for Cooling (95°F)	Watts	1209
Rated Input for Heating (47°F)	Watts	947
Rated Input for Electric Heating	Watts	1400
Rated Current for Cooling	A	6.1
Rated Current for Heating	A	4.8
Rated Current for Electric Heating	A	6.0
Minimum Circuit Ampacity (MCA)	A	11
Maximum Overcurrent Protection (MOP)	A	15
Fan		
Type	- -	DC Variable
Speed	- -	3
Indoor Fan Range	CFM	215 - 330
Compressor		
Type	- -	DC Inverter
Speed Range	Hz	30 - 62
Refrigerant		
Type	- -	R32
Factory Charge	Oz	22.9
	Kg	0.65
Dimensions		
Body Size (W/H/D)	Inches	39.4/22.8/8.6
	mm	1000/579/218
Intake/Exhaust Core	Inches	8
Weight		
Body Weight	Kg	53
	lbs	117
Safety Standard		
ETL		

*When electric heat is switched on manually, this will switch off the heat pump compressor to run as electric heat only.

The manufacturer reserves the right to modify product specifications at any time without prior notice. Users are advised to consult the latest technical documentation to ensure accurate and up-to-date information.

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CONTROLS & OPERATIONS

Modes of Operation

- **Cooling Mode**
  - Selectable via remote or onboard control
  - Adjustable setpoint temperature from 64°F to 86°F
  - Fan speeds: Low / Medium / High / Auto
- **Heating Mode**
  - Operated via remote or onboard control
  - Electric heater can be activated to replace compressor heating
  - Setpoint range: 64°F to 86°F
  - Fan speeds: Low / Medium / High / Auto
- **Dehumidification (Dry) Mode**
  - Fixed low fan speed for effective moisture removal
  - Cannot change fan speed during operation
- **Fan Mode**
  - Circulates air without heating or cooling
  - Fan speeds: Low / Medium / High / Auto
- **Auto Mode**
  - Automatically selects heating, cooling, or fan mode
  - Based on the room temperature range:
    i. <68°F: Heating
    ii. 68–77°F: Fan
    iii. >77°F: Cooling

Additional Functions

- **Timer Functions**
  - On and Off timer programmable in 10-minute and 1-hour increments
  - Timers can be set independently for automated start/stop
- **Onboard Controls**
  - Includes Mode, Fan Speed, Heater, and Temperature Adjustments
  - LED lights indicate selected fan speed and operation
- **Display & Indicators**
  - Front display shows ambient and set temperature alternately
  - Sleep mode dims or shuts off the display
  - Wi-Fi, compressor, and mode indicators present
- **Sleep Mode**
  - Gradually adjusts temperature for optimal night-time comfort
  - Reduces fan speed for quieter operation

"PTC" Electric Heating Function

The Compact-Aire 1.4K includes a 1,400W auxiliary electric heater (PTC heater) that operates independently from the heat pump system. The heat pump and electric heater do not operate simultaneously. By default, the unit operates in standard Heat Pump Heating Mode when a call for heating is received. The electric heater must be activated separately using the unit controls or a compatible 24V wall thermostat.

Electric Heat Only Mode:
The electric heater can be manually activated by pressing and holding the Electric Heater button on the unit touchscreen, or by using a compatible 24V wall thermostat connected to the AUX terminal.

When Electric Heat Only Mode is enabled:
The unit will remain in Electric Heat Only Mode until the electric heater is manually switched off, another operating mode is selected, or the heating demand is satisfied through thermostat control.

PTC Heater Protection Logic
The PTC heater incorporates built-in safety and protection functions. The electric heater will be disabled if any of the following conditions are detected:

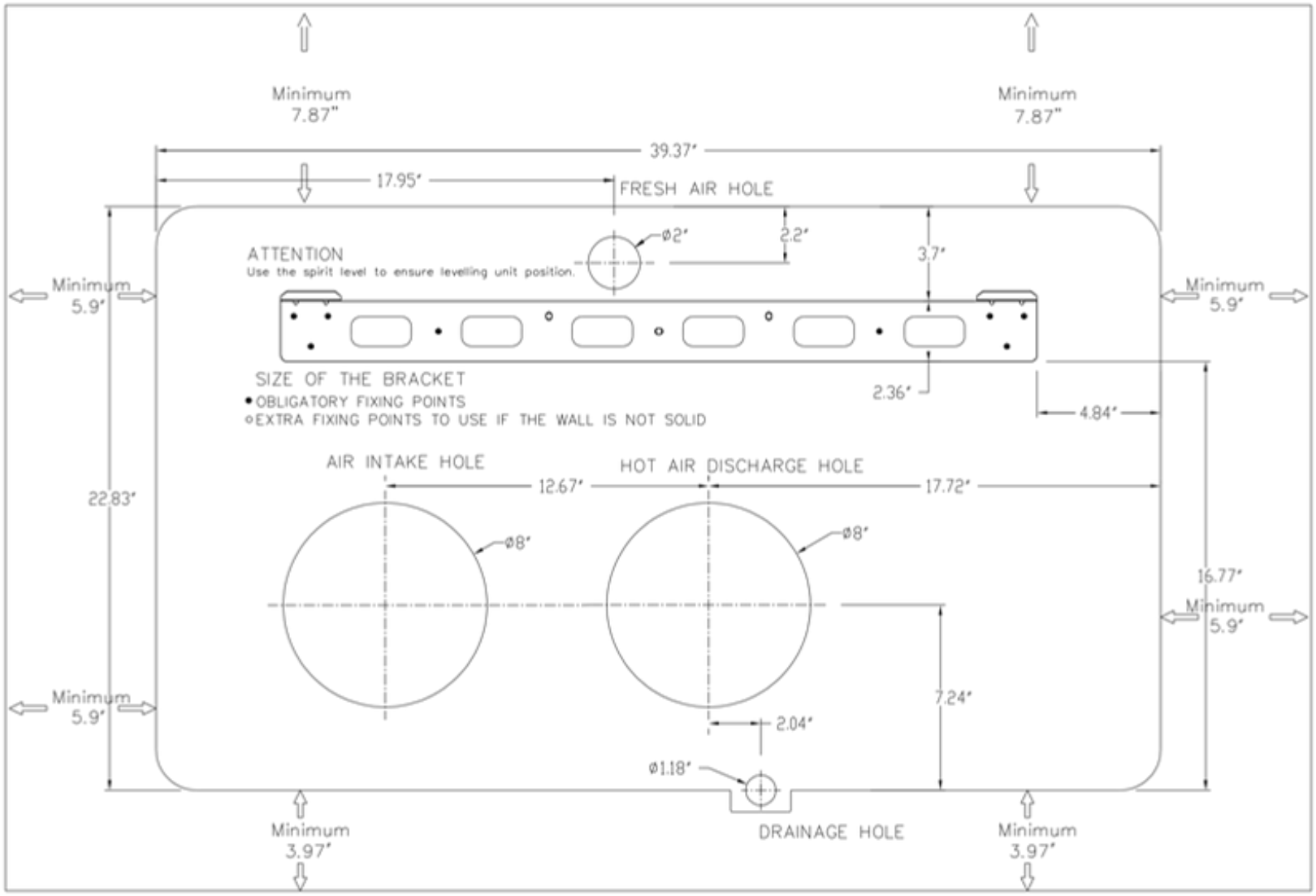
Unit is not operating in Heating Mode.
Unit enters Defrost Mode.
Indoor fan stops operating or a fan fault is detected.
4-way reversing valve fault or disconnection occurs.
Indoor coil temperature reaches or exceeds 54°C (129°F).
Temperature sensor fault is detected.

The electric heater will automatically resume operation once the fault condition has been cleared and a valid call for electric heat is present.

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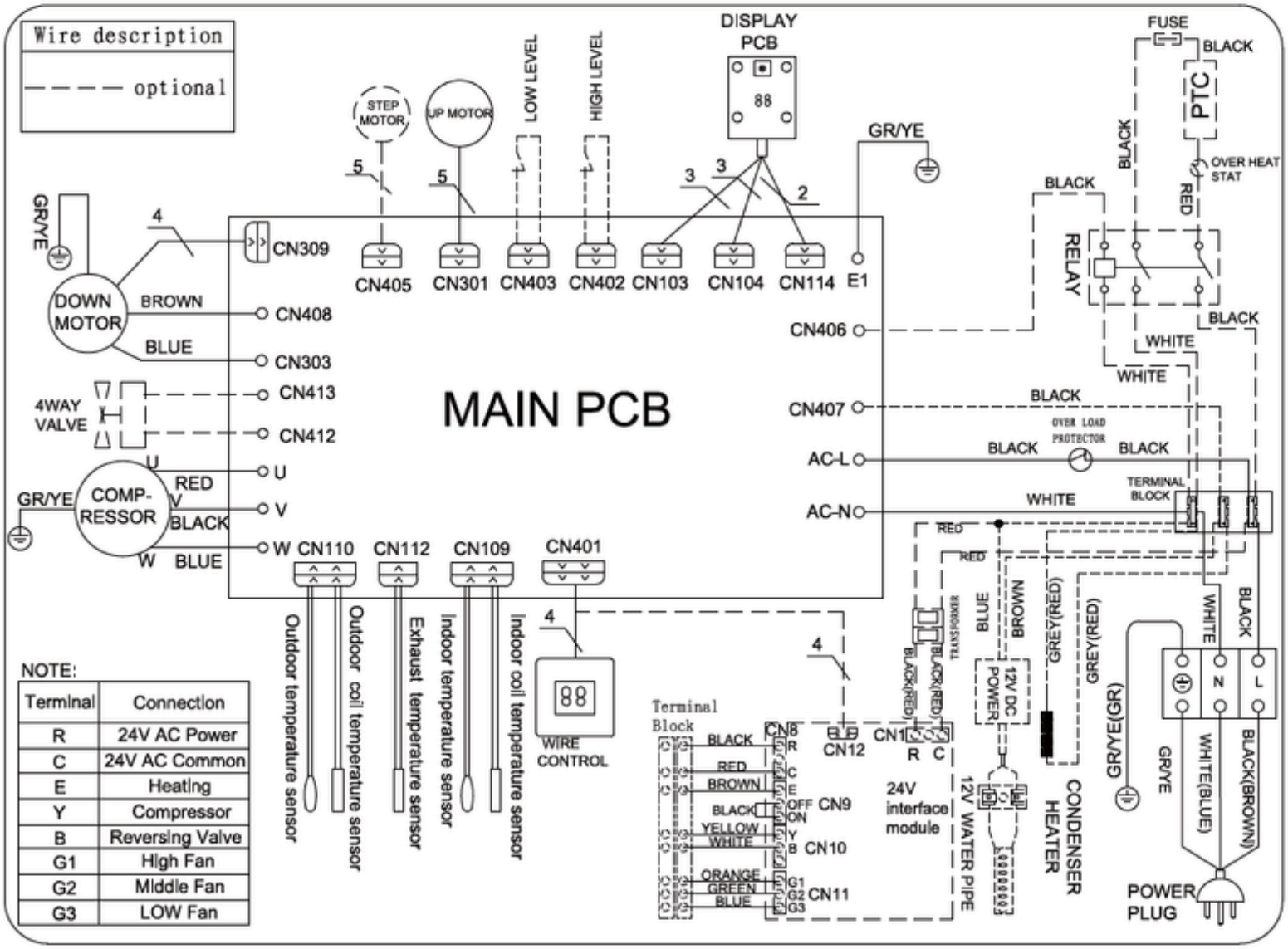
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WALL MOUNTING TEMPLATE



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WIRING DIAGRAM





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