WAYSOS

COMPACT-AIRE 3K

THROUGH-WALL HEAT PUMP

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MODEL: COMPACT-AIRE **3K**

KEY FEATURES

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

The Waysos Compact-Aire 3K 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 Auxiliary Electric Back-Up Heat

3kW electric resistance heater supports the heat pump in the coldest conditions

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 Additional 3kW Electric Back-up Heater)

SPECIFICATIONS

Cooling Capacity		
Rated Cooling Capacity (95°F)	Btu/h	12,030
	Watts	3,525
Cooling Capacity Range	Btu/h	6,600 - 12,030
Outdoor Cooling Operating Range	°F/°C	32F/0C ~ 115F/45C
Energy Efficiency Ratio (EER2)	Btu/h	10.5
Seasonal Energy Efficiency Ratio (SEER2)	Btu/(W.h)	15.55
Heating Capacity		
Rated Heating Capacity (47°F)	Btu/h	11.970
	Watts	3.508
Heating Capacity Range	Btu/h	6,200 - 11,970
Electric Heating Capacity	Btu/h	10,236
	Watts	3,000
Outdoor Heating Operating Range	°F/°C	5F/-15C ~ 75F/24C
Coefficient Of Performance (COP)	Btu/(W.h)	3.5
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	11,970
	COP	3.5
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	4,550
	COP	1.64
Sound Pressure Levels		
Indoor Range	dBA	39 - 43
Dehumidifier		
Moisture Removal	Kg/Hr	1.5
	Pints/Hr	2.6

Electrical		
Power Supply	V-Ph-Hz	208/240-1-60
Rated Input for Cooling (95°F)	Watts	1209
Rated Input for Heating (47°F)	Watts	947
Rated Input for Electric Heating	Watts	3000
Rated Current for Cooling	A	6.1
Rated Current for Heating	A	4.8
Rated Current for Electric Heating	A	13.6
Total Input Current	A	18.4
Minimum Circuit Ampacity (MCA)	A	23
Maximum Overcurrent Protection (MOP)	A	30
Recommended Breaker Size	A	25
Fan		
Type	- -	DC Variable
Speed	- -	3
Indoor Fan Range	CFM	215 - 330
Max. Pressure	MPa	4.2
Min, Pressure	MPa	1.62
Max. Allowable Pressure	MPa	870
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
Weight		
Body Weight	Kg	53
	lbs	117
Safety Standard		
ETL / UL / CSA		

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.

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 assist can be activated for faster warm-up
  - 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 3K includes an auxiliary electric heater (PTC heater) that activates under specific conditions to provide additional warmth during cold conditions. The system starts with the PTC turned off by default and needs to be manually turned on via the remote or app. The system will reset to default mode whenever the unit is turned off or changed to other modes (Cooling/Dehumidifier/Fan).

PTC will work after the system carries out self-testing and the following points are satisfied at the same time:

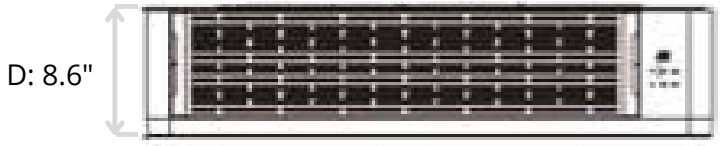
- Unit is in heating mode
- Compressor has been working for 3 minutes
- Below data is collected from 20 seconds of continuous monitoring of operation
- Tw<25 ℃/77 ℉ (outdoor temperature keeps lower than 25℃/77℉ for 10 seconds)
- Ts-Tr≥5℃/41℉ (The Set temperature is more than 5 degrees higher than the Room temperature)
- Room temperature Tr≤18℃/64℉
- Coil Temperature of evaporator Te ≤48℃/118℉

PTC will stop working when the system self-testing detects one of the following points:

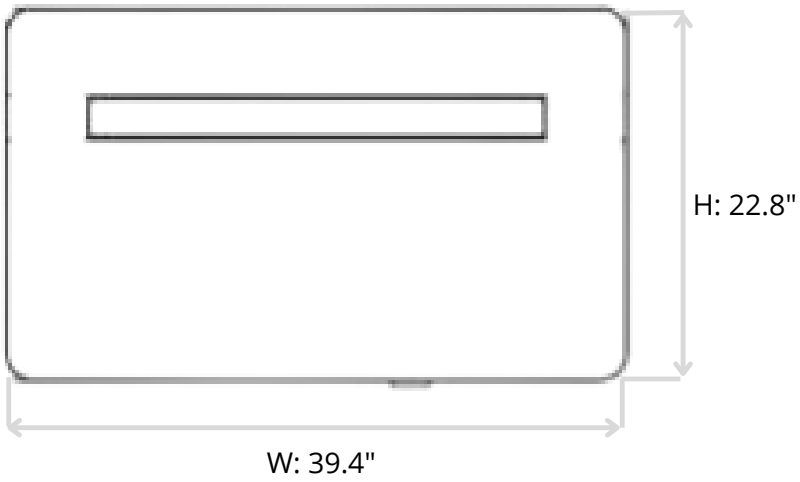
- Unit didn't work in heating mode
- Unit is in defrost function
- Compressor stops working
- Outdoor temperature stays higher than 28℃/82℉ for 10 seconds
- The room temperature is greater than the setpoint
- Room temperature Tr ≥25℃/77℉
- The ventilation stops or the fan is faulty
- 4-way valve gets disconnected
- Coil Temperature of evaporator Te≥54℃/129℉ or sensor error

DIMENSIONS

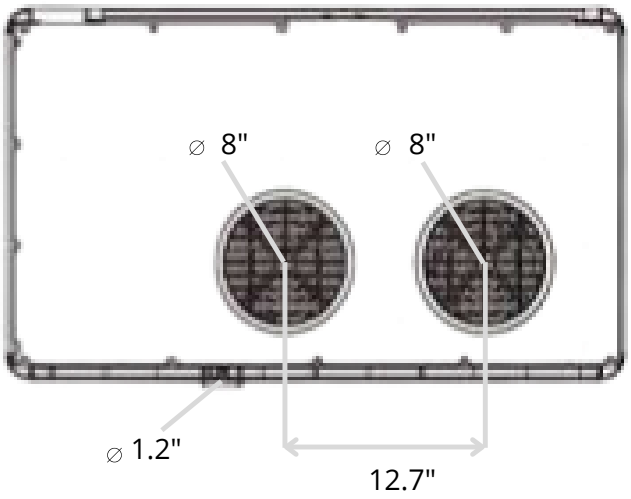
ELEVATION



FRONT



REAR



W	H	D
39.4"	22.8"	8.6"
1000mm	579mm	218mm

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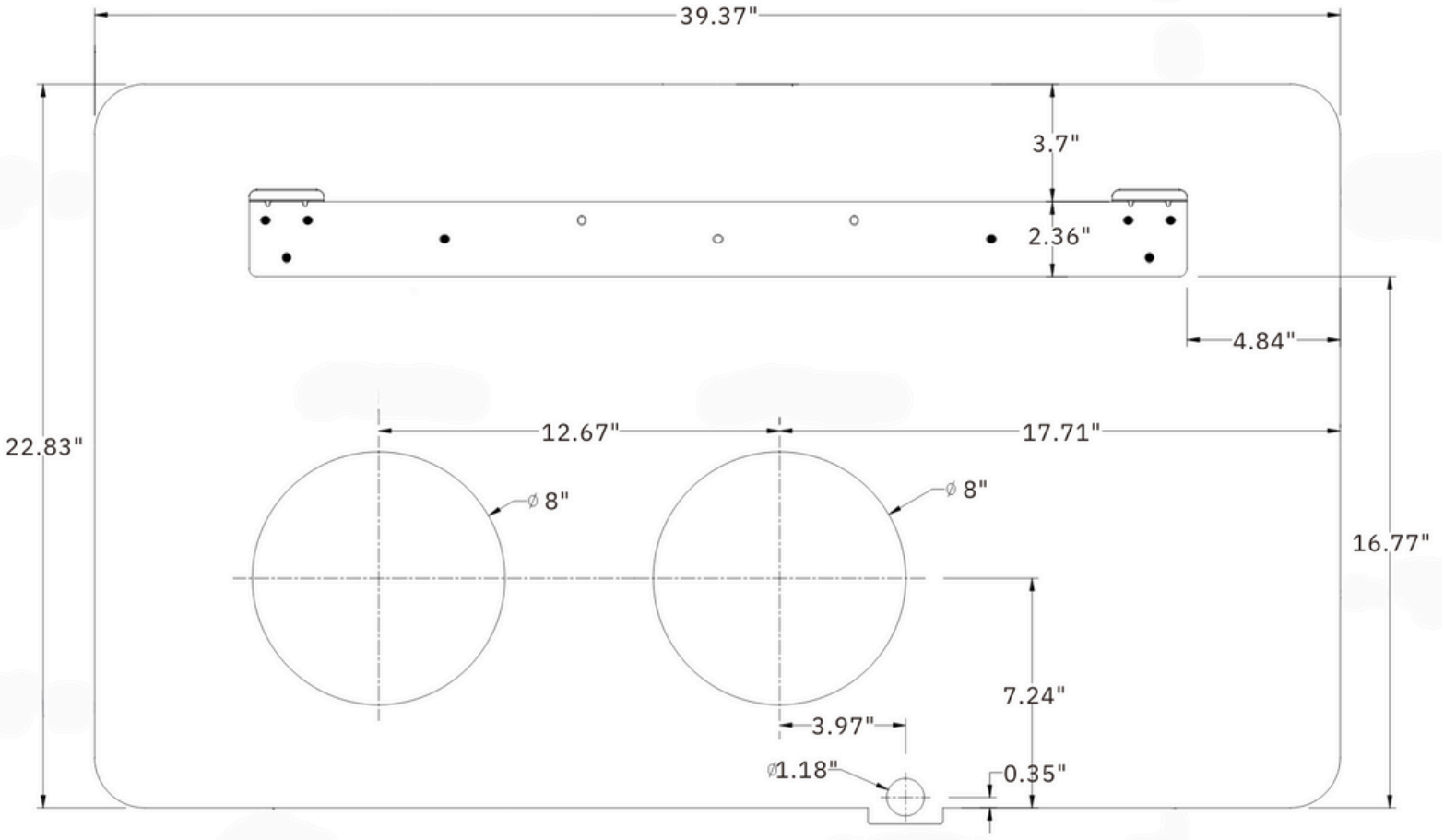
WALL MOUNTING TEMPLATE



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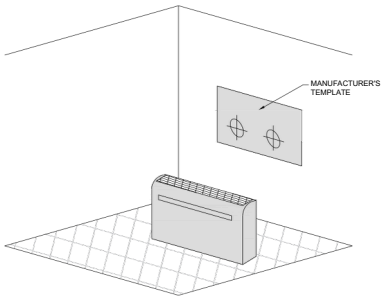
INSTALLATION SUMMARY

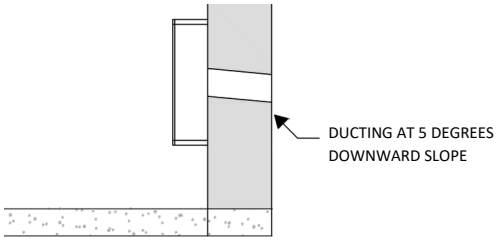
1. Wall Positioning & Template Preparation

- Install the unit on a structurally sound, flat, exterior wall
- Ensure adequate space around the unit to allow for proper airflow
- Use the manufacturer-supplied template and a spirit level to mark bracket and duct positions
- Avoid locations with external obstructions



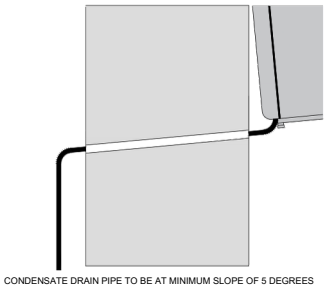
2. Core Hole Drilling & Duct Installation

- Drill two wall cores with a consistent 3-5 degree downward slope to the outside
- Insert supplied duct sleeves or plastic vent tubes with seam side up
- Trim duct sleeves flush to the wall interior



3. Condensate Drainage

- Route the drain line from the base of the unit through its dedicated hole
- Maintain consistent 3-5 degree downward slope to prevent water backup
- Drainage options include: sanitary tie-in, floor drain, riser to outside, or direct to exterior wall

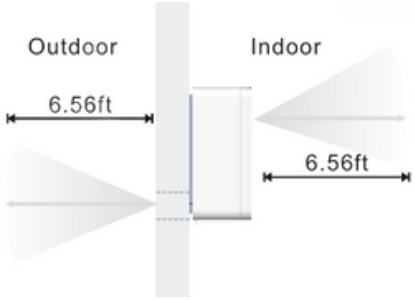


4. Wall Caps & Vents

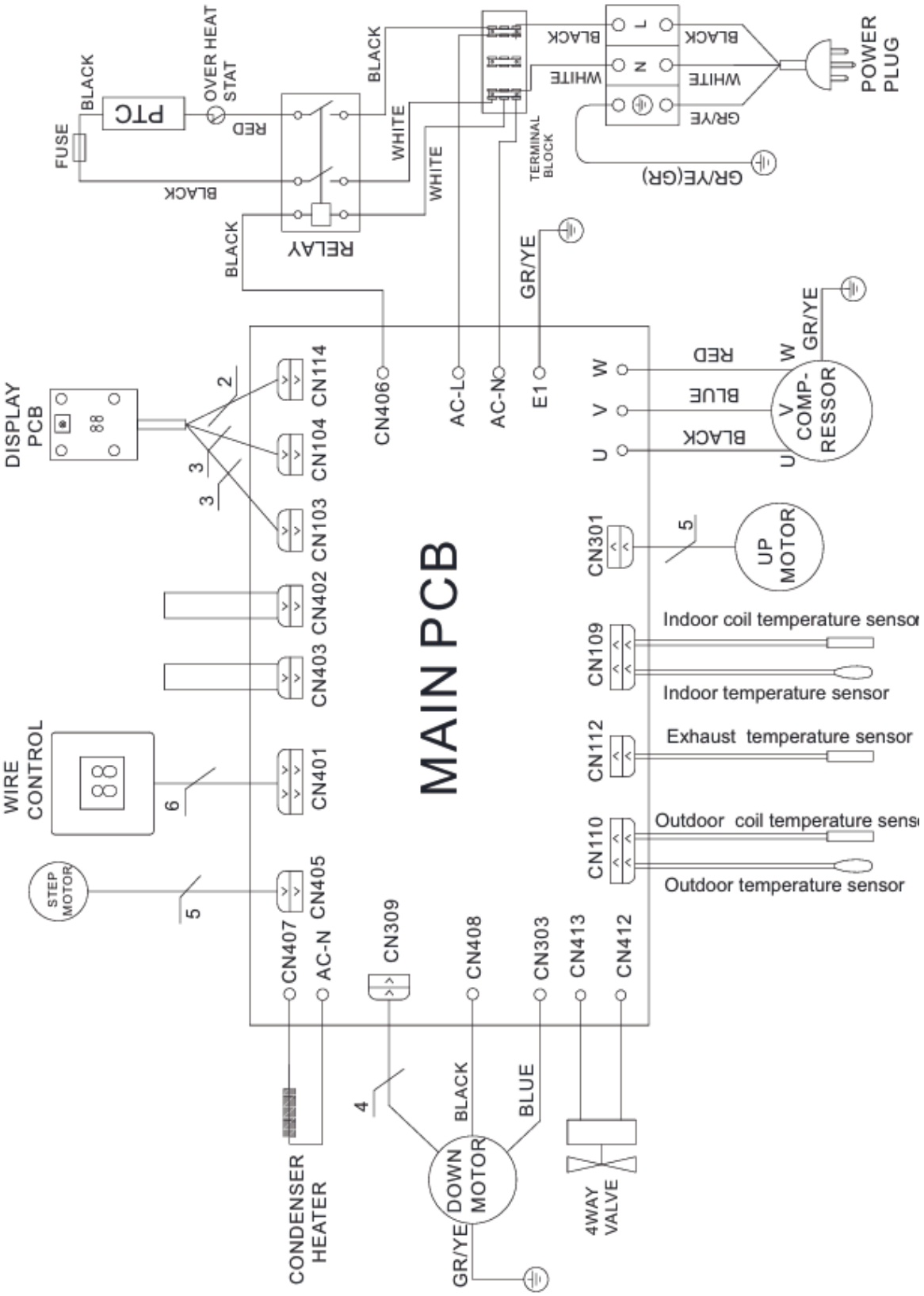
- Install provided vent covers from the interior using the folding method and chain system if external access is limited
- Alternatively install optional wall caps from the outside if access is possible
- Ensure a flush, vibration-free fit against the wall

5. Final Unit Installation & Power Connection

- Hang the unit on the pre-installed wall bracket
- Align the duct connections and route the drain line
- Plug-in or hardwire based on model type
- Ensure compliance with national wiring standards



WIRING DIAGRAM



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LIMITED WARRANTY SUMMARY

WARRANTY COVERAGE

Component	Warranty Term	
Comprehensive Coverage	1 Year	(All Parts & Labour)
Compressor	3 Years	(Parts Only)
Optional Extended Warranty on Compressor	5 Years*	(Parts Only) *Available at additional costs

COVERAGE DETAILS

- Comprehensive 1-Year Warranty covers all factory installed components, parts, and labour associated with repair or replacement of defective components
- 3-Year Compressor Warranty covers replacement of the original compressor only, exclusive of labour charges after the first year
- Optional 5-Year Extended Compressor Warranty covers compressor parts only, beginning on the date of original installation

WARRANTY CONDITIONS

- Unit must be installed and commissioned in accordance with Waysos installation instructions and local codes
- Warranty applies to equipment installed in Canada or the United States
- Service, maintenance, and repairs must be performed by licensed HVAC professionals
- Warranty coverage begins on the date of original installation
- Use of non-Waysos parts or unauthorized modifications voids warranty
- Routine maintenance is the responsibility of the owner/operator

EXCLUSIONS

- Cosmetic damage, corrosion, or surface finish deterioration
- Damage caused by improper installation, misuse, power issues, or acts of nature
- Accessories and consumables such as filters, remote batteries, grilles, or Wi-Fi setup
- Consequential or incidental damages

WARRANTY CLAIM

- Unit model and serial number
- Date of original installation
- Description of fault or issue
- Proof of commissioning if applicable

Claims should be submitted through the original supplier, distributor, or directly to support@waysos.com

WAYSOS

www.waysos.com