



GE APPLIANCES

Product Specifications

NS16A*5
SINGLE STAGE SPLIT
SYSTEM AIR CONDITIONER -
R454B

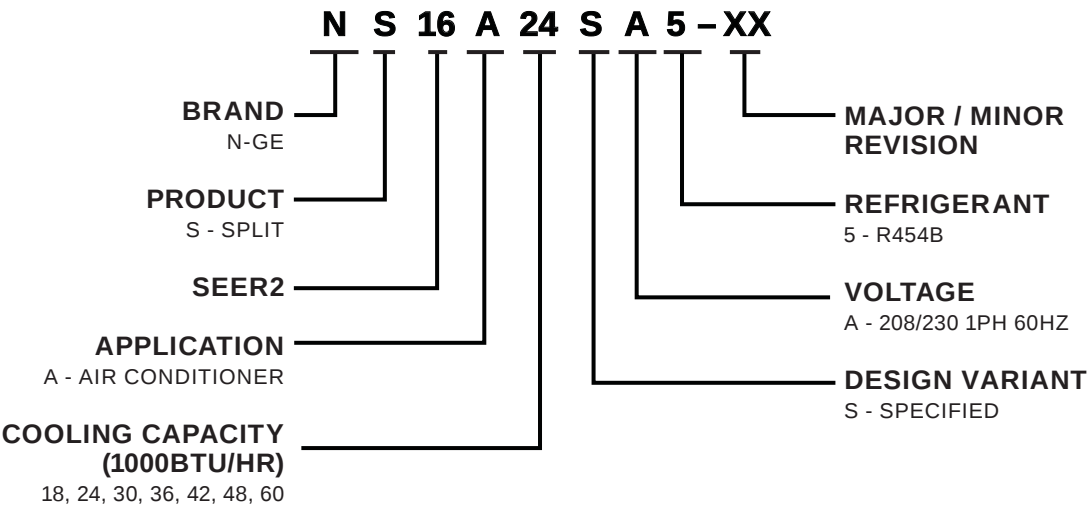


**READ CAREFULLY.
KEEP THESE INSTRUCTIONS.**

NS16A*5

PRODUCT SPECIFICATIONS

MODEL NUMBER GUIDE



APPROVALS

- AHRI Standard 210-240-2023 certified
- AHRI Certified system match-ups and expanded ratings, visit AHRIDirectory.org
- ENERGY STAR® Certified
- Sound rated to AHRI Standard 270-2008 test conditions
- Region specific models meet the minimum efficiency requirements for U.S. DOE Federal Regional Standards in that area
- ETL certified (U.S. and Canada)
- ISO 9001 Registered Manufacturing Quality System

APPLICATIONS

- 1.5 to 5 ton
- Sound levels as low as 73 dBA
- Single phase power supply
- Vertical air discharge
- Applicable to indoor air handlers or gas furnaces with indoor add-on coils
- Factory test operated

REFRIGERANT SYSTEM

R-454B Refrigerant

- Low GWP (Global Warming Potential)
- Zero ODP (Ozone Depletion Potential)
- Unit is factory pre-charged

Outdoor Coil Fan

- Direct drive fan
- Vertical air discharge
- Totally enclosed fan motor
- Ball bearings
- Inherently protected
- Motor rain shield

Corrosion Resistant Coil

- Enhanced aluminum alloy tube/enhanced fin coil
- Superior corrosion resistance
- Ripple-edged aluminum fins
- Aluminum tube construction
- Lanced fins for maximum fin surface exposure
- Factory tested under high pressure
- Entire coil is accessible for cleaning

High Capacity Liquid Line Drier

- Furnished with unit for field installation
- Traps any moisture or dirt that could contaminate the refrigerant system
- 100% molecular-sieve, bead type, drier

High Pressure Switch

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

Low Pressure Switch

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

REFRIGERANT SYSTEM (CONT)

OPTIONAL ACCESSORIES

Expansion Valve Kits

- Factory installed with R-454B on all Indoor units
- 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

Loss of Charge Switch Kit

- Protects compressor from damage from low refrigerant charge conditions
- SPST, normally-closed
- Automatic reset

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 an independent RDS control
- If refrigerant is detected the refrigerant detection system will prevent compressor and heating operation until refrigerant is no longer detected
- Refrigeration detection system also energizes the blower if refrigerant is detected to dissipate any concentrations of refrigerant from the space
- Refer to indoor unit Product Specifications documents for additional details

COMPRESSOR

Single Stage Scroll Compressor

- High volumetric efficiency
- Uniform suction flow
- Constant discharge flow
- High efficiency
- Quiet operation
- Low gas pulses during compression reduces operational sound levels
- Compressor motor is internally protected from excessive current and temperature
- Muffler in discharge line reduces operating sound levels
- Compressor is installed in the unit on resilient rubber mounts for vibration free operation

Compressor Crankcase Heater (042, 048 and 060 Models))

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

COMPRESSOR (CONT)

OPTIONAL ACCESSORIES

Compressor Crankcase Heater (018, 024, 030, 036 Models))

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

Compressor Sound Cover

- Polymer outer shell
- 1-1/2 inch thick batt fiberglass insulation
- All open edges are sealed with a one-inch wide hook and loop fastening tape

Compressor Hard Start Kit

- Single-phase units are equipped with a PSC compressor motor
- This type of motor normally does not need a potential relay and start capacitor
- For conditions such as low voltage, kit may be required to increase the compressor starting torque

Compressor Low Ambient Cut-Off

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

Compressor Time-Off Control

- Kit prevents compressor short-cycling
- 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

Indoor Blower Off Delay Relay Kit

- Delays the indoor blower-off time during the cooling cycle

Low Ambient Kit

- Heat pump can operate in the cooling mode down to 45°F outdoor air temperature without additional controls
- Allows unit to operate properly down to 30°F in the cooling mode

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

NOTE - A compressor lock-out thermostat should be added to terminate compressor operation below recommended operation conditions.

CABINET

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

Refrigerant Line Connections, Electrical Inlets, Service Valves

- Sweat connection vapor 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 cabinet for easy access
- See dimension drawing

Braze-Free/Press Fitting Flexibility

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

SPECIFICATIONS					
Size		018	024	030	036
Nominal Tonnage		1.5	2	2.5	3
Sound Rating Number	dBa	76	75	72	73
Connections (Sweat)	Liquid line (OD) - in.	3/8			
	Suction line (OD) - in.	3/4			7/8
Compressor Type		1-Stage Scroll			
Refrigerant Type	¹ R-454B charge furnished	4 lbs. 14 oz.		5 lbs. 10 oz.	6 lbs. 13 oz.
Indoor Unit Expansion Valve (TXV)		26Z70			
Outdoor Coil	Net face area - ft. ²	Outer coil	16.33	21.00	16.33
		Inner coil	---		15.75
	Tube diameter - in.		5/16		
	Rows		1	2	
	Fins - in		26	22	
Outdoor Fan	HP		1/8		1/6
	Diameter - in.		22		
	Blades		2	3	
	Cfm		2610	2990	2820
	Rpm		825		
	Watts		160		190
Shipping Data - lbs.		155	170	180	200
ELECTRICAL DATA					
Line voltage data (Volts-Phase-Hz)		208/230-1-60			
² Maximum overcurrent protection (MOCP) amps (unit)		15	20	25	30
³ Minimum circuit ampacity (MCA) (unit)		11.2	13.6	16.6	21.8
Compressor	Rated load amps	8.3	10.3	12.7	16.7
	Locked rotor amps	45	60.2	75.6	93.5
Fan Motor	Full load amps	0.74			1.0
	Locked rotor amps	1.65			1.9

OPTIONAL ACCESSORIES - ORDER SEPARATELY					
Accessory	Part No.	018	024	030	036
Compressor Crankcase Heater	27V63	•	•	•	•
	27U16	•	•	•	•
Compressor Hard Start Kit	63W22	•			
	10J42		•	•	•
	10J42	•	•	•	•
	88M91				
Compressor Low Ambient Cut-Off	47J27	•	•	•	•
Compressor Timed-Off Control	47J35	•	•	•	•
Freezestat	93G35	•	•	•	•
Indoor Blower Off Delay Relay	58M81	•	•	•	•
Loss of Charge Switch Kit	84M23	•	•	•	•
⁴ Low Ambient Kit (Fan Cycling)	34M72	•	•	•	•

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

¹ 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.

² HACR type breaker or fuse.

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

⁴ Crankcase Heater and Freezestat are recommended with Low Ambient Kit.

SPECIFICATIONS					
Size			042	048	060
Nominal Tonnage			3.5	4	5
Sound Rating Number		dBa	76	75	
Connections (Sweat)		Liquid line (OD) - in.	3/8		
		Suction line (OD) - in.	7/8		1-1/8
Compressor Type			1-Stage Scroll		
Refrigerant Type		¹ R-454B charge furnished	7 lbs. 2 oz.	8 lbs. 14 oz.	
Indoor Unit Expansion Valve (TXV)			26Z71		26Z72
Outdoor Coil	Net face area - ft. ²	Outer coil	22.17	24.93	29.09
		Inner coil	21.33	24.13	28.16
	Tube diameter - in.		5/16		
	Rows		2		
	Fins - in		22		
Outdoor Fan	HP		1/4		
	Diameter - in.		26	22	26
	Blades		3	4	
	Cfm		4060	3700	4180
	Rpm		825		
	Watts		260	290	
Shipping Data - lbs.			225	235	260
ELECTRICAL DATA					
Line voltage data (Volts-Phase-Hz)			208/230-1-60		
² Maximum overcurrent protection (MOCP) amps (unit)			35	45	50
³ Minimum circuit ampacity (MCA) (unit)			23	29.7	31
Compressor	Rated load amps		17.3	22.4	23.7
	Locked rotor amps		123	126	157
Fan Motor	Full load amps		1.4	1.7	1.4
	Locked rotor amps		3.2		---
OPTIONAL ACCESSORIES - ORDER SEPARATELY					
Accessory		Part No.	042	048	060
Compressor Crankcase Heater	27V63		Factory Installed		
	27U16				
Compressor Hard Start Kit	63W22				
	10J42		•	•	•
	10J42		•		
	88M91			•	•
Compressor Low Ambient Cut-Off		47J27	•	•	•
Compressor Timed-Off Control		47J35	•	•	•
Freezestat - 3/8 in		93G35	•	•	•
Indoor Blower Off Delay Relay		58M81	•	•	•
Loss of Charge Switch Kit		84M23	•	•	•
⁴ Low Ambient Kit (Fan Cycling)		34M72	•	•	•

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

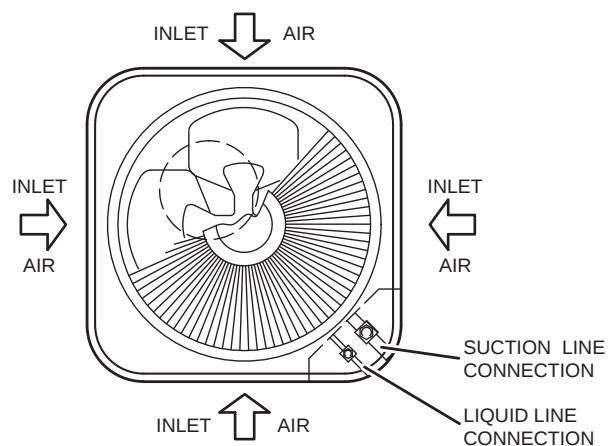
¹ Refrigerant charge is sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the Installation Instructions for information about line set length and additional refrigerant charge required.

² HACR type breaker or fuse.

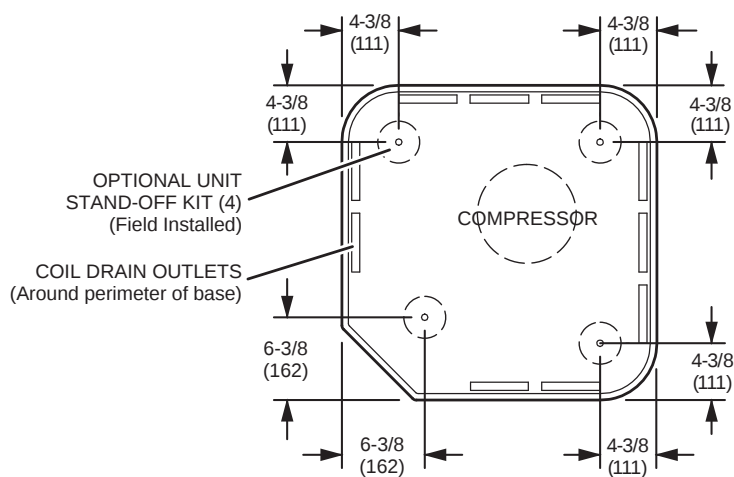
³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

⁴ Crankcase Heater and Freezestat are recommended with Low Ambient Kit.

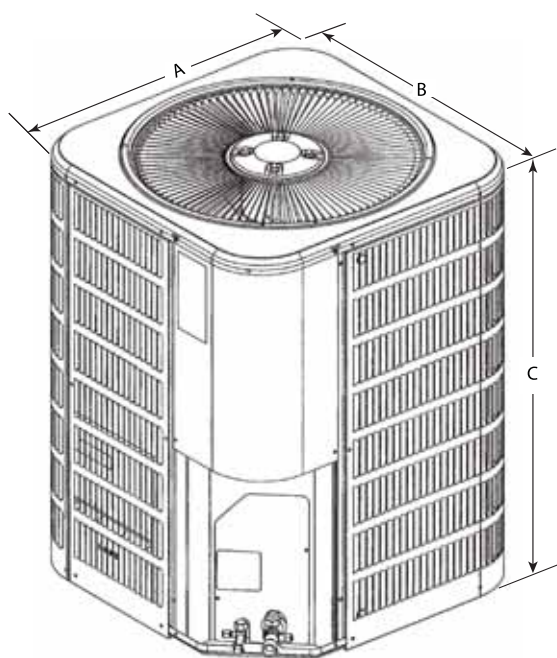
DIMENSIONS - UNIT



TOP VIEW



TOP VIEW BASE SECTION



Size	A, B Width and Depth		C Height	
	In.	mm	in.	mm
018	28-1/4	718	29-1/4	743
024	28-1/4	718	37-1/4	946
030	28-1/4	718	29-1/4	743
036	28-1/4	718	37-1/4	946
042	32-1/4	819	33-1/4	845
048	28-1/4	718	43-1/4	1099
060	32-1/4	819	43-1/4	1099

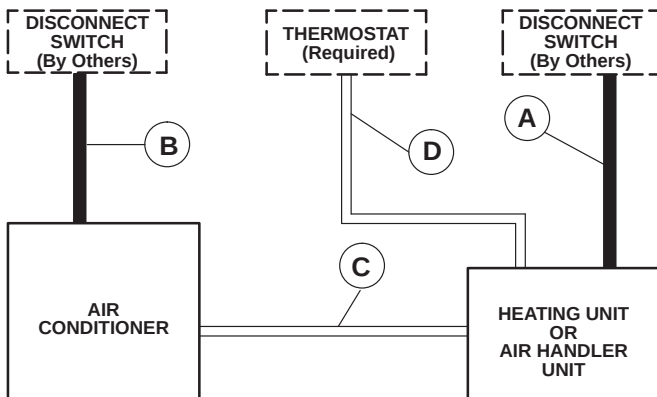
EXPANDED SOUND DATA

SIZE	Octave Band Sound Power Levels dBA, re 10 ⁻¹² Watts Center Frequency - HZ							¹ Sound Rating Number (dBA)	² 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
18	55.5	64.5	69	67.5	65	61	56	73	66	61	55	52	41
24	61.5	64	70	69.5	66	62.5	54.5	75	68	63	57	54	43
30	60	67	72	70.5	67.5	62.5	56	76	69	64	58	55	44
36	58	67.5	72.5	71.5	66.5	62	54.5	76	69	64	58	55	44
42	59.5	67.5	71.5	70	69	63.5	57.5	76	69	64	58	55	44
48	60	70.5	73.5	72.5	70.5	67	60.5	78	71	66	60	57	46
60	63.5	69.5	75	75	73	68	62.5	80	73	68	62	59	48

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

¹ Tested according to AHRI Standard 270-2008 test conditions.

² 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

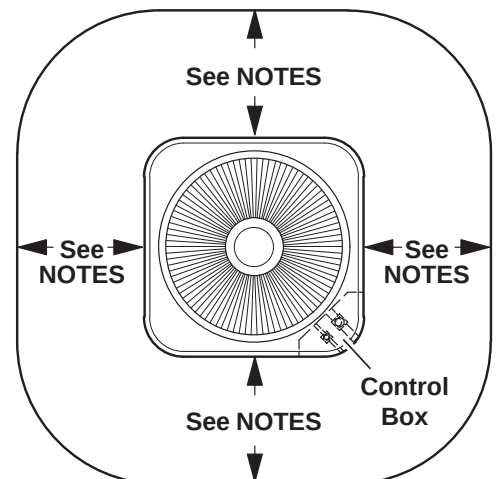
C - Four Wire Low Voltage (not furnished). 18 ga. minimum

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.
018	26Z70
024	26Z70
030	26Z70
036	26Z70
042	26Z71
048	26Z71
060	26Z72

AHRI STANDARD 210-240-2023

Cooling or heating capacities are net values, including the effects of blower motor heat, and do not include supplementary heat. Power input is the total power input to the compressor(s) and fan(s), plus any controls and other items required as part of the system for normal operation.

Units which do not have an indoor air-circulating blower furnished as part of the model, i.e., split system with indoor coil only, is established by subtracting from the total cooling capacity 1250 Btu/h per 1,000 cfm, and by adding the same amount to the heating capacity.

Total power input for both heating and cooling is increased by 365 W per 1,000 cfm 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		
018	1.5	42	3.5	26Z71	26Z70
		48	4		
		49	4		
		50/60	4/5		
		51/61	4/5	26Z72	
		60	5		
024	2	42	3.5	26Z71	26Z70
		48	4		
		49	4		
		50/60	4/5		
		51/61	4/5	26Z72	
		60	5		
030	2.5	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		
042	3.5	24	2	26Z70	26Z71
		30	2.5		
		30/36	2.5/3		
		36	3		
		60	5	26Z72	
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.

NOTES



GE APPLIANCES

All specifications and illustrations subject to change without notice and without incurring obligations.

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