YH636E2S11

YORK R-454B Outdoor Split-System Heat Pump - YH6

SEER2 [14.3 to 17.0]
EER2 [11 to 12]
HSPF IV [7.5 to 8.5]
Cooling capacity [22400 to 55000]
Heating capacity [22600 to 60000]
COP @ 5°F (-15°C) [up to 2.38]

Description

The YH6 models are part of our successful split system heat pump lineup. These outdoor units are optimized for 16 SEER2/8.0 HSPF2 Minimum Efficiency in all US Regions, and are specifically designed to be matched with our residential indoor coils, furnaces, and air handlers to provide a complete system solution.

Figure 1: Installation map

Due to continuous product improvement, specifications are subject to change without notice.

Visit us on the web at www.simplygettingthejobdone.com and www.york.com.

Additional rating information can be found at www.ahridirectory.org.

This document is only for distribution use - it is not to be used at point of retail sale.

Certification

The units are tested in accordance with the following:

Assembled at a facility with an ISO 9001:2015-certified Quality Management System

C SA US

AHRI CERTIFIED

Features

- **Easier installation** - Independent panels provide quick access for unit setup. Installation time is reduced by easy power and control wiring access. All models use TXVs. The filter-drier is shipped loose for installation in the field. The unit is factory-charged for 15 ft refrigeration piping. The small base dimension and reduced unit clearances make for easier retrofits.
- **Accessible information** - QR code on unit provides quick access to technical documents and warranty information.
- **Durable finish** - The coated steel wire fan guard, coated external fasteners, and pre-treated G90-equivalent galvanized steel chassis components resist corrosion and rust creep. Powdercoat paint further protects external panels.
- **Rugged coil protection** - Coils are protected from mechanical damage by a an extruded louver coil guard.
- **Quality coils** - Enhanced aluminum fins are mechanically bonded to copper tubing.
- **Protected compressor** - Compressors are protected internally by a high pressure relief valve and a temperature sensor, and externally by the system high and low pressure switches.
- **Reliable operation** - Ball bearing fan motors provide superior performance in extreme temperatures.
- **Environmentally friendly** - CFC-free R-454B refrigerant delivers environmentally friendly performance with zero ozone depletion and a global warming potential of 467.
- **Top discharge** - Warm air is blown up, away from the structure and any landscaping and allows compact location on multi-unit applications.
- **Low operating sound levels** - Developed using CFD and FEA tools, the sturdy cabinet and top design provides sound performance as low as 70 dBA. Compatible accessories for further sound reduction are also available.
- **Better service access** - Diagonal base valves with open access for low-loss fittings, single panel access to the electrical controls, full corner access, and removable fan guard allow easy access for unit maintenance.
- **Agency listed** - Safety certified by CSA to UL 60335-2-40 4th edition. Performance certified to ANSI/AHRI Standard 210/240 in accordance with the Unitary Small Equipment certification program.

Unit warranties

- Unit manufacturer shall provide a limited 10-year compressor warranty without a requirement for unit registration.
- Unit manufacturer shall provide a limited 5-year parts warranty extended to 10 years with registration.

YH636E2S11

Tabular Data Sheet

LX Series Split-System Heat Pumps

16+ SEER2 – R-454B – Single-Phase – 2 ton to 5 ton

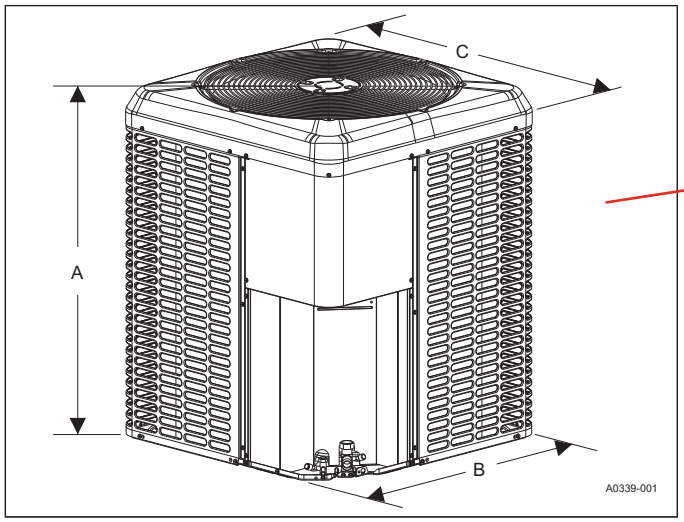
Models: YH624 to YH660

Physical and electrical data

Unit model		YH624E2S11	YH636E2S11	YH648E2S11	YH660E2S11
Unit supply voltage		208-230 V, 1 Ph, 60 Hz			
Normal voltage range (V)[1]		187 to 252			
Minimum circuit ampacity (A)		15.0	20.4	27.2	31.8
Maximum overcurrent device (A)[2]		25	30	45	50
Minimum overcurrent device (A)[3]		15	25	30	35
Compressor	Type	Two-stage scroll	Two-stage scroll	Two-stage scroll	Two-stage scroll
	Rated load (A)	10.2	14.5	20.0	23.7
	Locked rotor (A)	62.0	76.0	141.0	123.0
Crankcase heater		Yes	Yes	Yes	Yes
Factory external discharge muffler		Yes	Yes	Yes	Yes
Hard start kit required with TXV[4]		No	No	No	No
Fan diameter (in.)		22	26	24	26
Fan motor	Type	ECM	ECM	ECM	ECM
	Rated HP	1/3	1/3	1/3	1/3
	Rated load (A)	2.20	2.20	2.20	2.20
	Nominal RPM	875	682	917	917
	Nominal CFM	3055	3755	4200	4760
Coil	Face area (sq ft)	17.9	26.4	23.8	31.2
	Rows deep	1	1	2	2
	Fins per inch	22	22	18	18
Liquid refrigerant piping outdoor (field-installed)		3/8	3/8	3/8	3/8
Vapor refrigerant piping outdoor (field-installed)[5]		3/4	3/4	7/8	1 1/8‡
Unit charge (lb - oz)[6]		5 - 2	6 - 12	10 - 0	14 - 11
Charge (oz/ft)		0.57	0.57	0.60	0.67
Operating weight (lb)		172	243	255	282

1. Rated in accordance with AHRI Standard 110-2012, utilization range A.
2. Dual element fuses or HACR circuit breaker. Maximum allowable overcurrent protection.
3. Dual element fuses or HACR circuit breaker. Minimum recommended overcurrent protection.
4. Refer to the *Hard Start Kit Accessory Installation Manual* for the hard start kit part number for each model. The hard start kit is a field-installed accessory.
5. For applications with non-standard vapor line sizes, refer to the *Applications and Accessories* section in the *Technical Guide*.
6. The unit charge is correct for the outdoor unit, smallest matched indoor unit, and 15 ft of refrigerant tubing. For tubing lengths other than 15 ft, add or subtract the amount of refrigerant, using the difference in actual refrigerant piping length (not the equivalent length) multiplied by the per foot value.

‡ The adapter fitting must be field-installed for the required 1 1/8 in. of refrigerant piping.



Dimensions

Unit model	Dimensions (in.)			Refrigerant connection service valve size (in.)	
	A	B	C	Liquid	Vapor
YH624E2S11	36 1/4	29 1/4	29 1/4	3/8	3/4
YH636E2S11	39 1/2	38	34 1/4		
YH648E2S11	39 1/2	35 1/4	31 3/4		7/8
YH660E2S11	46	38	34 1/4		7/8‡

Notes:

All dimensions are in inches and are subject to change without notice.
The overall height is from the bottom of the base pan to the top of the fan guard.
The overall length and width include screw heads.
‡ The adapter fitting must be field-installed for the required 1 1/8 in. of refrigerant piping.

System charge for various matched systems

Charge adjustment	Upflow or horizontal left				Downflow or horizontal right[1]			
Outdoor unit	**24**	**36**	**48**	**60**	**24**	**36**	**48**	**60**
Required indoor metering device[2,3]	**5A1**	**5C1**	**5C1**	**5C1**	**5A1**	**5C1**	**5C1**	**5C1**
Indoor unit[4,5,6]	**Additional charge (oz)**							
CT(F,M,U)30*C	0	—	—	—	3	—	—	—
CT(F,M,U)30*D	16	0	—	—	21	-2	—	—
CT(F,M,U)36*D	—	0	—	—	—	-2	—	—
CT(F,M,U)48*F	—	5	—	—	—	8	—	—
CT(F,M,U)60*G	—	—	0	—	—	—	-32	—
CT(F,M,U)60*H	—	—	4	0	—	—	-14	-34
CT(F,M,U)60*J	—	—	—	27	—	—	—	-7
JHE24*C	0	—	—	—	3	—	—	—
JHE30*D	16	0	—	—	21	-2	—	—
JHE36*D	—	0	—	—	—	-2	—	—
JHE42*F	—	5	—	—	—	8	—	—
JHE48*G	—	—	0	—	—	—	-32	—
JHE60*H	—	—	4	0	—	—	-14	-34
JHE60*J	—	—	—	27	—	—	—	-7
JHC24*C	—	—	—	—	—	—	—	—
JHC36*D	—	0	—	—	—	-2	—	—
JHC42*F	—	5	—	—	—	8	—	—
JHC48*G	—	—	0	—	—	—	-32	—
JHC60*H	—	—	4	0	—	—	-14	-34
JHC60*J	—	—	—	27	—	—	—	-7

Note: Some of the combinations shown in this table require advanced main air circulating fan indoor product. For approved coil-only matches, refer to the *System capacity* tables in the *Technical Guide*.

1. A negative number indicates that you remove charge.
2. For applications that require a TXV, use a S1-1TVM*** series kit.
3. Use a TXV kit with these indoor units to obtain system performance.
4. Systems matched with furnaces or air handlers not equipped with blower-off delays may require blower time delay.
5. Do not use CTF or CTU coils in horizontal applications.
6. The charge adders shown above do not indicate that coils are rated for every application. Refer to the performance data tables in the *Technical Guide* for actual performance for specified system matches. Obtain certified system ratings from www.ahridirectory.org.

Charging

1. Check the factory unit charge listed on the unit nameplate to verify the refrigerant charge for the outdoor unit, the smallest matched indoor unit, and the 15 ft of interconnecting refrigeration piping.
2. Verify the indoor metering device and additional charge required for the specific matched indoor unit in the system using the table above.
3. Add additional charge for the amount of interconnecting refrigeration piping greater than 15 ft at the rate specified in the *Physical and electrical data* table.
4. For installations requiring additional charge, weigh in refrigerant for the specific matching indoor unit and actual refrigeration piping length.
5. After weighing in the charge adders for the matched indoor unit and refrigeration piping, verify the system operation against the temperatures and pressures in the charging chart for the outdoor unit. Locate the charging charts on the outdoor unit and also in the *Service Data Application Guide* on www.simplygettingthejobdone.com. Follow the subcool or superheat charging procedure in the *Installation Manual* according to the type of indoor metering device in the system, and allow 10 min after each charge adjustment for the system operation to stabilize. Record the charge adjustment made to match the charging chart.
6. Permanently stamp the unit nameplate with the total system charge defined as follows: total system charge = base charge (as shipped) + charge adder for matched indoor unit + charge adder for actual refrigeration piping length + charge adjustments to match the charging chart.

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