



**GE APPLIANCES**

# Product Specifications

**NS17A\*5**  
TWO STAGE SPLIT  
SYSTEM AIR CONDITIONER -  
R-454B



**READ CAREFULLY.  
KEEP THESE INSTRUCTIONS.**

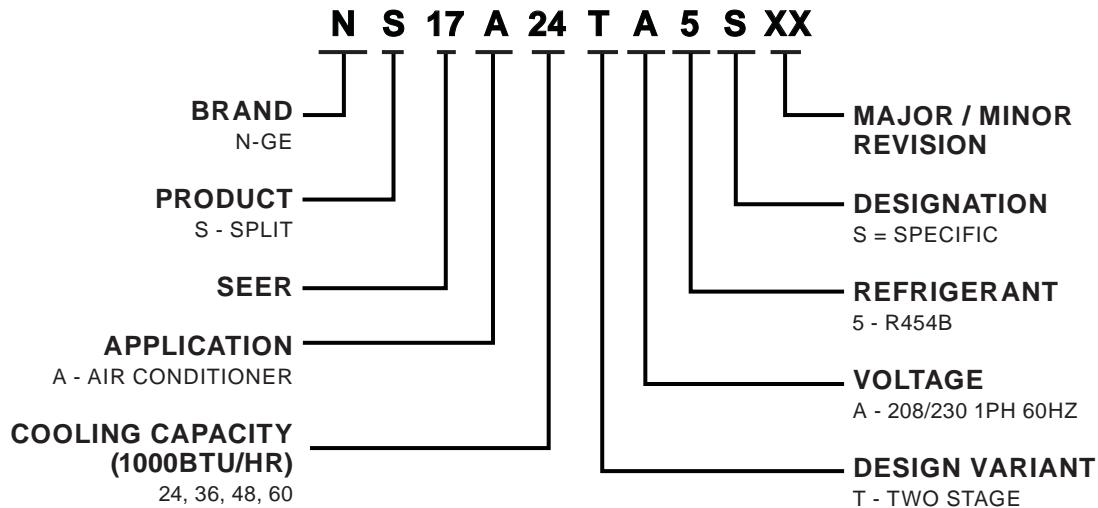
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# NS17A\*5

## PRODUCT SPECIFICATIONS

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### MODEL NUMBER GUIDE



### APPROVALS

- AHRI Standard 210-240-2023 certified
- AHRI Certified system match-ups and expanded ratings, visit [AHRIDirectory.org](http://AHRIDirectory.org)
- ENERGY STAR® Certified
- Sound rated to AHRI Standard 270-2008 test conditions
- ETL certified (U.S. and Canada)
- ISO 9001 Registered Manufacturing Quality System

### APPLICATIONS

- 2 to 5 ton nominal sizes
- Sound levels as low as 73 dBA
- Single phase power supply
- Applicable to indoor air handlers or gas furnaces with indoor add-on coils

### REFRIGERANT SYSTEM

#### **R-454B Refrigerant**

- Low GWP (Global Warming Potential)
- Zero ODP (Ozone Depletion Potential)
- Low Toxicity/Lower Flammability - A2L
- Unit is factory pre-charged

#### **Outdoor Coil Fan**

- Direct drive fan
- Vertical air discharge
- Sleeve bearings
- Inherently protected
- Totally enclosed fan motor
- ECM motor (060 model)

#### **Corrosion Resistant Coil**

- Enhanced aluminum alloy tube/enhanced fin coil
- Superior corrosion resistance
- Ripple-edged aluminum fins
- Aluminum tube construction

## **REFRIGERANT SYSTEM (CONT)**

### **Corrosion Resistant Coil (cont)**

- Lanced fins for maximum fin surface exposure
- Factory tested under high pressure
- Entire coil is accessible for cleaning

### **High Pressure Switch**

- Protects the system from high pressure conditions that can be a result of fan failure or a blocked/dirty coil
- Automatic reset

### **Low Pressure Switch**

- Shuts off unit if suction pressure falls below setting
- Provides loss of charge and freeze-up protection
- Automatic reset

### **High-Capacity Liquid Line Drier**

- Furnished for field installation
- Drier traps moisture or dirt that could contaminate the system
- 100% molecular-sieve, bead type, bi-flow drier

## **OPTIONAL ACCESSORIES**

### **Expansion Valve Kits**

- Field installed on indoor units (if required)
- See TXV Usage table
- Chatleff style fitting

### **Freezestat**

- Senses suction line temperature
- Cycles compressor off when suction line temperature falls below freezestat setpoint
- Opens at 29°F and closes at 58°F
- Installs on or near the discharge line of the evaporator or on the suction line

## **INDOOR REFRIGERANT DETECTION SYSTEM (RDS)**

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Factory or field installed on all indoor units
- Consists of a RDS refrigerant detection sensor and a mitigation control in the indoor unit
- Ensures safe operation for systems equipped with R-454B refrigerant
- Indoor sensor will detect any R-454B refrigerant
- If R-454B refrigerant is detected, the refrigerant detection system will stop compressor operation and operate the blower to reduce concentrations in the conditioned space
- Once safe levels are reached the HVAC system will resume normal operation
- **Refer to indoor unit Product Specifications documents for additional details**

## **COMPRESSOR**

### **Two-Stage Scroll Compressor**

- High volumetric efficiency
- Uniform suction flow
- Constant discharge flow
- Quiet operation

### **Compressor Crankcase Heater (-060 models)**

- Prevents liquid refrigerant migration into compressor and ensures proper compressor lubrication

## **OPTIONAL ACCESSORIES**

### **Compressor Crankcase Heater (024-036-048 models)**

- Prevents liquid refrigerant migration into compressor and ensures proper compressor lubrication

### **Compressor Hard Start Kit**

- In conditions such as low voltage, kit may be required to increase the compressor starting torque
- NOTE** - Hard start kit is required in applications where the supply voltage is less than 230V.

## **COMPRESSOR (CONT)**

### **Compressor Low Ambient Cut-Off**

- Non-adjustable switch (low ambient cut-out)
- Prevents compressor operation when outdoor temperature is below 35°F

### **Compressor Sound Cover**

- Reinforced vinyl compressor cover
- 1-1/2 inch thick batt fiberglass insulation
- All open edges are sealed with a one-inch wide hook and loop fastening tape

### **Compressor Time-Off Control**

- Kit prevents compressor short-cycling and allows time for suction and discharge pressure to equalize.
- Permits compressor start-up in an unloaded condition.
- Automatic reset with 5 minute delay between compressor shut-off and start-up

## **CABINET**

- Heavy-gauge steel construction
- Pre-painted powder paint cabinet finish
- Louvered heavy gauge steel panels surround unit on all four sides
- Control box is conveniently located with all controls factory wired
- Corner patch plate allows access to compressor components
- Drainage holes are provided in base section for moisture removal

### **Zinc-Coated Steel Unit Base**

- Resists rust and corrosion
- Refrigerant Line Connections, Electrical Inlets and Service Valves
- Sweat connection suction and liquid lines located on corner of unit cabinet
- Suction valve can be fully shut off, while liquid valve may be front seated to manage refrigerant charge while servicing system
- Refrigerant line connections and field wiring inlets are located in one central area of the cabinet
- See dimension drawing

### **Braze-Free/Press Fitting Flexibility**

- Units can accommodate braze-free or press fittings for installation versatility

## **OPTIONAL ACCESSORIES**

### **Unit Stand-Off Kit**

- Black high density polyethylene feet are available to raise unit off of mounting surface away from damaging moisture
- Four feet are furnished per kit

## **CONTROLS**

## **OPTIONAL ACCESSORIES**

### **Thermostat**

- Thermostat is not furnished with unit
- See **GEAppliancesAirandWater.com** for selection

### **Blower Relay Kit (for use with furnaces equipped with constant torque blower motors)**

- Allows furnace blower speed changes when matched with two-stage air conditioners

### **Indoor Blower Speed Relay**

- Relay kit provides the option of changing blower speeds on standard permanent split capacitor (PSC) multi-tap blower motors during cooling operation
- Provides optimum humidity control conditions by automatically reducing indoor blower speed during continuous fan operation or low stage compressor operation to reduce humidity levels

### **Low Ambient Kit**

- Air conditioners can operate down to 45°F outdoor air temperature without additional controls
- Allows unit to operate properly down to 30°F

**NOTE** - Crankcase heater and freeze-stat should be installed on compressors equipped with a low ambient kit.

**NOTE** - A Compressor Low Ambient Cut-Off Switch should be added to terminate compressor operation below recommended operation conditions.

SPECIFICATIONS							
Size		024		036	048	060	
Nominal Tonnage		2		3	4	5	
Sound Rating Number		dBA		75	73	74	75
Connections (Sweat)		Liquid line (OD) - in.		3/8			
		Suction line (OD) - in.		3/4	7/8		1-1/8
Compressor Type		2-Stage Scroll					
Refrigerant Type		1 R-454B charge furnished	6 lbs. 4 oz.	6 lbs. 8 oz.	7 lbs. 14 oz.	9 lbs. 5 oz.	
Indoor Unit Expansion Valve (TXV)		26Z70			26Z71	26Z72	
Outdoor Coil	Net face area - ft. <sup>2</sup>	Outer coil	16.33			24.93	
		Inner coil	15.75			24.13	
	Tube diameter - in.		5/16				
	Rows		2				
	Fins - in		22				
Outdoor Fan	HP	1/6	1/8	1/6	1/4		
	Diameter - in.		22				
	Blades		3				
	Cfm	2960	2890	3200	3620		
	Rpm	825	825	825	825		
	Watts	200	165	240	265		
Shipping Data - lbs.		185		188	206	246	
ELECTRICAL DATA							
Line voltage data (Volts-Phase-Hz)		208/230-1-60					
2 Maximum overcurrent protection (MOCP) amps (unit)		20		30	40	55	
3 Minimum circuit ampacity (MCA) (unit)		13.8		18.9	23.9	33.2	
Compressor	Rated load amps	10.3	14.6	18.3	25.2		
	Locked rotor amps	62	90	138	147.3		
Fan Motor	Full load amps	1	0.74	1	1.7		
	Locked rotor amps	1.9	1.65	1.9	3.2		
OPTIONAL CONTROLS - ORDER SEPARATELY							
Control		Part No.	024	036	048	060	
Remote Outdoor Temperature Sensor		X2658	●	●	●	●	
OPTIONAL ACCESSORIES - ORDER SEPARATELY							
Accessory		Part No.	024	036	048	060	
Compressor Crankcase Heater		27V63	●	●			
		27P59			●		
Compressor Hard Start Kit		10J42	●	●	●		
		28V41				●	
Compressor Low Ambient Cut-Off Switch		45F08	●	●	●	●	
Compressor Sound Cover		18J42	●	●	●	●	
Compressor Timed-Off Control		47J35	●	●	●	●	
Freezestat - 3/8 in		93G35	●	●	●	●	
Loss of Charge Switch Kit		84M23	●	●	●	●	
4 Low Ambient Kit (Fan Cycling)		34M72	●	●	●	●	
Unit Stand-Off Kit		94J45	●	●	●	●	

NOTE - Extremes of operating range are plus 10% and minus 5% of line voltage.

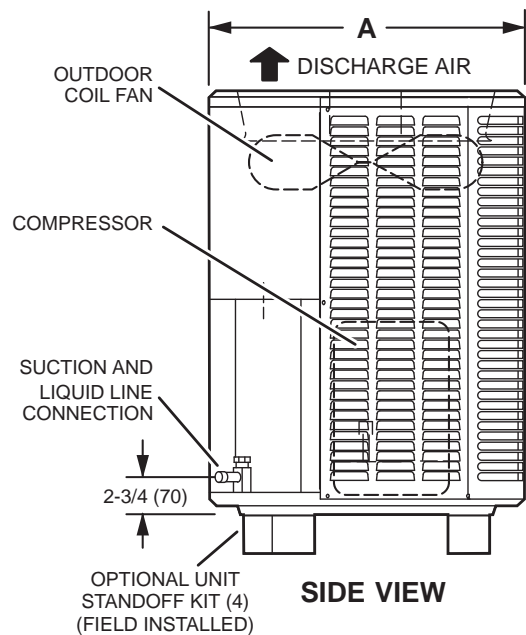
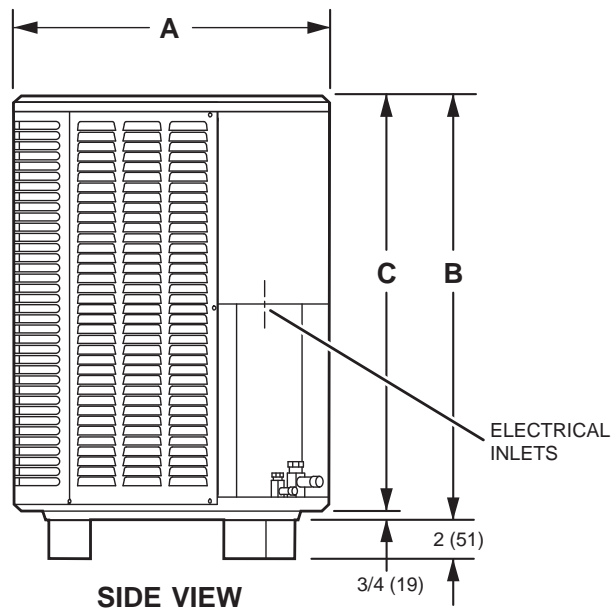
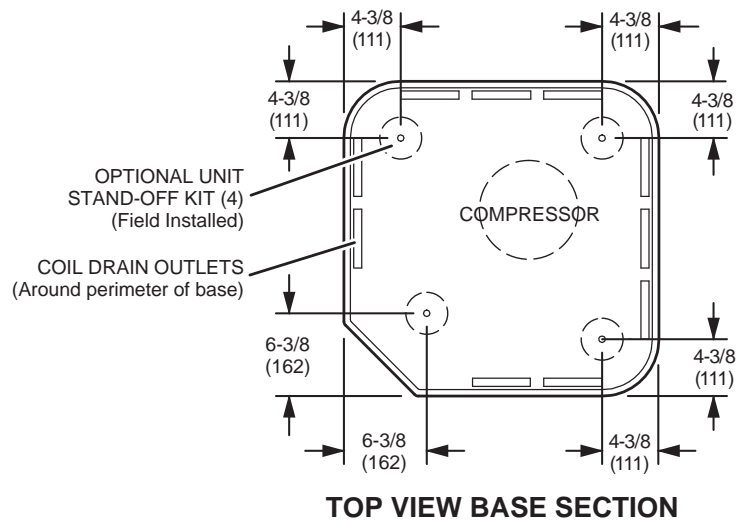
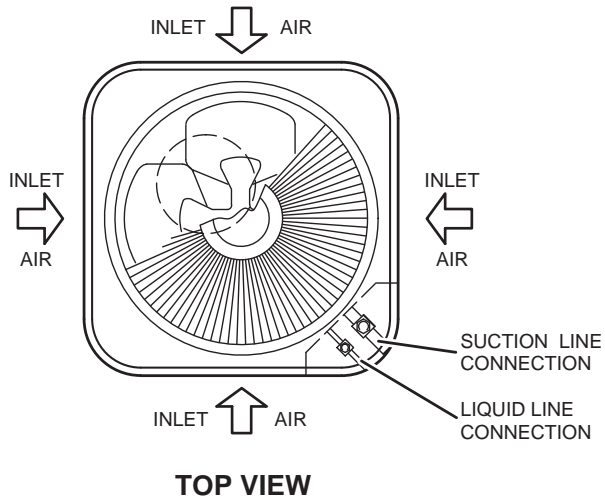
<sup>1</sup> Refrigerant charge is sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the Installation Instructions for information about line set length and additional refrigerant charge required.

<sup>2</sup> HACR type breaker or fuse.

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

<sup>4</sup> Crankcase Heater and Freezestat are recommended with Low Ambient Kit.

## DIMENSIONS - UNIT



Size	A Width and Depth		B Height		C	
	In.	mm	in.	mm	in.	mm
024	28-1/4	718	29-1/4	743	28-1/4	718
036	28-1/4	718	33-3/4	857	33	838
048	32-1/4	819	33-3/4	857	33	838
060	32-1/4	819	43-1/4	1099	42-1/4	1073

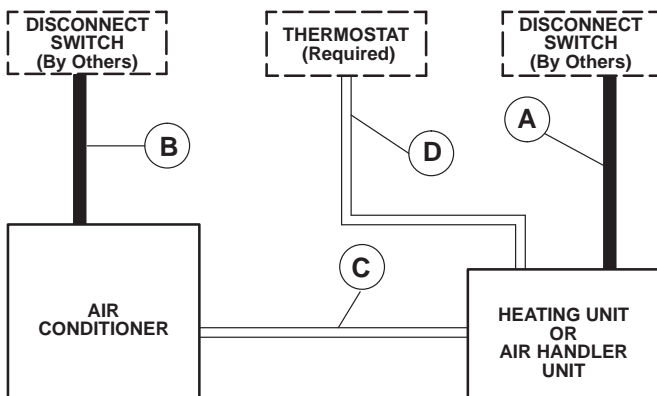
**SOUND DATA**

SIZE	Octave Band Sound Power Levels dBA, re 10 <sup>-12</sup> Watts Center Frequency - HZ							<sup>1</sup> Sound Rating Number (dBA)	<sup>2</sup> Estimated Sound Pressure Level at Distance From Unit (dBA at distance in ft.)				
	125	250	500	1000	2000	4000	8000		3	5	10	15	50
024	65.5	63.0	67.2	71.4	67.7	63.2	59.0	75	68	63	57	54	53
036	54.6	61.5	66.8	69.2	63.3	58.3	54.3	73	66	61	55	52	41
048	56.7	63.6	68.6	70.4	65.5	61.6	54.9	74	67	62	56	53	42
060	57.6	63.1	69.2	70.9	67.0	64.4	59.2	75	68	63	57	54	43

**NOTE** - the octave sound power data does not include tonal correction.

<sup>1</sup> Tested according to AHRI Standard 270-2008 test conditions.

<sup>2</sup> Estimated sound pressure level at distance based on AHRI Standard 275-2010 method for equipment located on the ground, roof, or on side of building wall with no adjacent reflective surface within 9.8 feet. Sound pressure levels will increase based on changes to assumptions. For other applications, refer to AHRI Standard 275.

**FIELD WIRING**

A - Two Wire Power (not furnished). See Indoor Unit Electrical Data

B - Two Wire Power (not furnished). See Electrical Data

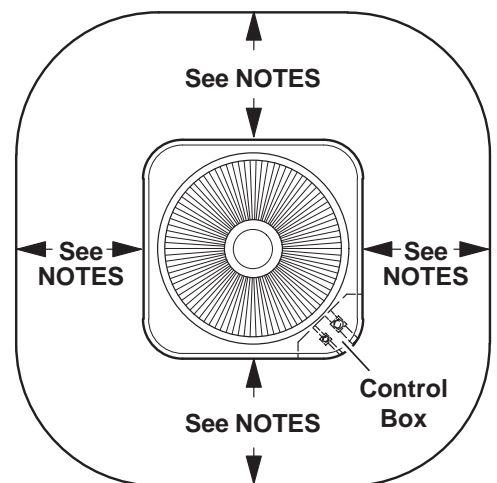
C - Four Wire Low Voltage (not furnished). 18 ga. minimum

D - Five Wire Low Voltage (not furnished). 18 ga. minimum

All wiring must conform to NEC or CEC and local electrical codes.

**INSTALLATION CLEARANCES****NOTES:**

- Service Clearance – 30 in. (762 mm) on one of the sides adjacent to the Control Box.
- One of other three sides must be 36 in. (914 mm).
- One of the two remaining sides may be 12 in. (305 mm).
- The remaining side may be 6 in. (152 mm).
- 48 in. (1219 mm) clearance required on top of unit
- 24 in. (610 mm) required between two units



**TXV USAGE**

All **GE Appliances** coils and air handlers are shipped with a factory installed TXV. In most cases, no substitution is needed.

If a different size TXV is required, it will be listed in the **TXV SUBSTITUTION** table by size. The correct TXV must be ordered separately and field installed.

Size	Order No.
024	26Z70
036	26Z70
048	26Z71
060	26Z72

**AHRI STANDARD 210-240-2023**

Standard Ratings relating to cooling or heating capacities shall be net values, including the effects of circulating-fan heat, but not including supplementary electric heat. Power input used for calculating efficiency shall be the Total Power.

Standard Ratings of units which do not have indoor air-circulating fans furnished as part of the model, i.e., Coil-only System, shall be established by subtracting from the total cooling capacity 1,505 Btu/h per 1,000 SCFM, and by adding the same amount to the heating capacity for non-mobile-home, non-Space Constrained units. Total Power for both heating and cooling shall be increased by 441 W per 1,000 SCFM of indoor air circulated.

**TXV SUBSTITUTION - R-454B**

A general guide for replacing the factory installed R-454B TXV if the indoor unit (coil/air handler) is larger or smaller than the outdoor unit.

Outdoor Unit		Indoor Unit		Indoor TXV Furnished	Indoor TXV Replacement
Size	Tons	Size	Tons		
024	2	42	3.5	26Z71	26Z70
		48	4		
		49	4		
		50/60	4/5		
		51/61	4/5	26Z72	
		60	5		
036	3	42	3.5	26Z71	26Z70
		48	4		
		49	4		
		50/60	4/5		
		51/61	4/5	26Z72	
		60	5		
048	4	30/36	2.5/3	26Z70	26Z71
		36	3		
		60	5	26Z72	
060	5	50/60	4/5	26Z71	26Z72
		51/61	4/5		

**TXV Ranges:**

**26Z70** - 1.5 to 3 ton systems - Use on 3 ton (036) and lower systems.

**26Z71** - 3.5-4 ton systems - Use on 4 ton (048) and down to 3.5 ton (042) systems.

**26Z72** - 5 ton systems - Use on 5 ton (060) systems only.



**GE APPLIANCES**