

QUICK REFERENCE DATA

*SH3QE4M Series Residential Split System Air Conditioner

14.3 SEER2

| MODEL NUMBER SH3QE4M | | 1RP24K | 1RP30K | 1SP36K | 1SP42K | 1SP48K |
|--|-----------|--------|--------|--------|--------|--------|
| REFRIGERANT SUCTION LINE O.D. NOTE: Liquid line is 3/8" O.D. | 0-24 Ft. | 3/4" | 3/4" | 3/4" | 7/8" | 7/8" |
| | 25-39 Ft. | 3/4" | 3/4" | 3/4" | 7/8" | 7/8" |
| | 40-75 Ft. | 3/4" | 3/4" | 7/8" | 7/8" | 7/8" |
| FACTORY R-410A REFRIGERANT CHARGE in ounces for outdoor unit, C84-X indoor & 15' Lineset. (3) | | 96 | 99 | 101 | 112 | 123 |

(1) Quick-Connect Line-Set Guidance:

- (a) When these units are connected with Nortek Approved, Pre-Charged Linesets, the total system charge has already been correctly configured and weighted into the components.
- (b) When approved line-sets are utilized, the installer need only verify the system operation per the OD unit charging chart and make minor adjustments. (Or with the online website: chargecalculator.com)
- (c) If the pre-charged line-sets become damaged or require field-repair, the refrigerant in the line-set must be recovered and evacuated. If the line-set is already connected to the equipment, the entire equipment charge requires recovery. Do not disconnect the line-set before the charge has been recovered. The Quick-Connect Fittings are one-time use only. They will not reseal.

(2) Always use good piping practices when configuring unit line-sets.

- (a) For longer line-sets or those with more than 10 feet of rise, refer to Nortek Document #044B, Application Guidelines for Refrigerant Lines.
- (b) Locate and anchor linesets per local codes, or at least every 42 inches for annealed (soft) tubing, and every 8 feet for drawn.
- (c) If brazing is required, always purge air from the piping and use nitrogen or another inert gas during brazing operations.
- (d) Always insulate the suction line between units.

(3) Additional Charge Per Foot Guidance:

For *SH3QE4M units, the instructions below are only provided for reference and equipment service after the initial installation.

- (a) Always calculate the ideal unit charge based on the actual piping length. Use equivalent length for unit capacity and line losses, plus SH/SC adjustments.
- (b) For these restrictor units, always weight-in slightly less charge then calculated, then finalize the unit charge by Superheat.
- (c) For configurations with the indoor unit located above the outdoor, always ensure that a sub-cooled liquid exists at the indoor unit.
- (d) Units using 1-1/8" suction lines may use 1/2" liquid lines. Requires 3/8" to 1/2" reducer from line to unit.

| OUNCES OF R-410A PER FOOT OF LINE-SET | | |
|---------------------------------------|-------------|-------------|
| ACR Suct. Size | 3/8" Liquid | 1/2" Liquid |
| 5/8 | 0.59 | - na - |
| 3/4 | 0.62 | - na - |
| 7/8 | 0.66 | 1.13 |
| 1 1/8 | 0.75 | 1.23 |

Table 1. Physical Data

Instructions:

- Find the column for the model of outdoor unit that is being installed.
- Find the row for the model of the indoor unit that is being installed.
- Find the cell in the table in which this row and column meet. In this cell the appropriate orifice / TXV and charge addition for this match are listed. If the text in this cell is BOLD, then a change of orifice is necessary.
- If a change in restrictor is necessary, then the appropriate restrictor will already be supplied with the outdoor unit.

Examples

- For the *SH3QE4M1SN36K/C84(D,Q)AMX36U-B unit match the appropriate TXV is 669566 and zero ounces of refrigerant needs to be added to the system when a 15 foot line-set is utilized. When the indoor unit is a C84Q model with quick connect fittings, and Nortek approved line-sets are utilized, no additional charge will need to be added to the unit prior to start-up, refer to Note (1) above for additional information.

THE CHARGE ADDITIONS PROVIDED IN THIS DOCUMENT ARE ESTIMATES BASED ON TEST DATA AND SHOULD ONLY BE A STARTING POINT. AFTER FOLLOWING THESE DIRECTIONS PLEASE ADJUST THE REFRIGERANT AMOUNT BASED ON THE APPROPRIATE CHARGING TABLES OR CHARTS IN THE INSTALLATION INSTRUCTIONS OR CHARGING LABEL.

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| MODEL NUMBER: *SH3QE4M | | 1RP24K | 1RP30K | 1SP36K | 1SP42K | 1SP48K |
|--------------------------------------|------------------|---|---------------------|----------------------|----------------------|----------------------|
| OD RESTRICTOR SUPPLIED WITH OD UNIT: | | 0.046 | 0.048 | 0.051 | 0.057 | 0.060 |
| OUTDOOR UNIT, FACTORY CHARGE (OZ.) | | 96 | 99 | 101 | 112 | 123 |
| MODELS | SUPPLIED WITH ID | REQUIRED RESTRICTOR OR TXV (CHARGE ADDITION (OZ) / RATED AIRFLOW - SCFM) | | | | |
| C84(D,Q)-X | | | | | | |
| C84(D,Q)AMX24U-B | 669564 | 669564 (0 / 840) | -- | -- | -- | -- |
| C84(D,Q)AMX30U-B | 669565 | -- | 669565 (0 / 980) | -- | -- | -- |
| C84(D,Q)AMX36U-B | 669566 | -- | -- | 669566 (0 / 1250) | -- | -- |
| C84(D,Q)AMX42U-B | 669567 | -- | -- | -- | -- | -- |
| C84(D,Q)AMX43U-B | 669567 | -- | -- | -- | 669567 (0 / 1225) | -- |
| C84(D,Q)AMX48U-B | 669568 | -- | -- | -- | -- | -- |
| C84(D,Q)AMX49U-B + E7 + Blower Kit | 669568 | -- | -- | -- | -- | 669568 (0 / 1550) |

NOTES:

‡ Requires **REMOVAL** of refrigerant from unit.

The charges listed are only valid for the standard 15' lineset. Calculate Additions for other lengths after making the adjustments noted in this table.

Restrictors are shown by the size indicated, TXV's are shown with part numbers. PN's typically begin with 669***.

Table 2. Restrictor or TXV / Charge Addition (Oz)