

LENNOX

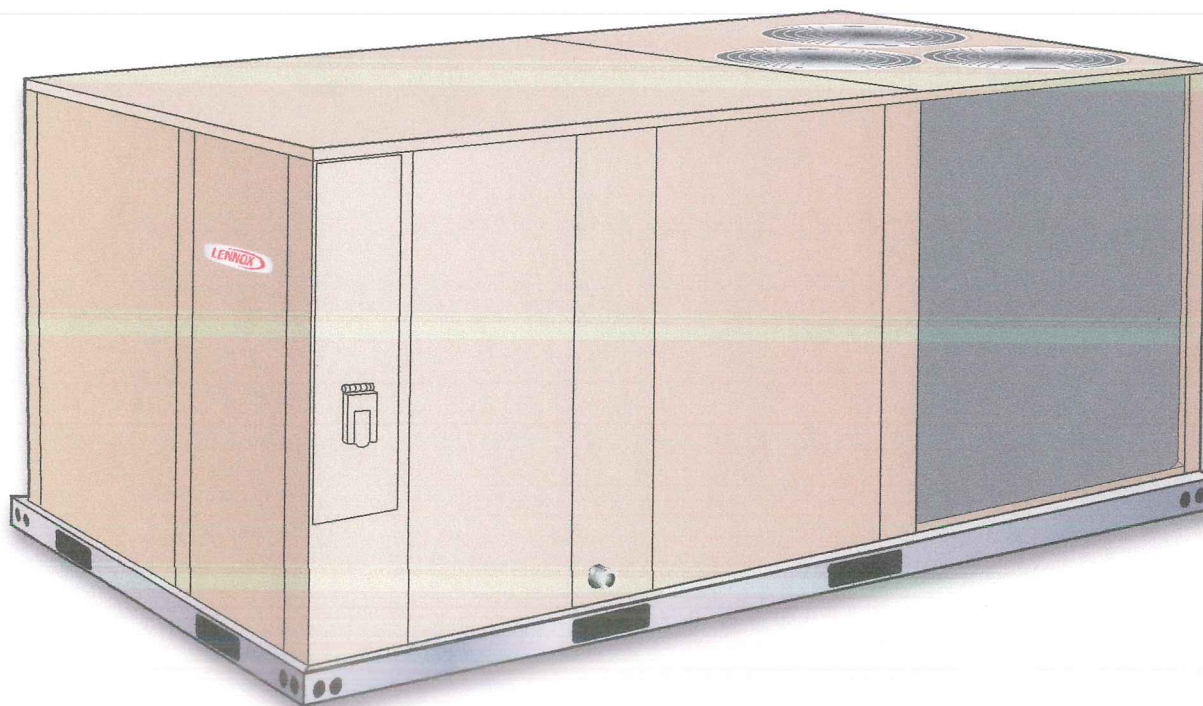
ENGINEERING DATA

KH

Landmark™ Rooftop Units

60 HZ

Bulletin No. 210551
October 2010
Supersedes August 2010

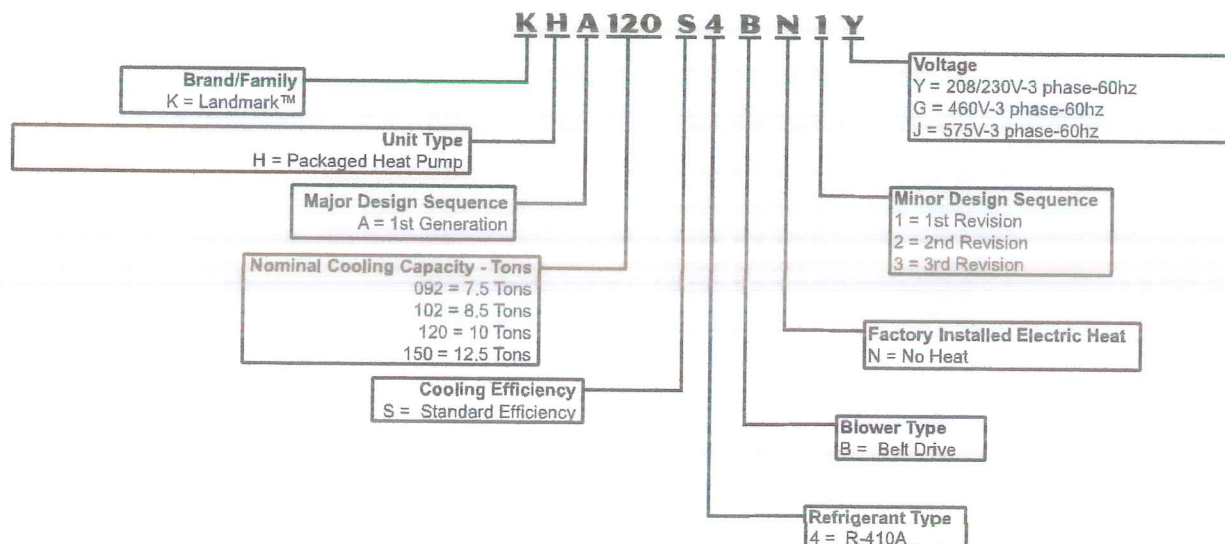


**ASHRAE 90.1
COMPLIANT**

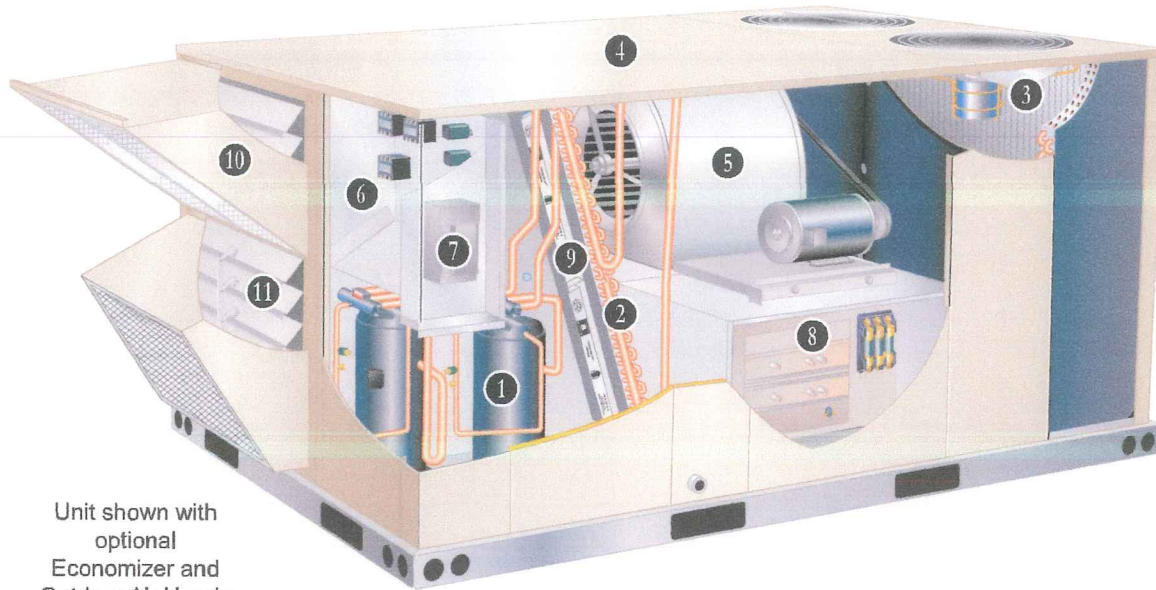
L Connection
N E T W O R K

7.5 to 12.5 Tons
Net Cooling Capacity - 87,000 to 138,000 Btuh
Net Heating Capacity - 89,000 to 138,000 Btuh
Optional Electric Heat - 7.5 to 60 kW

MODEL NUMBER IDENTIFICATION



FEATURES AND BENEFITS



Landmark™ rooftop units from Lennox are the new standard for reliable, efficient rooftop units built for long-lasting performance that can significantly improve indoor and outdoor environments. Landmark rooftop units feature:

- **R-410A Refrigerant** - Environmentally friendly
- **Scroll Compressors** - Single speed scroll compressors are furnished on all models.
- **High Pressure Switches** - Protect compressor.
- **Isolated Compressor Compartment** - Allows performance check during normal compressor operation without disrupting airflow.
- **Independent Motor Mounts** - Allows for easy and efficient service access without removing the top panel.
- **Downflow or Horizontal Airflow** - Easy field conversion.
- **Two Fork Lift Slots on Three Sides** - Easy to pick up and transport units from almost any angle.
- **Corrosion-Resistant Removable, Reversible Drain Pan** - Provides application flexibility, durability and improved serviceability.
- **Thermostatic Expansion Valves** - Provide peak cooling performance across the entire application range.
- **MERV 8 or MERV 13 Filters** - Available as field installed option, provide an enhanced level of indoor air quality, and can help the building qualify for additional LEED credits.

SPECIFICATIONS

General Data

Nominal Tonnage		10 Ton	10 Ton	12.5 Ton	12.5 Ton
Model Number		KHA120S4B	KHA120S4M	KHA150S4B	KHA150S4M
Efficiency Type		Standard	Standard	Standard	Standard
Blower Type		Constant Air Volume (CAV)	MSAV (Multi-Stage Air Volume)	Constant Air Volume (CAV)	MSAV (Multi-Stage Air Volume)
Cooling Performance	Gross Cooling Capacity - Btuh	121,500	121,500	144,300	144,300
	¹ Net Cooling Capacity - Btuh	118,000	118,000	138,000	138,000
	AHRI Rated Air Flow - cfm	3600	3600	4500	4500
	Total Unit Power - kW	10.7	10.7	13.0	13.0
	¹ EER (Btuh/Watt)	11	11.0	10.6	10.6
	¹ IEER (Btuh/Watt)	11.3	12.5	10.7	12.0
Refrigerant Type		R-410A	R-410A	R-410A	R-410A
Heating Performance	Refrigerant Charge	15 lbs. 0 oz.	15 lbs. 0 oz.	22 lbs. 0 oz.	22 lbs. 0 oz.
	Furnished	Circuit 1	Circuit 2	23 lbs. 0 oz.	23 lbs. 0 oz.
	¹ Total High Heat Capacity - Btuh	116,000	116,000	138,000	138,000
	Total Unit Power - kW	10.3	10.3	12.6	12.6
	¹ C.O.P.	3.3	3.30	3.2	3.20
	¹ Total Low Heat Capacity - Btuh	72,000	72,000	82,000	82,000
Total Unit Power (kW)		9.4	9.4	11.7	11.7
¹ C.O.P.		2.25	2.25	2.05	2.05
Electric Heat Available - See page 27		15, 22.5, 30, 45 & 60 kW			
Compressor Type (number)		Scroll (2)	Scroll (2)	Scroll (2)	Scroll (2)
Outdoor Coils	Net face area (total) - sq. ft.	28.8	28.8	40.8	40.8
	Tube diameter - in.	3/8	3/8	3/8	3/8
	Number of rows	3	3	3	3
	Fins per inch	20	20	20	20
Outdoor Coil Fans	Motor - (No.) horsepower	(2) 1/2	(2) 1/2	(3) 1/3	(3) 1/3
	Motor rpm	1075	1075	1075	1075
	Total Motor watts	806	806	1150	1150
	Diameter - (No.) in.	(2) 24	(2) 24	(3) 24	(3) 24
	Number of blades	3	3	3	3
	Total Air volume - cfm	8800	8800	11,000	11,000
Indoor Coils	Net face area (total) - sq. ft.	12.8	12.8	12.8	12.8
	Tube diameter - in.	3/8	3/8	3/8	3/8
	Number of rows	4	4	4	4
	Fins per inch	14	14	14	14
Drain connection - Number and size		(1) 1 in. NPT coupling			
Expansion device type		Balance port TXV, removable head			
² Indoor Blower and Drive Selection	Nominal motor output	2 hp, 3 hp, 5 hp			
	Maximum usable motor output (US Only)	2.3 hp, 3.45 hp, 5.75 hp			
	Motor - Drive kit number	2 hp ³ Kit 1 590-890 rpm Kit 2 800-1105 rpm Kit 3 795-1195 rpm 3 hp Kit 4 730-970 rpm Kit 5 940-1200 rpm Kit 6 1015-1300 rpm 5 hp Kit 10 900-1135 rpm Kit 11 1040-1315 rpm Kit 12 1125-1425 rpm			
	Blower wheel nominal diameter x width - in.	(1) 15 X 15	(1) 15 X 15	(1) 15 X 15	(1) 15 X 15
Filters	Type of filter	Disposable			
	Number and size - in.	(4) 20 x 25 x 2			
Electrical characteristics		208/230V, 460V or 575V - 60 hertz - 3 phase			

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

¹ AHRI Certified to AHRI Standard 340/360:

Cooling Ratings - 95°F outdoor air temperature and 80°F db/67°F wb entering indoor coil air.

High Temperature Heating Ratings - 47°F db/43°F wb outdoor air temperature and 70°F entering indoor coil air.

Low Temperature Heating Ratings - 17°F db/15°F wb outdoor air temperature and 70°F entering indoor coil air.

² Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

³ Standard motor and drive kit furnished with unit.

NOTE - Units equipped with MSAV® (Multi-Stage Air Volume) option are limited to a motor service factor of 1.0.