

# **Technical Product Guide**

# **MULTI WALL MOUNT UNITS**

Models:

NEO09HP230V1AH NEO12HP230V1AH NEO18HP230V1AH





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#### SUPERIOR DESIGNS PROVIDE EASY SOLUTIONS TO COMPLEX PROBLEMS

GREE Ductless Multi Zone systems provide quiet comfort and energy efficient heating and cooling in up to five different rooms – without ductwork. For most residential and light commercial applications, this is the ideal solution to balance comfort, efficiency and ease of installation. This Inverter-driven system offers Seasonal Energy Efficiency Ratings (SEER) up to 16. With individual room control and variable speed compressor operation, comfort is boosted throughout your home or office, while utility bills are held in check.



Gree's exclusive G-10 Inverter technology powers the twin rotary compressor inside the Multi Zone outdoor compressor section. The G-10 Inverter constantly adjusts the compressor speed to maintain a comfortable room temperature. This saves energy, reduces outdoor noise and maintains a steady room temperature by eliminating the harsh starts and stops of conventional systems.

When laying out a new project, you'll appreciate the flexibility of Gree's Multi Zone Systems. A single outdoor unit can simultaneously power up to five indoor units while eliminating expensive ductwork. Without those ducts, your installation is simpler, faster and more cost-effective. And the flexibility doesn't stop there, as you can also mix and match your choice of Wall Mount, Ceiling Cassette, Concealed Duct, Universal Floor/Ceiling and Mini Floor Console indoor units to create a unique heating and cooling system to perfectly fit any project.

#### No pipe sweating

No sweating is needed for the pipe connection between the indoor and outdoor units. All piping connections are flared to simplify and ease the piping installation.

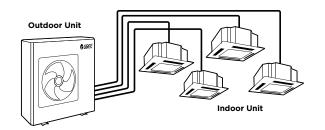
#### **Simple Wiring**

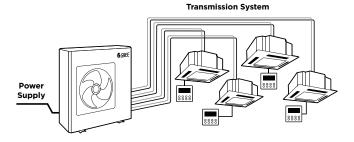
No special or hard-to-find communication wire is needed between the indoor and outdoor units. The system uses common 14-4 AWG stranded copper THHN 600V wire. The system's communication is ready as soon as the electrical wiring between the indoor and outdoor units is complete.

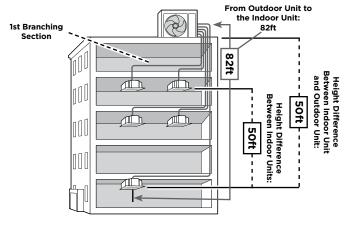
#### **High Lift Design**

Gree's High Lift design allows for extended piping length, up to 262 feet total, as well as 50 feet of vertical lift from the condensing units. This allows for greater flexibility in the layout of the system.

Allows up to 262 feet of pipe length







#### **Energy Saving**

Multi Zone systems allow each room to be individually controlled. Only those rooms requiring air conditioning (or heating) are cooled (or heated), and all of it is accomplished without ductwork. In addition, Gree's G-10 inverter technology reduces energy waste, maximizes efficiency and achieves up to 16 SEER.

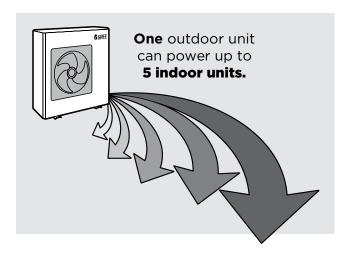
#### **Self-Diagnostics System**

Each indoor and outdoor unit continuously runs a series of multi-point diagnostic tests on the system, to automatically scan for unacceptable operating conditions or malfunctions. If such conditions occur, the system takes corrective action or stops. The fault code will be shown on the indoor, outdoor and wired controller displays. Problems and system status are displayed with comprehensive diagnostic codes to simplify system troubleshooting and shorten repair times.

Diagnostic Code	Malfunction
E1	Compressor High Pressure Protection
E2	Indoor Coil Anti-Freeze Protection
E3	Low Pressure Protection
E4	High Discharge Temperature Protection
E5	Compressor High Temperature Protection
E6	Indoor/Outdoor Communication Failure
E7	Heating & Cooling Modes Conflict
E9	Condensate Water Too High
F4	Outdoor Coil Sensor Failure

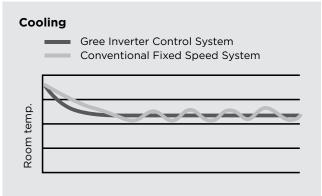
#### **Flexible Design**

Gree's Multi Zone systems have many advantages for both the property owner and the installer. Up to five indoor units, powered by a single outdoor unit, results in flexible zoning solutions for almost any application. Various styles of indoor units may be mixed and matched in any combination to create a unique, multiple zone heating and cooling system. Choose from Wall Mount, Ceiling Cassette, Slim Duct, Universal Floor/Ceiling and Mini Floor Console indoor units. All are lightweight and compact enough to be installed on the wall or in any ceiling space.



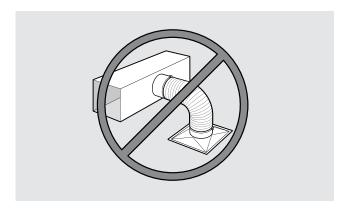
#### **Intelligent Control**

Gree's Multi Zone components use state-of-the art intelligent controls to generate the ultimate in room comfort. G-10 Inverter technology delivers the exact level of required capacity (from 10% to 100%) to maintain room temperature and humidity in the comfort range. The optimized PID controls maintain the room temperature within less than ±1.0°F of the room setpoint temperature. The result is a virtually constant room temperature without the typical fluctuations that occur with a conventional fixed speed ON/OFF system.



#### **Ductless Saves Money**

Realize energy savings by eliminating heat loss from inefficient and leaky ductwork. The average ducted air distribution system could reduce overall system efficiency by up to 30 percent. Eliminating ductwork allows you to downsize equipment while upsizing performance.



## **+Multi Wall Mount Units**



When it comes to fighting the heat, you need the NEO +Multi Wall Mount at your side. Don't be fooled by its compact design. Our +Multi Wall Mount is energy efficient, yet powerful for year round comfort. Gree's whisper quiet fan technology silences distracting noise. Its attractive compact design mounts in a small wall space near the ceiling, and fits seamlessly into any decor. The fully featured +Multi Wall Mount can be operated by an infrared remote controller or tether controller, allowing you to easily manage a variety of useful features to further enhance room comfort.

#### **FEATURES AND BENEFITS**

#### **Whisper Quiet**

Gree systems are both energy efficient and quiet. Wall mounted units operate with sound levels starting as low as 32 dB(A).

#### **Subtle Appearance**

Designed for a comfortable fit in virtually any living space. This slim compact cabinet sits inconspicuously on the wall, and blends into most interior designs.

#### **Multi-Speed Fan**

The indoor fan can run at up to four different speeds (Low, Medium, High or Turbo) for either COOLING or HEATING mode for maximum comfort and quiet operation.

#### **Time Guard**

Among the system's many safeties is a Time Guard function to prevent rapid cycling of the compressor. A protective five-minute time delay restricts compressor restarts after shutoff.

#### **Power Failure Mode**

Power interruptions are no problem. User selections and system parameters are stored in non-volatile memory. These parameters are retained during a power failure. When power is returned, the system will automatically return to the last operating mode.

#### **Controller**

The unit comes with a factory supplied wired Tether Controller or Wireless Remote Controller. Note: the controllers are mutually exclusive. They cannot be used at the same time.

#### **IR Wireless Remote Controller**

The Gree multi-functional infrared hand held wireless controller is sleek, ergonomically designed, easy to use and has a large backlit LCD display.

#### **Tether Controller (Optional)**

The Gree tether controller mounts to the wall up to 25 feet from the unit. It provides complete control over operation mode, desired temperature, fan speed, airflow direction and more.

#### **Mode Button**

The units can be set to five different operating modes: HEAT, COOL, DRY, FAN ONLY and AUTO. Note: AUTO MODE has fixed setpoints of 68° F heating and 78° F cooling, which are not changeable. The system will automatically select heating or cooling to maintain room temperature within this band.

#### FEATURES AND BENEFITS

#### **Intelligent Pre-Heating**

The Multi Zone system guards against the annoying COLD BLOW in heating mode, and constantly monitors the discharge air temperature. It will delay the indoor fan until the indoor coil has warmed up to prevent blowing uncomfortable cool air into the room.

#### **Timer Mode**

The unit can be programmed to turn ON or OFF after a specific amount time. The time period is adjustable between one half and 24 hours.

#### I Feel Mode

The unit will sense room temperature at the remote controller instead of at the indoor unit. It then adjusts airflow and temperature accordingly for the ultimate in personal comfort control and energy savings.

#### **Swing Louver**

The unit has adjustable swing louvers which can be controlled from the wired tether or wireless controllers. Vertical swing louver allows five different vertical (up & down) air discharge directions including Continuous Sweep. Maximize comfort by adjusting the direction of airflow in the room by moving the louvers up or down.

#### **Privacy Lock Mode**

Both wired tether and wireless controllers have a Privacy Lock to avert unauthorized access and stop tampering with system settings.

#### **Sleep Mode**

The unit will automatically adjust room temperature during sleep time. This slight change in temperature will not affect your comfort level due to the natural effects that sleeping has on the body, but it will save on energy consumption and will lower electric bills.

#### Fahrenheit °F / Celsius °C

The wired tether and wireless controllers can be set to display in either °F or °C.

#### **Polymeric Air Filters**

Two-piece removable polymeric air filters easily slide in and out from the front of the indoor unit and are interchangeable. The front panel does not need to be removed to access or change the filters. The filters are washable and permanent.

#### **Self-Diagnosis**

With an on-board computer using real-time diagnostics, the Gree Multi Zone system helps to prolong its own life. The automatic diagnosis feature continuously scans for unacceptable operating conditions or malfunctions. If such conditions occur, the system takes corrective action or stops. Fault codes are shown on the unit display to facilitate easy troubleshooting and repair.

#### **Agency Listings**

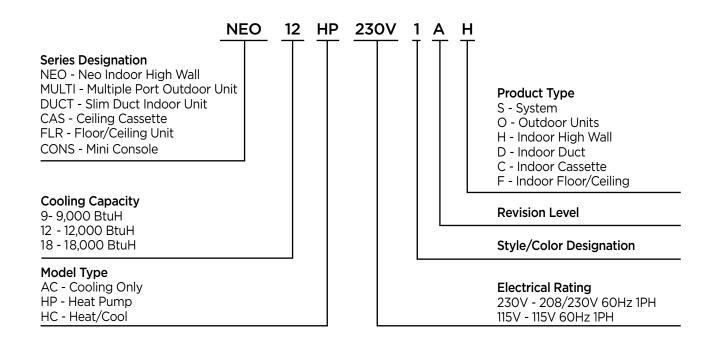
All systems are listed with AHRI (Air conditioning, Heating, and Refrigeration Institute) and are ETL Certified per UL Standards.

#### 7/5 Year Limited Warranty

Enjoy one of the most comprehensive warranties in the industry. Seven (7) years on compressor and Five (5) years on all parts.

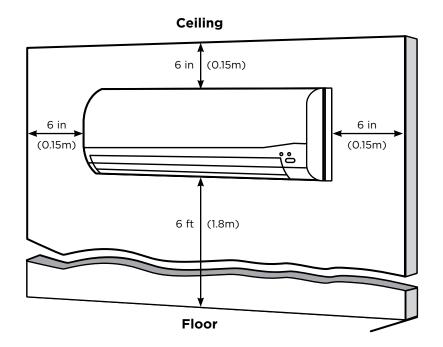
## **+Multi Wall Mount Units**

### **NOMENCLATURE**



### MINIMUM INDOOR CLEARANCE SPECIFICATIONS

The unit installation must meet or exceed the following minimum clearances for proper operation.



### PERFORMANCE SPECIFICATIONS & DATA

### **Indoor High Wall Units**

MODEL NUMBER	COOLING CAPACITY (BtuH)	HEATING CAPACITY (BtuH)	DEHUMIDIFICATION (Pts./hr.)
NEO09HP230V1AH	9,000	9,800	2.5
NEO12HP230V1AH	12,000	13,000	3.0
NEO18HP230V1AH	18,000	19,800	3.8

### **Indoor High Wall Units**

MODEL NUMBER	AIR FILTER TYPE	AIR FLOW	FAN TYPE
NEO09HP230V1AH	Polymeric Mesh	4-way	Crossflow
NEO12HP230V1AH	Polymeric Mesh	4-way	Crossflow
NEO18HP230V1AH	Polymeric Mesh	4-way	Crossflow

## **Indoor High Wall Units**

MODEL NUMBER		COOLING	(CFM)	
MODEL NUMBER	LOW FAN	MEDIUM FAN	HIGH FAN	TURBO FAN
NEO09HP230V1AH	218	253	277	306
NEO12HP230V1AH	217	253	277	335
NEO18HP230V1AH	324	383	459	500

## **Indoor High Wall Units**

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NEO12HP230V1AH	217	253	277	335
NEO18HP230V1AH	324	383	459	500

## **AIR THROW DATA**

## **Indoor High Wall Units**

MODEL NUMBER		APPROXIMATE	AIR THROW	
MODEL NUMBER	LOW	MEDIUM	HIGH	TURBO
NEO09HP230V1AH	18 ft.	21 ft.	24 ft.	28 ft.
NEO12HP230V1AH	18 ft.	21 ft.	24 ft.	30 ft.
NEO18HP230V1AH	22 ft.	27 ft.	33 ft.	39 ft.

# **+Multi Wall Mount Units**

### **SOUND DATA**

## **Indoor High Wall Units**

	LOW	FAN	MEDIL	JM FAN	HIGH	I FAN	TURB	O FAN
MODEL NUMBER	SOUND POWER	SOUND PRESSURE	SOUND POWER	SOUND PRESSURE	SOUND POWER	SOUND PRESSURE	SOUND POWER	SOUND PRESSURE
NEO09HP230V1AH	42 dBA	32 dBA	45 dBA	35 dBA	48 dBA	38 dBA	52 dBA	42 dBA
NEO12HP230V1AH	43 dBA	33 dBA	46 dBA	36 dBA	49 dBA	39 dBA	54 dBA	44 dBA
NEO18HP230V1AH	45 dBA	35 dBA	50 dBA	40 dBA	54 dBA	44 dBA	59 dBA	49 dBA

Note: 1. Sound pressure ratings are estimated sound pressure measurements, 3 feet from unit.

2. Sound power ratings are per AHRI 270 and AHRI 350

### **ELECTRICAL DATA**

### **Indoor High Wall Units**

	RATED POWER SUPPLY VOLTAGE RANGE		INDOOR FAN		
MODEL NUMBER	(volt-phase-hz)	(volts)	RLA (amps)	POWER (watts)	
NEO09HP230V1AH	208/230v-1ph-60hz	187-253	0.2	20.0	
NEO12HP230V1AH	208/230v-1ph-60hz	187-253	0.2	20.0	
NEO18HP230V1AH	208/230v-1ph-60hz	187-253	0.3	20.0	

**Legend:** RLA - Rated Load Amps

### **PRODUCT WEIGHT**

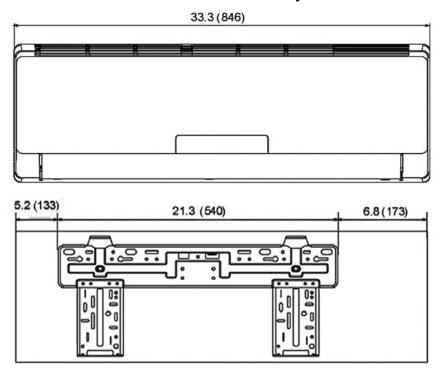
### **Indoor High Wall Units**

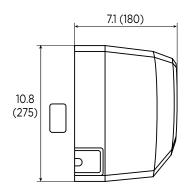
MODEL NUMBER	PRODUCT	WEIGHT
MODEL NUMBER	NET OPERATING	GROSS SHIPPING
NEO09HP230V1AH	22 lbs.	29 lbs.
NEO12HP230V1AH	22 lbs.	29 lbs.
NEO18HP230V1AH	24 lbs.	31 lbs.

### **DIMENSIONAL SPECIFICATIONS**

Model No: NEO09HP230V1AH
Model No: NEO12HP230V1AH

9,000 BtuH 12,000 BtuH





Suction/Gas Line Port Size
Port 1 3/8-in OD Flared

Liquid Line Port Size

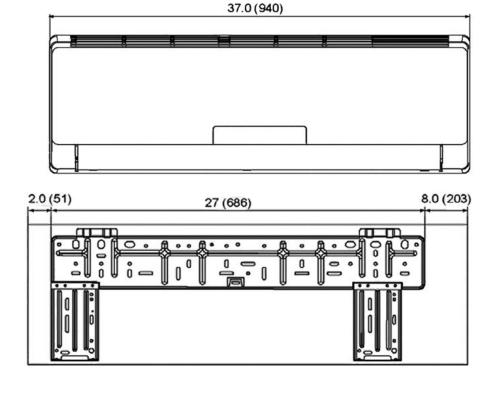
Port 1 1/4-in OD Flared

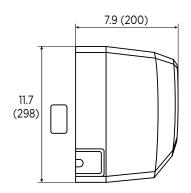
Drain Connector

Drain Line 0.625-in OD

### **Model No: NEO18HP230V1AH**

#### 18,000 BtuH





Suction/Gas Line Port Size
Port 1 1/2-in OD Flared

Liquid Line Port Size
Port 1 1/4-in OD Flared

Drain Connector

Drain Line 0.625-in OD

# **Limited Warranty Statement**



### **DUCTLESS HEAT PUMP MULTI-SPLIT SYSTEMS**

Effective on new GREE Ductless purchases on or after March 1, 2013

NEO09HP230V1AH NEO12HP230V1AH NEO18HP230V1AH

GREE distributor (hereinafter "Company") warrants this product against failure due to defect in materials or workmanship under normal use and maintenance as follows. All warranty periods begin on the date of original installation. If the date cannot be verified, the warranty period begins one hundred twenty (120) days from date of manufacture. If a part fails due to defect during the applicable warranty period Company will provide a new or remanufactured part, at Company's option, to replace the failed defective part at no charge for the part. This limited warranty is subject to all provisions, conditions, limitations and exclusions listed below.

- A warranty period of Seven (7) years on compressor to the original registered end user.
- A warranty period of Five (5) years on all parts to the original registered end user.
- A warranty period of One (1) year on the remote control provided with the original unit.
- Limited warranty applies only to systems that are properly installed by a state certified
  or licensed HVAC contractor, under applicable local and state law in accordance with all
  applicable building codes and permits; GREE installation and operation instructions and
  good trade practices.
- Warranty applies only to products remaining in their original installation location.
- Defective parts must be returned to the distributor through a registered servicing dealer for credit.

### LIMITATIONS OF WARRANTIES

All implied warranties and/or conditions (including implied warranties or conditions of merchantability and fitness for a particular use or purpose) are limited to the duration of this limited warranty, some states or provinces do not allow limitations on how long an implied warranty or condition lasts, so the above may not apply to you. The express warranties made in this warranty are exclusive and may not be altered, enlarged, or changed by any distributor, dealer, or other person, whatsoever.

#### THIS WARRANTY DOES NOT COVER:

- 1. Labor or other costs incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts, or replacement parts, or new units.
- 2. Product cleaning required prior to warranty service and repair.
- 3. Normal maintenance as outlined in the installation and servicing instructions or Owner's Manual, including filter cleaning and/or replacement and lubrication.
- 4. Failure, damage or repairs due to faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
- 5. Failure to start due to voltage conditions, blown fuses, open circuit breakers, or damages due to the inadequacy or interruption of electrical service.
- 6. Failure or damage due to floods, winds, fires, lightning, accidents, corrosive environments (rust, etc.) or other conditions beyond the control of the Company.
- 7. Failure or damage of coils or piping due to corrosion on installations within one (1) mile of sea coast or corrosive body.
- 8. Parts not supplied or designated by Company, or damages resulting from their use.
- 9. Products installed outside continental USA and Canada.
- 10. Electricity or fuel costs, or increases in electricity or fuel costs for any reason whatsoever, including additional or unusual use of supplemental electric heat.
- 11. Any cost to replace, refill or dispose of refrigerant, including the cost of refrigerant.
- 12. Shipping damage or damage as a result of transporting the unit.
- 13. Accessories such as condensate pumps, line sets and so forth are not covered.
- 14. Any special, indirect or consequential property or commercial damage of any nature whatsoever. Some states or provinces do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

#### FOR WARRANTY SERVICE OR REPAIR:

Contact your installing contractor. You may find the installer's name on the equipment or in your Owner's packet.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or province to province.

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