RGH150
SINGLE PACKAGE ROOFTOP
GAS HEATING, ELECTRIC COOLING
WITH R–410A REFRIGERANT

Electrical Data Supplement

NOTE: Read the entire instruction manual before starting the installation

This supplement only applies to RGH150 units when there is "B" in the 9th position of the Model Number, as shown in the Model Number Nomenclature diagram below. Check the Unit Nameplate (see Figs. 1 & 2). If there is not a "B" in the 9th position of the model number discard this document.

MODEL NOMENCLATURE

MODEL SERIES	R	G	H	1	5	0	H	F	B	A	0	A	A	A
Position Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14

R = Rooftop

A = Air Conditioning (Cooling Only)
H = Heat Pump
G = Gas/Electric — **Type**

H = High Efficiency ASHRAE 90.1–2010 — **Efficiency**

150 = 150,000 = 12.5 Tons (Two Compressors) — **Nominal Cooling Capacity**

H = 208/230–3–60
L = 460–3–60
S = 575–3–60 — **Voltage**

D = Low Heat
E = Medium Heat
F = High Heat — **Heating Capacity**

A = Standard Static Option – Belt Drive (6–12.5 Ton)
C = Medium Static Option (Belt Drive) (3–12.5 Ton, 3 Phase Only)
B = High Static Option (Belt Drive) (3–12.5 Ton, 3 Phase Only)
E = High Static Option with High Efficiency Motor (12.5 Ton Only) — **Motor Option**

A = None
B = Economizer w/Bara–relief, OA Temp sensor — **Outdoor Air Options / Control**

0A = No Options — **Factory Installed Options**

A = Aluminum / Cu Cond & Evap Coil — **Condenser / Evaporator Coil Configuration**

A = Standard — **Sales Digit**

SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock or other conditions which may cause personal injury or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory−authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses and work gloves. Use quenching cloths for brazing operations and have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions attached to the unit. Consult local building codes and appropriate national electrical codes (in USA, ANSI/NFPA70, National Electrical Code (NEC); in Canada, CSA C22.1) for special requirements.

It is important to recognize safety information. This is the safety−alert symbol ⚠. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION, and NOTE. These words are used with the safety−alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies hazards which **could** result in personal injury or death. CAUTION is used to identify unsafe practices, which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

⚠ CAUTION

ELECTRICAL HAZARD

Failure to follow this caution may result in personal injury or product and property damage.

The electrical data contained in this document is only for use with RGH150 which display a “B” in the 9th position of the 14 digit model number as displayed on the unit’s nameplate.

See Fig. 1 for location of the unit’s nameplate.

See Fig. 2 for details of the 14 digit model number.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could cause personal injury or death.

Before performing service or maintenance operations on unit, always turn off main power switch to unit and install lockout tag. Unit may have more than one power switch.

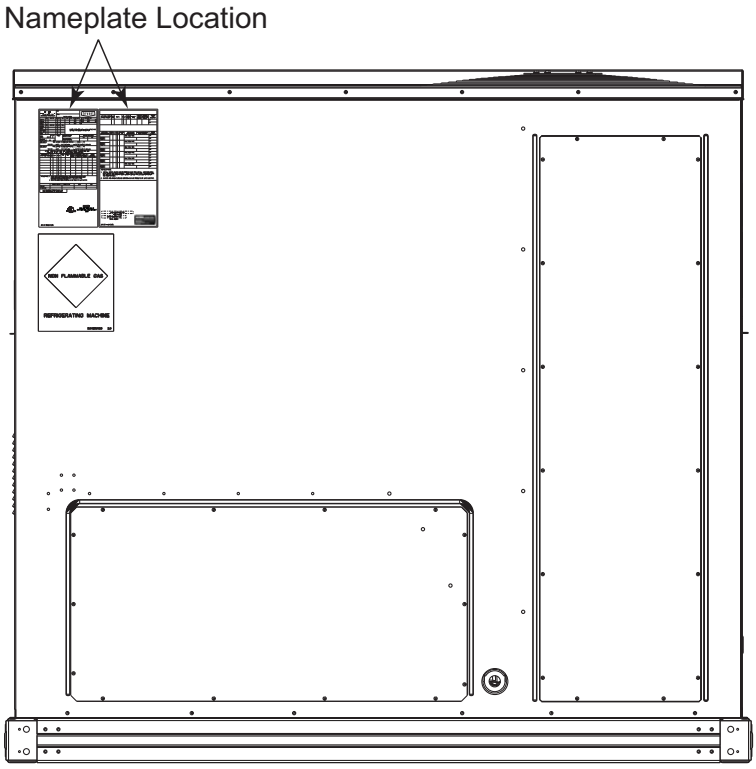

Fig. 1 – Location of Unit Nameplate

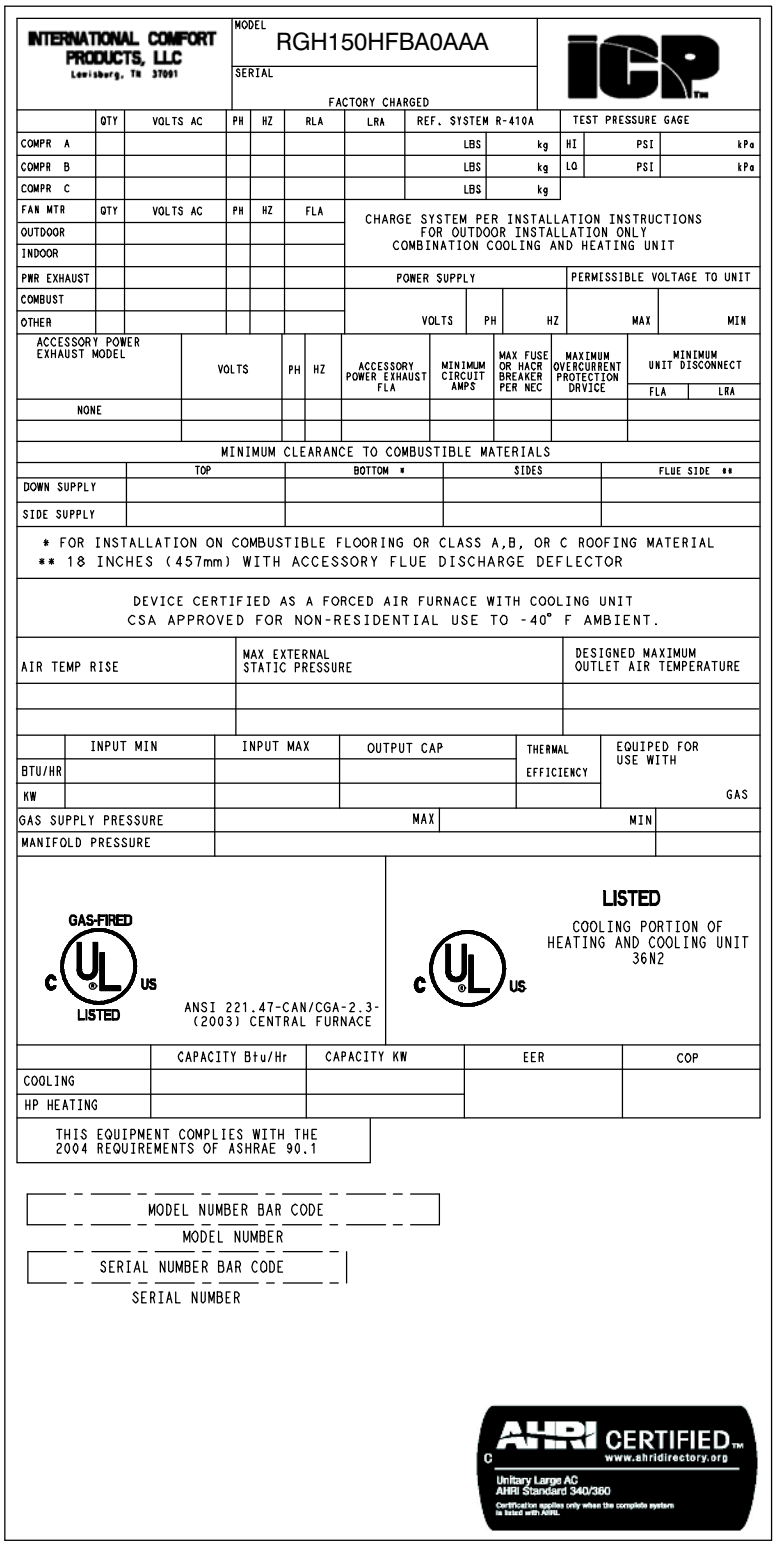

Fig. 2 – Example of Nameplate with Model Number

MODEL SERIES	R	G	H	1	5	0	H	F	B	A	0	A	A	A
Position Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Table 1 – Unit Wire/Fuse or HACR Breaker Sizing Data

UNIT	NOM. V–Ph–Hz	IFM TYPE	Combustion Fan Motor	Power Exhaust	NO C.O. or UNPWR C.O.							
					NO P.E.				w/ P.E. (pwrd fr/ unit)			
			FLA	FLA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA	DISC. SIZE LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA	DISC. SIZE LRA
RGH150	208/230–3–60	STD	0.48	3.8	54.8	60	58	314	58.6	70	62	318
		MED			57.3	70	60	331	61.1	80	65	335
		HIGH			64.0/62.5	80/80	68/66	342	67.8/66.3	80/80	72/71	346
	460–3–60	STD	0.25	1.8	27.6	35	29	158	29.4	35	31	160
		MED			28.6	35	30	167	30.4	40	32	169
		HIGH			31.8	40	34	172	33.6	40	36	174
	575–3–60	STD	0.24	3.8	21.6	25	23	128	25.4	30	27	132
		MED			21.6	25	23	128	25.4	30	27	132
		HIGH			24.9	30	26	131	28.7	35	31	135

Legend and Notes for Table 1

LEGEND:

BRKR – Circuit breaker
CO – Convenience outlet
DISC – Disconnect
FLA – Full load amps
IFM – Indoor fan motor
LRA – Locked rotor amps
MCA – Minimum circuit amps
PE – Power exhaust
UNPWR CO – Unpowered convenient outlet

NOTES:

1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.
2. **Unbalanced 3-Phase Supply Voltage**
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Example: Supply voltage is 230-3-60

AB = 224 v
BC = 231 v
AC = 226 v

$$\text{Average Voltage} = \frac{(224 + 231 + 226)}{3} = \frac{681}{3}$$

$$= 227$$

Determine maximum deviation from average voltage.
(AB) 227 – 224 = 3 v
(BC) 231 – 227 = 4 v
(AC) 227 – 226 = 1 v
Maximum deviation is 4 v.
Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{4}{227}$$

$$= 1.76\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.