

4SHP17LE

PRODUCT SPECIFICATIONS

HIGH EFFICIENCY
SPLIT SYSTEM HEAT PUMP
UP TO 18.2 SEER & 10.6 HSPF
UP TO 16.8 SEER2 & 8.5 HSPF2

FORM NO. 4SHP17LE-100 (01/2023)



COMPRESSOR

- High-efficiency scroll compressor
- R410A refrigerant
- Grommet mounted compressor for quiet operation
- Heavy-duty compressor sound blanket for quiet operation
- Internally protected against high temperature motor overload conditions

CABINET

- Full metal louvered panel with 2 screws to remove for ease of coil cleaning and service
- Corner-mounted controls for easy service
- Rounded corners for safety and attractive, clean appearance
- Baked polyester paint finished over galvanized steel for maximum durability
- Removable PVC coated wire fan discharge grill
- 45-degree offset gauge ports for easy service
- Removable service panel for internal access

COILS

- Omniguard® total corrosion protection technology
- Enhanced tube-and-fin coil design featuring MHT™ Technology provides maximum heat transfer
- Factory tested for leak-proof construction
- Raised coil prevents debris from impeding airflow

DESIGN

- Designed to perform in temperatures up to 125°F
- Designed to perform in temperatures down to 0°F

COMPONENTS

- Factory installed crankcase heater
- Factory installed high and low pressure switches
- Thread-on pressure switches for simple, quick service
- Filter drier shipped loose for installation flexibility
- Fan orifice for smoother airflow and sound level reduction
- Charged for 15 feet of line set
- Discharge muffler for quiet operation
- Quiet Shift™ capable to reduce noise during defrost
- Demand defrost helps eliminate unnecessary defrost cycles
- Sealed Contactor with lugs

WARRANTY

- 5 year limited warranty on all parts and compressor
- Available 10 year warranty on all parts and compressor with registration*

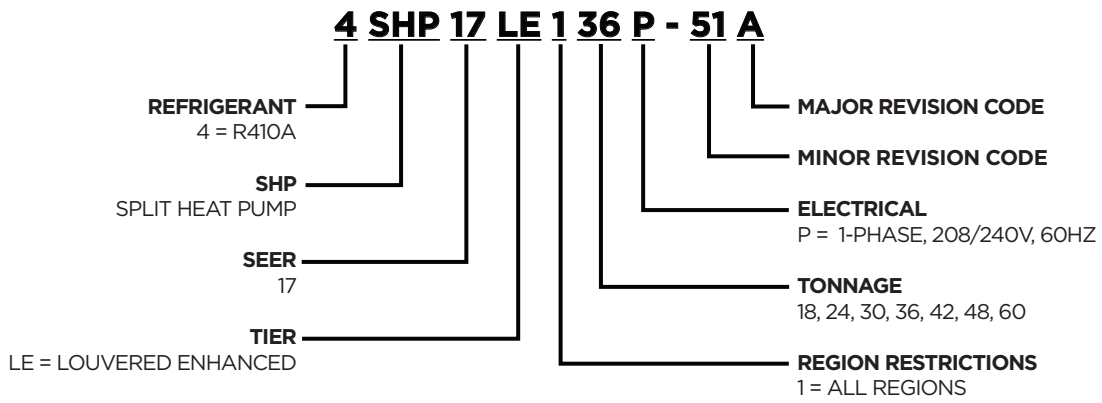
**Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty). Warranty must be registered online within 60 days of installation to qualify for 10-year coverage. Unregistered equipment defaults to 5-year coverage. See full warranty at www.alliedair.com for terms, conditions, and exclusions.*

NOTE:

For the latest AHRI system matches, please visit www.alliedratings.com or www.AHRIdirectory.org



MODEL NUMBER GUIDE



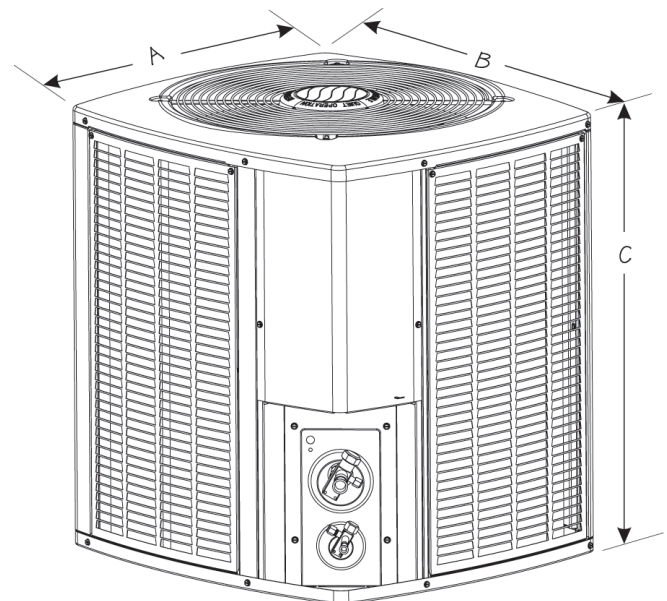
PHYSICAL AND ELECTRICAL DATA

| Model | Voltage/Hz/ Phase | Voltage Range | Min. Circuit Amp. | Max. Over Current Device (amps) | Compressor | | Outdoor Fan Motor | | |
|-----------------|----------------------|------------------|-------------------------|--|-------------------------|---------------------------|---------------------|-------------|-------------|
| | | | | | Rated Load (amps) | Locked Rotor (amps) | Full Load (amps) | Rated HP | Nom. RPM |
| 4SHP17LE118P-51 | 208-230/60/1 | 197-253 | 13.6 | 20 | 10.3 | 45.7 | 0.7 | 1/8 | 825 |
| 4SHP17LE124P-51 | 208-230/60/1 | 197-253 | 15.1 | 25 | 11.5 | 59.5 | 0.7 | 1/8 | 825 |
| 4SHP17LE130P-51 | 208-230/60/1 | 197-253 | 15.6 | 25 | 11.7 | 71.3 | 1.0 | 1/6 | 825 |
| 4SHP17LE136P-51 | 208-230/60/1 | 197-253 | 17.8 | 30 | 13.1 | 83.1 | 1.4 | 1/5 | 825 |
| 4SHP17LE142P-51 | 208-230/60/1 | 197-253 | 25.9 | 40 | 18.6 | 110.0 | 2.6 | 1/3 | 825 |
| 4SHP17LE148P-51 | 208-230/60/1 | 197-253 | 33.9 | 50 | 25.0 | 120.0 | 2.6 | 1/3 | 825 |
| 4SHP17LE160P-51 | 208-230/60/1 | 197-253 | 32.5 | 50 | 23.9 | 124.5 | 2.6 | 1/3 | 825 |

UNIT DIMENSIONS (IN.)

| Model | Dimensions (inch) | | | Shipping Weight (lbs.) |
|-----------------|-------------------|--------------|---------------|---------------------------|
| | A - Width | B - Depth | C - Height | |
| 4SHP17LE118P-51 | 29.38 | 31.25 | 43.75 | 203 |
| 4SHP17LE124P-51 | 29.38 | 31.25 | 43.75 | 203 |
| 4SHP17LE130P-51 | 29.38 | 31.25 | 33.25 | 205 |
| 4SHP17LE136P-51 | 35.75 | 37.75 | 33.25 | 230 |
| 4SHP17LE142P-51 | 35.75 | 37.75 | 37.75 | 284 |
| 4SHP17LE148P-51 | 35.75 | 37.75 | 37.75 | 284 |
| 4SHP17LE160P-51 | 35.75 | 37.75 | 43.75 | 298 |

Note:
Dimensions listed are unit sizes w/o packaging
Weights listed are unit weights with packaging



UNIT SOUND RATINGS

| Model | Sound Power ¹ | Estimated Sound Pressure (dBA) ² | | |
|-----------------|--------------------------|---|------------------------|------------------------|
| | | Approximate Distance ³ | | |
| | | 3.3 Feet (1 Meter) | 6.6 Feet (2 Meters) | 9.8 Feet (3 Meters) |
| 4SHP17LE118P-51 | 72 | 64 | 58 | 54 |
| 4SHP17LE124P-51 | 71 | 63 | 57 | 53 |
| 4SHP17LE130P-51 | 76 | 68 | 62 | 58 |
| 4SHP17LE136P-51 | 75 | 67 | 61 | 57 |
| 4SHP17LE142P-51 | 73 | 65 | 59 | 55 |
| 4SHP17LE148P-51 | 73 | 65 | 59 | 55 |
| 4SHP17LE160P-51 | 73 | 65 | 59 | 55 |

¹ Rated in accordance with AHRI standard 270 (2015)

² Rated in accordance with AHRI standard 275 (2010)

³ Based only on distance factor; other factors may change this value such as:

- Unit location (reflective surfaces adjacent to the unit)
- Barrier shielding sources
- Sound path/elevation
- Outside noise sources

REFRIGERATION DATA

| Model | Refrig. Charge (Oz.)* | TXV | Refrigerant Line Size | | Outdoor Unit Connection | | Indoor Unit Connection | |
|-----------------|--------------------------|---------|-----------------------|--------|-------------------------|--------|------------------------|--------|
| | | | Suction | Liquid | Suction | Liquid | Suction | Liquid |
| 4SHP17LE118P-51 | 98 | H4TXV01 | 3/4 | 3/8 | 3/4 | 3/8 | 3/4 | 3/8 |
| 4SHP17LE124P-51 | 96 | H4TXV01 | 3/4 | 3/8 | 3/4 | 3/8 | 3/4 | 3/8 |
| 4SHP17LE130P-51 | 117 | H4TXV01 | 3/4 | 3/8 | 3/4 | 3/8 | 3/4 | 3/8 |
| 4SHP17LE136P-51 | 137 | H4TXV02 | 7/8 | 3/8 | 7/8 | 3/8 | 7/8 | 3/8 |
| 4SHP17LE142P-51 | 162 | H4TXV02 | 7/8 | 3/8 | 7/8 | 3/8 | 7/8 | 3/8 |
| 4SHP17LE148P-51 | 146 | H4TXV02 | 7/8 | 3/8 | 7/8 | 3/8 | 7/8 | 3/8 |
| 4SHP17LE160P-51 | 164 | H4TXV03 | 1-1/8 | 3/8 | 1-1/8 | 3/8 | 1-1/8 | 3/8 |

* Factory charged for 15 feet of line set; adjust per installation instructions.

** Reducer fitting supplied with OD unit

COOLING PERFORMANCE WITH AIR HANDLERS AND FURNACES

| Outdoor Model | Indoor Model Evap. Coil or Air Handler ³ | Cooling | | | | | | Heating | | | | | |
|-----------------|---|---------|-------|------|------|--|----------------------|---------|-------|--------|------|--------|------|
| | | SEER | SEER2 | EER | EER2 | AHRI Rated Capacity ¹ | Sensible Capacity | HSPF | HSPF2 | 47° | | 17° | |
| | | | | | | | | | | Btuh | COP | Btuh | COP |
| 4SHP17LE118P-51 | BCE5C18M*4X | 15.5 | 15.2 | 13.0 | 13.0 | 18,000 | 14,400 | 9.2 | 8.0 | 17,900 | 3.80 | 11,200 | 2.54 |
| 4SHP17LE124P-51 | BCE5C24M*4X | 15.5 | 14.7 | 13.0 | 12.4 | 23,200 | 17,800 | 9.6 | 8.0 | 22,200 | 3.72 | 14,000 | 2.54 |
| 4SHP17LE130P-51 | BCE5C30M*4X | 15.0 | 14.4 | 12.2 | 12.0 | 28,400 | 22,400 | 9.2 | 8.0 | 27,800 | 3.56 | 18,000 | 2.52 |
| 4SHP17LE136P-51 | BCE5C36M*4X | 15.5 | 14.7 | 12.5 | 12.4 | 35,600 | 27,000 | 9.6 | 8.0 | 34,000 | 3.62 | 22,400 | 2.56 |
| 4SHP17LE142P-51 | BCE5C42M*4X | 15.0 | 14.4 | 12.2 | 12.0 | 40,500 | 30,800 | 9.2 | 7.8 | 39,000 | 3.40 | 25,000 | 2.46 |
| 4SHP17LE148P-51 | BCE5C48M*4X | 15.4 | 14.7 | 12.5 | 12.4 | 47,000 | 35,400 | 9.8 | 8.2 | 46,500 | 3.64 | 30,400 | 2.64 |
| 4SHP17LE160P-51 | BCE5C60M*4X | 15.1 | 14.3 | 12.5 | 11.7 | 56,500 | 41,500 | 9.6 | 8.0 | 54,000 | 3.50 | 35,000 | 2.56 |

Note:

¹ Certified in accordance with Unitary Air Conditioner Certification Program, which is based on AHRI Standard 210/240

² Required to achieve AHRI rating. If NA (not applicable) is in the piston column then TXV is required.

³ Blower time delay relay is standard on all Allied Air Enterprises furnace and AH products.

NOTE:

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www.alliedratings.com or www.AHRIdirectory.org

ACCESSORIES

| System Accessory | Where Used | Kit Number | Purpose |
|--|-------------------|------------------------|--|
| Liquid Line Solenoid | All models | 60M52 | Prevents liquid migration to the compressor especially for high liquid riser applications |
| Low Ambient (cooling operation) | All models | 54M89 | Enables cooling demand down to 30 °F. Will require freeze stat, CC heater and TXV |
| Mild Ambient (heating operation) | All models | 11B97 | Enables heating demand above 60 °F ambient |
| Cold Weather | All models | 1.921145 | To allow unit to operate at very low ambient conditions (older models). Board integrated feature on new models |
| Fossil Fuel Kit (Heat Pump Only) | All models | 1.841185 (AFOSL500) | Required for furnace with heat pump installations |
| Hard Start | 24 & 36 | 10J42 | Scroll compressors usually do not require hard start; maybe needed for utility brown-out or low voltage areas |
| | 48 & 60 | 81J69 | |
| Crankcase Heater | 18, 24, 30 | 93M04 | Prevents liquid migration to compressor in cold weather |
| | 36, 42, 48, 60 | Factory Installed | |
| Sound Cover | Factory Installed | | Lowers compressor sound level |
| Loss of Charge Kit | Factory Installed | | Protects the compressor if refrigerant charge is too low |
| Additional System Accessories (indoor section) | | | |
| TXV Kit | 18, 24, 30 | H4TXV01 | TXVs provide superior refrigerant flow control, comfort and efficiency compared to pistons |
| | 36, 42, 48 | H4TXV02 | |
| | 60 | H4TXV03 | |
| Outdoor Thermostat - Electric Heat | All models | 10Z23 (56A87) | Prevents electric heat operation above specific ambient conditions |
| Outdoor Thermostat - Mounting Box | All models | 31461 | Mounting box for outdoor thermostat |
| Freezestat | All models | 93G35 | Protects the compressor at low suction pressure conditions |
| Overflow Switch | All models | 11U75 | Turn the system off, if condensate water overflows due to clogged drain pipes |
| Single Point Power Supply | All models | 21H39 | Provide single power source in one junction box |
| Auxiliary Blower Relay | All models | 85W66 | Maybe required to select multiple indoor blower speeds |



1-800-448-5872

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