

3 TO 8.5 TONS

RHS

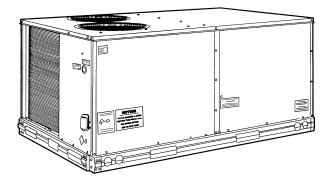
SUBJECT TO CHANGE WITHOUT NOTI CE

TYPE OF SALE: 6KSC 036-060 6KSD 072-102 MFG. POINT: Tyler, TX SHIPPING POINT: Lewisburg, TN





RHS units are high-efficiency single-packaged heat pump units that are pre-wired and pre-charged with R-410A (HCF) refrigerant. Electric heat is available as a field-installed accessory. The units are fully factory tested and agency certified.





## Certified to ISO 9001:2000







Sizes 036-0600

Sizes 0722-102

PC 111	FORM NO. RHS-1PPG
SUPERSEDES	New
PRICE SECTION	RHS (3 TO 8.5 TONS)

N/A

#### PERFORMANCE FEATURES

- R-410A HFC refrigerant
   ASHRAE compliant and Energy Star qualified
- ASHRAE compliant and Energy star qualified
   SEERs up to 13.4, EERs up to 11.2
- IPLV up to 12.4
- HSPF's up to 7.7 and COP's up to 3.3
- Single stage cooling capacity control on 036-0722 models
- Two-stage cooling capacity control on 090 & 102 models
- Exclusive non-corrosive composite condensate pan in accordance with ASHRAE 62 Standard, sloping design; side or center drain
- Convertible from vertical to horizontal airflow for slab mounting
- Copper tube aluminum fin coils with optional corrosion resistant coils
- Pre-painted exterior panels and primer coated interior panels tested to 500 hours salt spray protection
- Acutrol<sup>™</sup> refrigerant metering system
- Cooling operating range up to 115F (46C) and down to 25F (-4C)
- Solid-state control board and easy access terminal board
- Refrigerant filter drier and accumulator
- Fully insulated cabinet
- Automatic changeover when used with auto-changeover thermostat
- Rated in accordance with ARI Stds 240 (036-0600) and 340 (072-102)
- Designed in accordance with Underwriters' Laboratories Std 1995
- Listed by UL and UL, Canada

#### MAINTENANCE FEATURES

- Access panels with easy grip handles
- Innovative, easy starting, no strip screw features on unit access panels.
- Two-inch disposable return air filters
- Tool-less filter access door
- Belt drive evaporator-fan motor and pulley combinations available on all sizes to meet any application
- Direct Drive X13 (5 speed/torque) indoor motor on 036-0600 models
- New terminal board facilitating simple safety circuit troubleshooting and simplified control box arrangement

#### INSTALLATION FEATURES

- · Thru-the-bottom power entry capability standard
- Single point electric connections
- Full perimeter base rail with built-in rigging adapters & fork truck slots

#### **RELIABILITY FEATURES**

- Scroll compressors with internal linebreak overload protection
- Dependable Time / Temperature defrost board and logic
- · 24-volt control circuit protected with resettable circuit breaker
- Permanently lubricated evaporator-fan motor
- Totally enclosed condenser motors with permanently lubricated bearings
- Loss of charge, freeze protection, and high-pressure switches

#### STANDARD WARRANTY

- 5-year electric heaters
- 5-year compressor
- 1-year parts

### FACTORY OPTIONS INCLUDING BUT NOT LIMITED TO:

- 115-volt convenience outlet (Non-powered)
- Non-fused disconnect switch
- Economizer with db, enthalpy orCO2 control options
- Corrosion resistant coil options for evaporator and condenser
- Optional indoor fan motors for expanded airflow capability(3ph)
- Accessory electric heat (field-installed option only)
- Smoke detectors Supply Only





3 TO 8.5 TONS F.O.B. SHIPPING POINT

FREIGHT AS PER D.O.M.

RHS

Carrier Corporation • Syracuse, N.Y. 13221
SUBJECT TO CHANGE WITHOUT NOTICE

## MODEL NUMBER NOMENCLATURE

Position No.	1	2	3	4	5	6	7	8	9	10	11	12	13	Ĺ
Example:	R	Н	S	0	7	2	L	0	Α	В	0	Α	Α	
R = Package				<u> </u>										
H = Heat Pum	р	TYPE												
S = Standard ASHRAE 90.1	-2010 Eff	ic'y <b>EFF</b>	ICIENCY											
$\begin{array}{l} 036 = 35,400 \ \text{E} \\ 048 = 45,000 \ \text{E} \\ 060 = 59,000 \ \text{E} \\ 072 = 70,000 \ \text{E} \\ 090 = 88,000 \ \text{E} \\ 102 = 97,000 \ \text{E} \end{array}$	3TUH = 4 3TUH = 5 3TUH = 6 3TUH = 7.	Tons Tons tons 5 tons 2-	•	NOMINA CO <del>OLIN</del> CAPACI	G									
H = 208/230-3 K = 208/230-1 L = 460-3-60														
L = 400-3-60 S = 575-3-60						VC	LTAGE							
0 =No Heat			/ 000 000	•	Spec S			PACITY Capacity)						
X = Low Static A = Standard M B = HighStatic	Notor-Bely	/t Drive(	072-102)	• •		ΜΟΤΟ	R ( Indo	or Ean )						
A = None $B = Economize$ $E = Economize$ $H = Economize$ $L = Economize$ $P = 2-Position$	er w/Bara- er w/Bara- er w/Bara-	relief + C	O2 Senso thalpy ser	or, OA Te nsor		isor	ou	TDOOR	-		)			
0A = No Option 4B = Non-Fuse AT = Non-pow BR = Supply A 7C = Non-Fuse 7K = Non-Fuse 8A = Non-Fuse	ns ed Discon ered 115v ir Smoke ed Discon ed Discon	<sup>,</sup> C.O. Detector nect + No nect + No	n-Powere	ed 115v C		A Smoke			TORY	INSTAL Spec Sr	-			
A = Aluminum $B = Precoat Al$ $C = E-Coated$ $D = E-Coated$ $E = Cu / Cu Co$ $F = Copper/Co$	um/CU Co Alum/Cu ( Alum / Cu nd II Alum	ond II Alu Cond II Al Cond & I Ond & I	m / CU E lum / CU I Evap ap	Evap					(		OIL CO	EVAPOI NFIGUR	RATION	
	Packaging													1

NOTE: The example model number RHS072L0AB0AAA designates a 6 ton 460-3-60 volt electric cooling, accessory electric heating rooftop unit with standard coils and an EconoMi\$er IV controlled by OA Temperature.



## 3 TO 8.5 TONS

RHS

F.O.B. SHIPPING POINT FREIGHT AS PER D.O.M.

Carrier Corporation • Syracuse, N.Y. 13221 SUBJECT TO CHANGE WITHOUT NOTICE

	B	ASE UNIT MASTI	ER PRICES		
ORDERING NUMBER	VOLTAGE/ PHASE/Hz	HIGH HEAT OUTPUT (Btuh)	COOLING CAPACITY (Btuh)	APPROXIMATE SHIPPING WT. (lbs)	
RHS036K0XA0AAA	208/230-1-60	35,600	37,000	525	
RHS036H0XA0AAA	208/230-3-60	35,600	37,000	525	
RHS036L0XA0AA	460-3-60	35,600	37,000	525	
RHS048K0XA0AAA	208/230-1-60	45,500	47,000	530	
RHS048H0XA0AAA	208/230-3-60	45,500	47,000	530	
RHS048L0XA0AAA	460-3-60	45,500	47,000	530	
RHS048S0XA0AAA	575-3-60	45,500	47,000	530	
RHS060K0XA0AAA	208/230-1-60	58,000	61,500	610	
RHS060H0XA0AAA	208/230-3-60	58,000	61,500	610	
RHS060L0XA0AAA	460-3-60	58,000	61,500	610	
RHS060S0XA0AAA	575-3-60	58,000	61,500	610	
RHS072H0AA0AAA	208/230-3-60	67,000	70,000	650	
RHS072L0AA0AAA	460-3-60	67,000	70,000	650	
RHS072S0AA0AAA	575-3-60	67,000	70,000	650	
RHS090H0AA0AAA	208/230-3-60	86,000	88,000	910	
RHS090L0AA0AAA	460-3-60	86,000	88,000	910	
RHS090S0AA0AAA	575-3-60	86,000	88,000	910	
RHS102H0AA0AAA	208/230-3-60	96,000	99,000	935	
RHS102L0AA0AAA	460-3-60	96,000	99,000	935	
RHS102S0AA0AAA	575-3-60	96,000	99,000	935	

## NOTE: 036-060 Models Standard with Direct Drive - X13, 5-Speed/Torque Motor.

ALL of the above models comply with the minimum efficiency requirements as defined in the ASHRAE 90.1-20036 Energy Standard. To determine if compliance with this standard pertains to a given geographical area of the United States, check with local or state municipal building codes or visit the following Internet website: http:// bcap-energy.org.



## **POSITION 9 – INDOOR MOTOR OPTIONS**

RTU Model Number example:	R	н	S	0	7	2	L	0	Α	в	0	Α	Α	Α
Ordering Position Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14

9 <sup>th</sup> DIGIT	DESCRIPTION	VOLTAGE			MASTER F	PRICE ADDERS		
ORDER CODE			036	048	060	072	090	102
Х	Direct Drive X13 Motor	All	Std.	Std.	Std.	n/a	n/a	n/a
	Oten dend	208/230-1-60	n/a	n/a	n/a	n/a	n/a	n/a
А	Standard Static Option - Belt Drive	208/230-3-60 or 460-3-60	n/a	n/a	n/a	Std.	Std.	Std.
	- Dell Dilve	575-3-60	n/a	n/a	n/a	Std.	Std.	Std.
		208/230-1-60	n/a	n/a	n/a	n/a	n/a	n/a
В	High Static Option - Belt	208/230-3-60 or 460-3-60	Price add	Price add	Price add	Price add	Price add	Price add
	Drive	575-3-60	Price add	Price add	Price add	Price add	Price add	Price add

See page 10 for possible requirement for single point kit.

n/a -- Not available

## **POSITION 10 - OUTDOOR AIR OPTIONS**

Ordering Position Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14
RTU Model Number example:	R	H	S	0	7	2	L	0	Α	В	0	Α	Α	Α

10 <sup>th</sup> DIGIT ORDER	DESCRIPTION	MASTER P	RICE ADDER
CODE		036-072	090-102
А	None	Std.	Std.
В	Temperature Economizer w/ Barometric relief	Price add	Price add
Е	Temperature Economizer w/ Barometric relief and CO2 <sup>1</sup>	Price add	Price add
Н	Enthalpy Economizer w/ Barometric relief	Price add	Price add
L	Enthalpy Economizer w/ Barometric relief and CO2 <sup>1</sup>	Price add	Price add
Р	Motorized 2 pos damper	Price add	Price add

Future availability

- 1. EconoMi\$er IV (Vertical airflow only):
  - 100%+ barometric relief capability.
  - Gear-driven 3-position damper. Includes occupied/unoccupied minimum position and maximum position.
  - Direct-mount Belimo spring return actuator closes damper on power loss.
  - Dry bulb outdoor air control standard.
  - Enthalpy control available as an accessory.
  - Solid-state control module
  - OAT and SAT sensors factory installed

## POSITION 11 & 12 - FACTORY-INSTALLED OPTIONS

Ordering Position Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14
RTU Model Number example:	R	H	S	0	7	2	L	0	Α	В	0	Α	Α	Α

#### To determine the Option Ordering Code and place an order:

- 1. Select the desired combination of options from the table below. The 2-letter Ordering Code is listed to the left of the Option combination.
- 2. Enter the 2-letter Code as the 11th and 12th digits of the Base Unit Ordering Number.
- 3. To determine Master Price for FIOP unit, add price of option combination selected to master price of base unit.

#### FACTORY-INSTALLED OPTION DESCRIPTIONS

OPTION	DESCRIPTION	NOTES
2	Non-Fused Disconnect Switch	2
5	Un-powered Convenience Outlet	3
9	Supply Air Smoke Detector	

#### FACTORY-INSTALLED OPTION PRICES

ORDER	OPTIONS	MASTER PR	ICE ADDER
CODE		036-072	090 – 102
0A	None	Standard	Standard
4B	2	Price add	Price add
7C	2,5	Price add	Price add
7K	2,5,9	Price add	Price add
8A	2,9	Price add	Price add
AT	5	Price add	Price add
BR	5,9	Price add	Price add

- 2. Non-fused disconnect switch cannot be used when rooftop MOCP electrical rating exceeds 80 amps.
- 3. Un-powered convenience outlet requires separate field supplied 115-120v power source. Transformer is NOT included.

## **POSITION 13 - CORROSION RESISTANT COILS**

RTU Model Number example:	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ordering Position Number:	R	H	s	0	7	2	Г	0	Α	В	0	Α	Α	Α

	Environment							
<i>Enviro-Shield</i> ™ Description	Standard Non-Corrosive	Mild Coastal	Moderate Coastal	Severe Coastal	Industrial	Industrial & Coastal		
Alum Fin / Cu Tube	Х							
		Х						
Cu / Cu			Х					
E-Coated AI / Cu					Х	Х		
E-Coated Cu / Cu				Х				

13 <sup>th</sup>		MASTER PRICE ADDERS						
Digit Order Code	Condenser Coil (Fins/Tube)	Evaporator Coil (Fins/Tube)	036	048	060	072	090	102
А	Al/Cu	Al/Cu	Std.	Std.	Std.	Std.	Std.	Std.
В	Pre-	Al/Cu	Price add					
С	E-Coated	Al/Cu	Price add					
D	E-Coated	E-Coated	Price add					
E	Cu/Cu	Al/Cu	Price add					
F	Cu/Cu	Cu/Cu	Price add					

## **POSITION 14 – PACKAGING**

RTU Model Number example:	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ordering Position Number:	R	Н	S	0	7	2	L	0	Α	В	0	Α	Α	Α

14 <sup>™</sup> DIGIT		MASTER PR	MASTER PRICE ADDERS		
ORDER CODE	DESCRIPTION	036-072 09	090-102		
А	Standard	Std.	Std.		
В	LTL <sup>1</sup>	Future	Future		

## NOTES:

LTL Packaging Option includes full corrugated sleeve wrapped around perimeter of unit and full corrugated top cover.

## **RHS RTU ONLY - ELECTRIC HEATER SELECTION**

**ELECTRIC HEATERS** - Fully assembled for easy slide-in installation. Refer to charts below for wide range of UL-approved kWs per unit. Control two-stage and dual heaters with two-stage heating thermostat. Must use accessory single-point electrical connection package where listed.



Size	M. -Hz	IFM	Electric Heater	Nominal	Application	Single Point Kit Part Number
Unit Size	NOM. V-Ph-Hz	TYPE	Part Number	(KW)	(KW)	No Convenience Outlet or Unpowered Convenience Outlet
	208/230-1-60	Std - Elect Drive – X13 -	CRHEATER101A00 CRHEATER102A00 CRHEATER103B00 CRHEATER104B00 (2) CRHEATER105A00	4.4 6.5 8.7 10.5 13.0	3.3 / 4.0 4.9 / 5.8 6.5 / 8.0 7.9 / 9.6 9.8 / 11.6	CRSINGLE037A00 CRSINGLE040A00 CRSINGLE040A00 CRSINGLE040A00 CRSINGLE041A00
RHSA036	208/230-3-60	Std - Elect Drive – X13	CRHEATER101A00 CRHEATER102A00 CRHEATER103B00 CRHEATER104B00 CRHEATER105A00	4.4 6.5 8.7 10.5 16.0	3.3 / 4.0 4.9 / 5.8 6.5 / 8.0 7.9 / 9.6 12.0 / 14.7	- CRSINGLE037A00 CRSINGLE037A00 CRSINGLE038A00
RHS	208/23	MED/ HIGH Belt Drive	CRHEATER101A00 CRHEATER102A00 CRHEATER103B00 CRHEATER104B00 CRHEATER105A00	4.4 6.5 8.7 10.5 16.0	3.3 / 4.0 4.9 / 5.8 6.5 / 8.0 7.9 / 9.6 12.0 / 14.7	- 2 CRSINGLE037A00 CRSINGLE038A00
	460-3-60	STD – Elect Drive X13, MED/ HIGH – Belt Drive	CRHEATER106A00 CRHEATER107A00 CRHEATER108A00 CRHEATER109A00	6.0 8.8 11.5 14.0	5.5 8.1 10.6 12.9	- - - -
	208/230-1-60	Std - Elect Drive – X13	CRHEATER101A00 CRHEATER103B00 (2) CRHEATER102A00 (2) CRHEATER103B00 (2) CRHEATER104B00	4.4 8.7 13.0 17.4 21.0	3.3/4.0 6.5/8.0 9.8/11.9 13.1/16.0 15.8/19.3	CRSINGLE037A00 <sup>1</sup> CRSINGLE040A00 CRSINGLE041A00 CRSINGLE041A00 CRSINGLE041A00
RHSA048	208/230-3-60	Std - Elect Drive – X13	CRHEATER102A00 CRHEATER103B00 CRHEATER105A00 (2) CRHEATER104B00	6.5 8.7 16.0 21.0	4.9/6.0 6.5/8.0 12.0/14.7 15.8/19.3	- CRSINGLE037A00 CRSINGLE038A00 CRSINGLE039A00
RH	208/23	MED/ HIGH – Belt Drive	CRHEATER102A00 CRHEATER103B00 CRHEATER105A00 (2) CRHEATER104B00	6.5 8.7 16.0 21.0	4.9/6.0 6.5/8.0 12.0/14.7 15.8/19.3	CRSINGLE038A00 CRSINGLE039A00
	460-3-60	STD – Elect Drive X13, MED/ HIGH – Belt Drive	CRHEATER106A00 CRHEATER108A00 CRHEATER109A00 (2) CRHEATER108A00	6.0 11.5 14.0 23.0	5.5 10.6 12.9 21.1	- - CRSINGLE037A00

## GENERAL:

A. For those kWs where a single heater package is furnished, heaters are available in single stage. For those electric heater accessories with two heater packages, the opportunity exists for two-stage capability.

B. Non-fused disconnect switch cannot be used when rooftop electrical ratings exceed 80 amps.

- C. Only those heaters and combinations of heaters shown above are UL approved.
- 1. CRSINGLE0360A00 required with power exhaust

2. CRSINGLE037A00 required with power exhaust

3. CRSINGLE038A00 required with power exhaust

## **RHS RTU ONLY - ELECTRIC HEATER SELECTION (cont)**

**ELECTRIC HEATERS** - Fully assembled for easy slide-in installation. Refer to charts below for wide range of ULapproved kWs per unit. Control two-stage and dual heaters with two-stage heating thermostat. Must use accessory single-point electrical connection package where listed.



Size	M. -Hz	IFM	Electric Heater	Nominal	Application	Single Point Kit Part Number
Unit Size	NOM. V-Ph-Hz	TYPE	Part Number	(KW)	(KW)	No Convenience Outlet or Unpowered Convenience Outlet
	208/230-1-60	Std - Elect Drive – X13	CRHEATER102A00 CRHEATER103B00 (2) CRHEATER102A00 (2) CRHEATER103B00 (2) CRHEATER104B00	6.5 8.7 13.0 17.4 21.0	4.9/5.8 6.5/8.0 9.8/11.6 13.1/16.0 15.8/19.3	CRSINGLE040A00 CRSINGLE040A00 CRSINGLE041A00 CRSINGLE041A00 CRSINGLE041A00
		Std - Elect Drive – X13	CRHEATER102A00 CRHEATER104B00 CRHEATER105A00 (2) CRHEATER104B00 CRHEATER104B00,105A00	6.5 10.5 16.0 21.0 26.5	4.9/5.8 7.9/9.6 12.0/14.7 15.8/19.3 19.9/24.3	CRSINGLE038A00 CRSINGLE038A00 CRSINGLE039A00 CRSINGLE039A00
RHSA060	208/230-3-60	MED – Belt Drive	CRHEATER102A00 CRHEATER104B00 CRHEATER105A00 (2) CRHEATER104B00 CRHEATER104B00,105A00	6.5 10.5 16.0 21.0 26.5	4.9/5.8 7.9/9.6 12.0/14.7 15.8/19.3 19.9/24.3	- CRSINGLE037A00 CRSINGLE038A00 CRSINGLE039A00 CRSINGLE039A00
		HIGH – Belt Drive	CRHEATER102A00 CRHEATER104B00 CRHEATER105A00 (2) CRHEATER104B00 CRHEATER104B00,105A00	6.5 10.5 16.0 21.0 26.5	4.9/5.8 7.9/9.6 12.0/14.7 15.8/19.3 19.9/24.3	CRSINGLE038A00 CRSINGLE038A00- CRSINGLE039A00 CRSINGLE039A00
	460-3-60	STD – Elect Drive X13, MED/ HIGH – Belt Drive	CRHEATER106A00 CRHEATER108A00 CRHEATER109A00 (2) CRHEATER108A00 CRHEATER108A00,109A00	6.0 11.5 14.0 23.0 25.5	5.5 10.6 12.9 21.1 23.4	- - CRSINGLE037A00 CRSINGLE037A00
	0-3-60	STD – Belt Drive	CRHEATER102A00 CRHEATER104B00 CRHEATER105A00 (2) CRHEATER104B00 CRHEATER104B00,105A00	6.5 10.5 16.0 21.0 26.5	4.9/6.0 7.9/9.6 12.0/14.7 15.8/19.3 19.9/24.3	CRSINGLE038A00 CRSINGLE038A00 CRSINGLE039A00 CRSINGLE039A00
RHSA072	208/230-3-60	MED/ HIGH – Belt Drive	CRHEATER102A00 CRHEATER104B00 CRHEATER105A00 (2) CRHEATER104B00 CRHEATER104B00,105A00	6.5 10.5 16.0 21.0 26.5	4.9/6.0 7.9/9.6 12.0/14.7 15.8/19.3 19.9/24.3	CRSINGLE037A00 CRSINGLE038A00 CRSINGLE038A00 CRSINGLE039A00 CRSINGLE039A00
	460-3-60	STD/MED/ HIGH – Belt Drive	CRHEATER106A00 CRHEATER108A00 CRHEATER109A00 (2) CRHEATER108A00 CRHEATER108A00,109A00	6.0 11.5 14.0 23.0 25.5	5.5 10.6 12.9 21.1 23.4	- CRSINGLE037A00 CRSINGLE037A00

## GENERAL:

A. For those kWs where a single heater package is furnished, heaters are available in single stage. For those electric heater accessories with two heater packages, the opportunity exists for two-stage capability.

B. Non-fused disconnect switch cannot be used when rooftop electrical ratings exceed 80 amps.

- C. Only those heaters and combinations of heaters shown above are UL approved.
- <sup>2.</sup> CRSINGLE037A00 required with power exhaust

# **RHS** 3 TO 8.5 TONS

## **RHS RTU ONLY - ELECTRIC HEATER SELECTION (cont)**



**ELECTRIC HEATERS** - Fully assembled for easy slide-in installation. Refer to charts below for wide range of UL-approved kWs per unit. Control two-stage and dual heaters with two-stage heating thermostat. Must use accessory single-point electrical connection package where listed.

Unit Size	NOM. V-Ph-Hz	IFM Туре	Electric Heater Part Number	Nominal (KW)	Application (KW)	Single Point Kit Part Number No Convenience Outlet Or Unpowered Convenience Outlet
		STD – Belt Drive	CRHEATER117A00 CRHEATER110A00 CRHEATER111A00 CRHEATER112A00 CRHEATER112A00,117A00	10.4 16.0 24.8 32.0 42.4	7.8/9.6 12.0/14.7 18.6/22.8 24.0/29.4 31.8/38.9	CRSINGLE049A00 CRSINGLE049A00 CRSINGLE051A00 CRSINGLE051A00 CRSINGLE053A00
	2090/230-3-60	MED – Belt Drive	CRHEATER117A00 CRHEATER110A00 CRHEATER111A00 CRHEATER112A00 CRHEATER112A00,117A00	10.4 16.0 24.8 32.0 42.4	7.8/9.6 12.0/14.7 18.6/22.8 24.0/29.4 31.8/38.9	CRSINGLE049A00 CRSINGLE049A00 CRSINGLE051A00 CRSINGLE051A00 CRSINGLE053A00
	5	HIGH – Belt Drive	CRHEATER117A00 CRHEATER110A00 CRHEATER111A00 CRHEATER112A00 CRHEATER112A00,117A00	10.4 16.0 24.8 32.0 42.4	7.8/9.6 12.0/14.7 18.6/22.8 24.0/29.4 31.8/38.9	CRSINGLE049A00 CRSINGLE049A00 CRSINGLE051A00 CRSINGLE051A00 CRSINGLE053A00
RHSD090		STD – Belt Drive	CRHEATER116A00 CRHEATER113A00 CRHEATER114A00 CRHEATER115A00 CRHEATER114A00,116A00	13.9 16.5 27.8 33.0 41.7	12.8 15.2 25.5 30.3 38.3	CRSINGLE047A00 CRSINGLE047A00 CRSINGLE047A00 <sup>1</sup> CRSINGLE050A00 CRSINGLE052A00
	460-3-60	MED – Belt Drive	CRHEATER116A00 CRHEATER113A00 CRHEATER114A00 CRHEATER115A00 CRHEATER114A00,116A00	13.9 16.5 27.8 33.0 41.7	12.8 15.2 25.5 30.3 38.3	CRSINGLE047A00 CRSINGLE047A00 CRSINGLE050A00 CRSINGLE050A00 CRSINGLE052A00
		HIGH – Belt Drive	CRHEATER116A00 CRHEATER113A00 CRHEATER114A00 CRHEATER115A00 CRHEATER114A00,116A00	13.9 16.5 27.8 33.0 41.7	12.8 15.2 25.5 30.3 38.3	CRSINGLE047A00 CRSINGLE047A00 CRSINGLE050A00 CRSINGLE050A00 CRSINGLE052A00
	575-3-60	STD/MED – Belt Drive	CRHEATER118A00 CRHEATER119A00	17.0 34.0	17.0 34.0	CRSINGLE047A00 CRSINGLE050A00
	575	HIGH – Belt Drive	CRHEATER118A00 CRHEATER119A00	17.0 34.0	17.0 34.0	CRSINGLE047A00 CRSINGLE050A00

A. For those kWs where a single heater package is furnished, heaters are available in single stage. For those electric heater accessories with two heater packages, the opportunity exists for two-stage capability.

B. Non-fused disconnect switch cannot be used when rooftop electrical ratings exceed 80 amps.

C. Only those heaters and combinations of heaters shown above are UL approved.

<sup>1</sup> CRSINGLE0480A00 required with Power Exhaust

## **RHS RTU ONLY - ELECTRIC HEATER SELECTION (cont)**

**ELECTRIC HEATERS** - Fully assembled for easy slide-in installation. Refer to charts below for wide range of UL-approved kWs per unit. Control two-stage and dual heaters with two-stage heating thermostat. Must use accessory single-point electrical connection package where listed.

Unit Size	NOM. V-Ph-Hz	IFM Type	Electric Heater Part Number	Nominal (KW)	Application (KW)	Single Point Kit Part Number No Convenience Outlet Or Unpowered Convenience Outlet
	2090/203-3-60	STD/MED – Belt Drive	CRHEATER117A00 CRHEATER110A00 CRHEATER111A00 CRHEATER112A00 CRHEATER112A00,117A00	10.4 16.0 24.8 32.0 42.4	7.8/9.6 12.0/14.7 18.6/22.8 24.0/29.4 31.8/38.9	CRSINGLE049A00 CRSINGLE049A00 CRSINGLE051A00 CRSINGLE051A00 CRSINGLE053A00
	2090/20	HIGH – Belt Drive	CRHEATER117A00 CRHEATER110A00 CRHEATER111A00 CRHEATER112A00 CRHEATER112A00,117A00	10.4 16.0 24.8 32.0 42.4	7.8/9.6 12.0/14.7 18.6/22.8 24.0/29.4 31.8/38.9	CRSINGLE049A00 CRSINGLE049A00 CRSINGLE051A00 CRSINGLE051A00 CRSINGLE053A00
RHS102	460-3-60	STD/MED – Belt Drive	CRHEATER116A00 CRHEATER113A00 CRHEATER114A00 CRHEATER115A00 CRHEATER114A00,116A00	13.9 16.5 27.8 33.0 41.7	12.8 15.2 25.5 30.3 38.3	CRSINGLE047A00 CRSINGLE047A00 CRSINGLE050A00 CRSINGLE050A00 CRSINGLE052A00
	460-	HIGH – Belt Drive	CRHEATER116A00 CRHEATER113A00 CRHEATER114A00 CRHEATER115A00 CRHEATER114A00,116A00	13.9 16.5 27.8 33.0 41.7	12.8 15.2 25.5 30.3 38.3	CRSINGLE047A00 CRSINGLE047A00 CRSINGLE050A00 CRSINGLE050A00 CRSINGLE052A00
	575-3-60	STD/MED/ HIGH	CRHEATER118A00 CRHEATER119A00	17.0 34.0	17.0 34.0	CRSINGLE047A00 CRSINGLE050A00

## GENERAL:

A. For those kWs where a single heater package is furnished, heaters are available in single stage. For those electric heater accessories with two heater packages, the opportunity exists for two-stage capability.

B. Non-fused disconnect switch cannot be used when rooftop electrical ratings exceed 80 amps.

C. Only those heaters and combinations of heaters shown above are UL approved.



**RHS** 3 TO 8.5 TONS

## FIELD-INSTALLED ACCESSORIES (cont)

## ELECTRIC HEATERS

(See selection on pages 7-10)

REQUIRED HEATER ORDER NUMBER(S)	MASTER PRICE
CRHEATER101A00	Price add
CRHEATER102A00	Price add
CRHEATER103B00	Price add
CRHEATER104B00	Price add
CRHEATER105A00	Price add
CRHEATER106A00	Price add
CRHEATER107A00	Price add
CRHEATER108A00	Price add
CRHEATER109A00	Price add
CRHEATER110A00	Price add
CRHEATER111A00	Price add
CRHEATER112A00	Price add
CRHEATER113A00	Price add
CRHEATER114A00	Price add
CRHEATER115A00	Price add
CRHEATER116A00	Price add
CRHEATER117A00	Price add
CRHEATER118A00	Price add
CRHEATER119A00	Price add

#### SINGLE-POINT KITS (See selection on pages 7-10)

ORDER NUMBER	MASTER PRICE
CRSINGLE037A00	Price add
CRSINGLE038A00	Price add
CRSINGLE039A00	Price add
CRSINGLE040A00	Price add
CRSINGLE041A00	Price add
CRSINGLE042A00	Price add
CRSINGLE043A00	Price add
CRSINGLE044A00	Price add
CRSINGLE045A00	Price add
CRSINGLE047A00	Price add
CRSINGLE049A00	Price add
CRSINGLE050A00	Price add
CRSINGLE051A00	Price add
CRSINGLE052A00	Price add
CRSINGLE053A00	Price add



## ECONOMI\$ER IV (CONTROLLER INCLUDED)

#### VERTICAL

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	APPROX SHIP WT (Lbs)	MASTER PRICE
DNECOMZR020A02 <sup>1</sup>	Vertical EconoMi\$er IV with solid-state controller, gear-driven, 3-position modulating damper, spring return actuator, up to 100% barometric relief, supply and outdoor air sensors, and CO2 sensor compatible, for use in non-DDC applications.	036-072	55	Price add
DNECOMZR021A03 <sup>1</sup>	Vertical EconoMi\$er IV with solid-state controller, gear-driven, 3-position modulating damper, spring return actuator, up to 100% barometric relief, supply and outdoor air sensors, and CO2 sensor compatible, for use in non-DDC applications.	090-102	80	Price add

## NOTE:

EconoMi\$er IV, Manual Damper and 2-Pos Motorized Damper are all mutually exclusive and cannot be installed together.

#### HORIZONTAL

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	APPROX SHIP WT (Lbs)	MASTER PRICE
DNECOMZR024A02 <sup>1</sup>	Horizontal EconoMi\$er IV with solid-state controller, gear- driven, 3-position modulating damper, spring return actuator, up to 100% barometric relief, supply and outdoor air sensors, and CO2 sensor compatible, for use in non-DDC applications.	036-072	85	Price add
DNECOMZR025A02 <sup>1</sup>	Horizontal EconoMi\$er IV with solid-state controller, gear- driven, 3-position modulating damper, spring return actuator, up to 100% barometric relief, supply and outdoor air sensors, and CO2 sensor compatible, for use in non-DDC applications.	090-102	105	Price add

## NOTE:

<sup>1</sup> EconoMi\$er IV, Manual Damper and Motorized Damper are all mutually exclusive and cannot be installed together.



## ECONOMIZER SENSORS

## ECONOMIZER SENSOR USAGE CHART

DESIRED CONTROL		ECONOMI\$ER IV <sup>1</sup>	
METHO		REQUIRED FIELD-INSTALLED SENSOR(S)	
Single Dry Contro		None. Outside Air dry bulb sensor is factory installed.	
Differential Dry Bulb Control		(1) DNTEMPSN002A00	
Single Enthalpy Control		(1 AXB078ENT	
Differential Enthalpy Control		(1) AXB078ENT & (1) DNENTDIF004A00	
To Add CO <sub>2</sub> DCV Control with above:	DCV Duct Control with Mount (1) DNCBDIOX005A00		

## NOTES: 1. OAT and SAT sensors included for EconoMi\$er IV.

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	MASTER PRICE
DNTEMPSN002A00	Outdoor or Return Dry Bulb Temperature Sensor used with Electro- Mechanical control.	EconoMi\$er IV	Price add
DNCBDIOX005A00	CO2 Sensor for use in return airstream. Also includes Aspirator Box required for Duct Mounting.	EconoMi\$er IV	Price add
AXB078ENT	Accusensor II Economizer Differential Enthalpy Control Upgrade	EconoMi\$er IV	Price add
DNENTDIF004A00	Return Air Enthalpy Sensor used with Electro-Mechanical controls, use with AXB078ENT for differential enthalpy control.	EconoMi\$er IV	Price add



## POWER EXHAUST OPTIONS

## VERTICAL<sup>1</sup>

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	MASTER PRICE		
DNPWREXH030A01	Power Exhaust System (208/230-1-60)	036-072 208/230-1-60 208/230-3-60	Price add		
DNPWREXH021A01	Power Exhaust System (460-3-60)	036-072 460-3-60	Price add		
DNPWREXH022A01	Power Exhaust System (208/230-1-60)	090-102 208/230-3-60	Price add		
DNPWREXH023A01	Power Exhaust System (460-3-60)	090-102 460-3-60	Price add		

NOTES:

<sup>1</sup> Vertical Power Exhaust requires a vertical Economizer

<sup>2</sup> Vertical Power Exhaust package includes exhaust hood, screens, and propeller fan system

## HORIZONTAL

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	MASTER PRICE
DNPWREXH028A01	Horizontal Power Exhaust (208/230-1-60) - Mounted on Return Ductwork	All 208/230-1-60 208/230-3-60 575-3-60	Price add
DNPWREXH029A01	Horizontal Power Exhaust (460-3-60) - Mounted on Return Ductwork	All 460-3-60	Price add

NOTES:

Horizontal Power Exhaust should be duct-mounted in the return duct

<sup>2</sup> Horizontal Power Exhaust package includes exhaust hood, screens, and propeller fan system

## **575V TRANSFORMER**

ODS ORDERING NUMBER / FAST #	DESCRIPTION	APPLICATION USAGE	MASTER PRICE
HT01AH-859 / 1171494	Transformer for conversion from 575 volt to 208/230 volt power exhaust applications.	Convert from 575 Volt to 208- 230 Volt Power Exhaust applications.	333

- 1. Vertical power exhaust package includes exhaust hood, screens and propeller fan system.
- 2. 24" Roof curbs are NOT required with vertical power exhaust.
- 3. Horizontal power exhaust should be duct-mounted in the return ductwork and is supplied with a single fan and wiring harness.
- 4. Both vertical and horizontal power exhaust packages can be used with either EconoMi\$er IV. In either case, the power exhaust is controlled by the EconoMi\$er IV controller.
- 5. Order --HT--01AH-859 / FAST# 1171494 for 575V applications.



## **OUTDOOR AIR DAMPER OPTIONS**

### MANUAL OUTDOOR AIR DAMPERS

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	MASTER PRICE
DNMANDPR001A03	25% Open Manual Outdoor Air Damper Package	036-072 <sup>1</sup>	Price add
CRMANDPR001A02	50% Open Manual Outdoor Air Damper Package	036-072 <sup>1</sup>	Price add
DNMANDPR002A03	25% Open Manual Outdoor Air Damper Package	090-102 <sup>1</sup>	Price add
CRMANDPR002A02	50% Open Manual Outdoor Air Damper Package	090-102 <sup>1</sup>	Price add

<sup>1</sup> EconoMi\$er IV, Manual Damper and Motorized Damper are all mutually exclusive and cannot be installed together.

#### MOTORIZED OUTDOOR AIR DAMPERS

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	MASTER PRICE
CRTWOPOS010A00	Motorized 2-position outdoor air damper (25-100% Outdoor Air)	036-072 <sup>1</sup>	Price add
CRTWOPOS011A00	Motorized 2-position outdoor air damper	090-102 <sup>1</sup>	Price add

<sup>1</sup> EconoMi\$er IV, Manual Damper and Motorized Damper are all mutually exclusive and cannot be installed together.

- 1. Manual dampers include hood assembly, bird screen, adjustable damper blade (to allow up to the rated outdoor air %), and bottom panel with opening.
- 2. Motorized dampers include bottom panel with opening (100% two-position damper includes 30% barometric relief capability), and adjustable damper (to allow up to the rated outdoor air %).
- 3. Motorized dampers will close on loss of power to the rooftop unit.
- 4. Manual and Motorized dampers are not compatible with a vertical power exhaust module.



## **ROOF CURB OPTIONS**

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	MASTER PRICE
CRRFCURB001A01	14-inch Tall Roof Curb. Complies with NRCA standards. Ductwork attaches to the roof curb. Includes thru-the-bottom capability.	036-072	Price add
CRRFCURB003A01	14-inch Tall Roof Curb. Complies with NRCA standards. Ductwork attaches to the roof curb. Includes thru-the-bottom capability.	090-102	Price add
CRRFCURB002A01	24-inch Tall Roof Curb. Complies with NRCA standards. Ductwork attaches to the roof curb. Includes thru-the-bottom capability.	036-072	Price add
CRRFCURB004A01	24-inch Tall Roof Curb. Complies with NRCA standards. Ductwork attaches to the roof curb. Includes thru-the-bottom capability.	090-102	Price add

## THRU-THE-BOTTOM CONNECTION KITS

ODS ORDERING NUMBER	DESCRIPTION	APPLICATION USAGE	MASTER PRICE
CRBTMPWR001A01	Thru-the-bottom electrical connections and thru-the-curb (not thru the bottom) gas connections. Includes a 3/4-inch diameter liquid tight conduit fitting for high voltage power wires and (2) 1/2-inch diameter liquid tight conduit fittings for thermostat wires and convenience outlet wires. Includes a 3/4-inch inside pipe coupling and gas plate assembly for thru-the-curb connections. Provides for watertight seals.	036-072	Price add
CRBTMPWR002A01	Thru-the-bottom electrical connections and thru-the-curb (not thru the bottom) gas connections. Includes a 1-1/4-inch diameter liquid tight conduit fitting for high voltage power wires and (2) 1/2-inch diameter liquid tight conduit fittings for thermostat wires and convenience outlet wires. Includes a 3/4-inch inside pipe coupling and gas plate assembly for thru-the-curb connections. Provides for watertight seals.	090-102	Price add
CRBTMPWR003A01	Thru-the bottom power, control and gas connections. Includes a 3/4-inch diameter liquid tight conduit fitting for high voltage power wires, (2) 1/2-inch diameter liquid tight conduits for thermostat wires and convenience outlet wires and 1/2-inch gas adapter fitting for gas piping. Provides for watertight seal.	036-072	Price add
CRBTMPWR004A01	Thru-the bottom power, control and gas connections. Includes a 1-1/4-inch diameter liquid tight conduit fitting for high voltage power wires, (2) 1/2-inch diameter liquid tight conduits for thermostat wires and convenience outlet wires and 3/4-inch gas adapter fitting for gas piping. Provides for watertight seal.	090-102	Price add

**NOTE:** Access to the bottom of the RTU is **required** to install a THRU-THE-BOTTOM Connection Kit. Recommend installing kit **prior** to installing RTU on roof curb.

## CONTROL UPGRADE KITS

ODS ORDERING NUMBER / FAST #	DESCRIPTION	APPLICATION USAGE	MASTER PRICE
DNSTATUS001A00	Fan/Filter Status Switch - Indicator light not included	All Sizes	Price add
DNTIMEGD001A00	Time Guard II Automatically prevents the compressor from restarting for at least 4 minutes and 45 seconds after shutdown of the compressor. Not required when a corporate programmable thermostat is applied or the commercial thermostat has a minimum 5 min time delay between cooling cycles available	All Sizes (1 required)	Price add
DNPHASE3001A02	Phase Monitor Control - Provides phase loss/phase reversal protection	All 3-Ph 208-230 & 460v	Price add
KA99ZT-003 / 1178184	Remote keyed attenuator / test / reset station for use with factory installed smoke detectors. Includes power, alarm & trouble indicator lights.	All	Price add



## FIELD INSTALLED ACCESSORIES LOW AMBIENT CONTROLS

## Table 5 - Single Phase Unit Capacitor

r	Motormaster I U	sage and Parts <sup>-</sup>	Table 5 - Single Phase Unit Capacitor Replacement				
				MOTORMASTER I		DUAL	FAST / RCD Part
UNITS	VOLTAGE	MOTOR	CAPACITOR	CONTROLLER		MFD*	#
	208/230-1-60	HC40GE233 FAST# 1171974	See table 5	32LT900301	RHS048K	70 + 10	HC98JA073 FAST#1177750
	208/230-3-60 575-3-60*	HC40GE233 FAST# 1171974	Replace with HC91CL010 / FAST# 1171807	32LT900301	RHS060K	80 + 10	HC98JA083 FAST#1173703
RHS036-060	460-3-60	HC40GE463 FAST# 1171975	Replace with HC91CL010 / FAST# 1171807	32LT900611	*Compressor shares capacitor with the OD motor, the first number is for compressors and the second number is for OD motor		
	208/230-3-60	HC40GE233 FAST# 1171974	Keep Factory Installed	32LT900301			
RHS072	460-3-60	HC40GE463 FAST# 1171975	Replace with HC91CL010 / FAST# 1171807	32LT900611			
	575-3-60*	HC40GE233 FAST# 1171974	Replace with HC91CL010 / FAST# 1171807	32LT900301			
RHS090-102 (Single	208/230-3-60 575-3-60**	(2) HC40GE233 FAST# 1171974	Replace with HC93CA013/ FAST# 1175708	32LT900301			
Compressor Units)	460-3-60	(2) HC40GE463 FAST# 1171975	Replace with HC93CA013/ FAST# 1175708	32LT900611			

The Capacitor Straps in the unit can be reused. If needed part numbers are as follows:

HC91CL005, FAST# & HC91CL010, FAST#1171807 use HC98ZY071, FAST# FAST#1175708 uses 50DK507522 , FAST#

\*Transformer HT01AH856, FAST#

are recommended.

(0.75kva, 575v to 230v) and transformer bracket 50DK502263, FAST#

\*\*Transformer HT01AH859 , FAST# are recommended.

(1kva, 575v to 230v) and transformer bracket 50DK502263, FAST#

and HC93CA013,



## LOW AMBIENT CONTROLS

PART NO.	DESCRIPTION	USED WITH	MASTER PRICE
AXB035LAA s/a CPLOWAMB001A00	MotorMaster® II Low Ambient Control - Enables cooling system to operate down to 0° F by cycling condenser fan on and off. The control is activated by a temperature sensor. No motor change-out required.	208/230-1 208/230-3 460-3-60 All Sizes	Price add
32LT-900301 FAST#	Motormaster I Single-Phase Solid-State Variable Speed Motor Controller enables cooling down to -20° F by varying the speed on the condenser fan.	Refer to MotorMaster I	Price add
32LT-900611 FAST#	MotorMaster I Single-Phase Solid-State Variable Speed Motor Controller enables cooling down to -20° F by varying the speed on the condenser fan.	Usage Table	Price add
HC40GE233 FAST# 1171974	MotorMaster I Compatible Condenser Fan Motor		Price add
HC40GE463 FAST# 1171975	MotorMaster I Compatible Condenser Fan Motor		Price add
HC91CL010 FAST#	MFD 10		Price add
HC93CA013 FAST#	Dual MFD 10 + 10	Refer to MotorMaster I Usage Table	Price add
HC98JA048 FAST#	Dual MFD 45 + 10		Price add
HC98JA073 FAST#	Dual MFD 70 + 10		Price add
HC98JA083 FAST#	Dual MFD 80 + 10		Price add

NOTES:

\* FAST List Price - Subject to change on a quarterly basis and should be verified with FAST parts prior to quoting.

• Sizes 036-072 require one (1) Low Ambient Controller and one (1) compatible condenser fan motor for change out. Sizes 090-102 require one (1) Low Ambient Controller and one (2) compatible condenser fan motor for change out.