



**CARRIER CHAS12  
VERTICAL  
ECONOMIZERS  
I/O/M MANUAL**

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**For information on iAIRE’s Economizer Controls Package,  
please refer to IOM-0014**

## Carrier Economizer Description

**PLEASE NOTE:** Our economizer is a low leak, field installed economizer with the iAIRE patented controls packages and actuator, allowing you to reduce the amount of outside air needed from your rooftop HVAC system by up to 2/3 and will improve indoor air quality.

This reduction in system operation creates on-going utility savings. Payback on capital equipment costs with an iAIRE economizer can be realized in fewer than three years. These packages are designed to work directly on existing rooftop HVAC systems.

These economizers are all low leak and meet the IECC 2015 requirement and are Title 24 compliant by meeting section 120.2(i) for the required controls and the efficiency requirements in 140.4(e).

CHAS to RTU Conversion			
CHAS12	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>CHAS1:</b>                      48/50FC 04-05; 50TCQ 04-05;                      48/50GC 04-05, LC 04; 50HCQ 04;                      48/50 TF, TM 004-007; 48TJ 004-007;                      48HJ 004-006; 50TJ 004-006;                      50HJ, HJQ 004-006                 </td> <td style="width: 50%; vertical-align: top;"> <b>CHAS2:</b>                      48/50TC 07 FC06-07; 50TCQ 06-07;                      48/50GC06, LC 05-06; 50HCQ05-06;                      50HCQ 05-06; 48HJ 007; 50TJ 007                 </td> </tr> </table>	<b>CHAS1:</b> 48/50FC 04-05; 50TCQ 04-05; 48/50GC 04-05, LC 04; 50HCQ 04; 48/50 TF, TM 004-007; 48TJ 004-007; 48HJ 004-006; 50TJ 004-006; 50HJ, HJQ 004-006	<b>CHAS2:</b> 48/50TC 07 FC06-07; 50TCQ 06-07; 48/50GC06, LC 05-06; 50HCQ05-06; 50HCQ 05-06; 48HJ 007; 50TJ 007
<b>CHAS1:</b> 48/50FC 04-05; 50TCQ 04-05; 48/50GC 04-05, LC 04; 50HCQ 04; 48/50 TF, TM 004-007; 48TJ 004-007; 48HJ 004-006; 50TJ 004-006; 50HJ, HJQ 004-006	<b>CHAS2:</b> 48/50TC 07 FC06-07; 50TCQ 06-07; 48/50GC06, LC 05-06; 50HCQ05-06; 50HCQ 05-06; 48HJ 007; 50TJ 007		

## Part Number

EC - 1 - 2 3 4 5 - 6

type	unit/ton (1)							
EC - ECONOMIZER	26	6075	CHAS12	A-BOX	FND35	PREC810	AFF	SCL34
	712	100	CHAS34	B-BOX	PACK13	VOY12	LXS	SCLHE12
	1525	125	CHAS5	C-BOX	PREC35	VOY12HE	LXL	SCLHE34
	3050	150	CHAS69	D-BOX	PREC48	VOY1525HE	SCS12	PRED
	Controls Only		Carrier	E-BOX	PREC610		SCS34	PREDS
				F-BOX		Trane	SCSHE12	SL
				Lennox			SCSHE34	SLL
							SCL12	SLU
							York	

configuration (2)
0 - NO ECON C - CONVERTIBLE H - HORIZONTAL V - VERTICAL

actuator (3)
0 - NO ACTUATOR A - 20 IN-LB B - 62 IN-LB C - 160 IN-LB

controls (4)
0 - ECON ONLY A - IAQ B - IAQ (NO IONIZATION) D - DCV

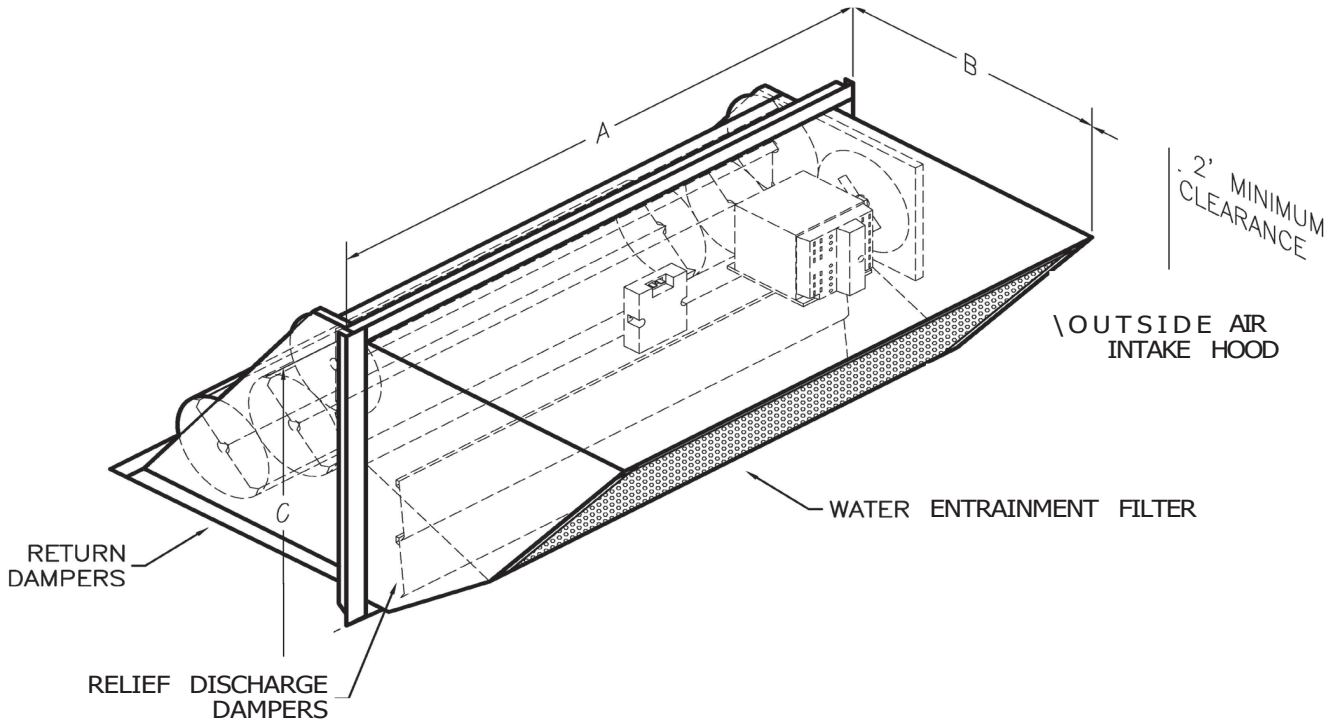
power exhaust (5)
0 - NO POWER EXHAUST A - 208/230V 1Φ FIXED PE B - 208/230V 3Φ FIXED PE C - 460V 3Φ FIXED PE

options (6)
0 - NONE B - HUMIDITY C - BACNET D - BLDG PRESSURE* R - RTU OPEN U - ULTRA LOW LEAK

Note: By adding option "D" any powered exhaust will be modulating.

# Chassis 1 & Chassis 2 Vertical Submittal

## 100% BAROMETRIC RELIEF DOWN DISCHARGE ECONOMIZER



**Dimensions**

PART #	A	B	C	WEIGHT
EC-CHAS12-VBA0-*	33.375'	17"	19"	59lbs.

**Electrical Data**

PART	AMPS	PART	AMPS	TOTAL
ACTUATOR	.29A	CONTROLS	.27A	.56A

*OPTIONS
0 - No Options
B - Humidity/Enthalpic
C - BACNet

EC-CHAS12-VBA0-\*

CFM	SP IN WG
2600	.40
2400	.36
2200	.32
2000	.31
1800	.30
1600	.22
1400	.16
1200	.10
900	.07

**Features**

- **iAIRE Patented Controls Scheme Included**
- Low Leak Damper Included
- VOC, CO2 and Ionization included
- Heavy Gauge Galvanized Steel Construction
- American Sterling Grey Paint Finish
- One Piece Assembly
- Gear Driven Dampers
- Uses HVAC Unit Filter Access Door
- Capable of Relieving up to 100% of the Outside Air Intake

Economizers with Indoor Air Quality control are Title 24 compliant by meeting section 120.2(i) for the required controls and the efficiency requirements in 140.4(e). They also meet California ozone emissions requirements to be CARB certified.

## Chassis 1 & Chassis 2 - Vertical Install

1. Remove return air compartment filter access panel and lower economizer panel of HVAC unit. Save the screws and the filter access panel, but discard the economizer panel.
2. Slide the economizer up to the HVAC unit and tilt the top of the economizer toward the HVAC unit. Slide it into the compartment as shown below.
3. At the back of the bottom return opening, under the filter rack on the HVAC unit, there are three tabs. The front flange of the economizer must slide under these tabs.
4. Once the front flange is under the tabs, lower the economizer until it sits down into the slot on the back of the economizer and down onto the base rail of the HVAC unit.
5. Be sure the side flanges of the power exhaust cabinet are sitting in the slots of the corner posts of the HVAC unit.
6. Fasten the economizer to the HVAC unit through the holes provided. Use the screws that were removed from the economizer panel in step 1.
7. At the filter access door opening, reach in and plug the economizer harness into the corresponding economizer harness in the HVAC unit.
8. Refer to page 5 in IOM-0014 Economizer Controls Installation Manual for installation of the various sensors and actuators. Connect wires according to the wiring diagram on page 8.
9. Slide the filter access door back into the place above the economizer.

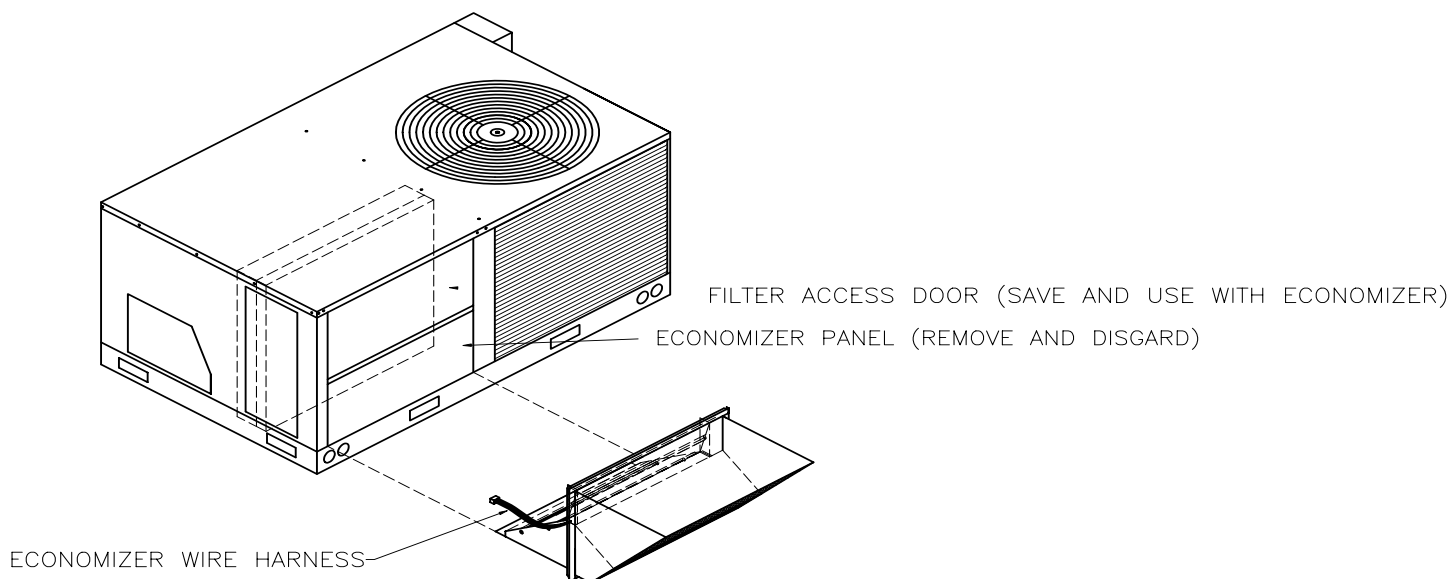
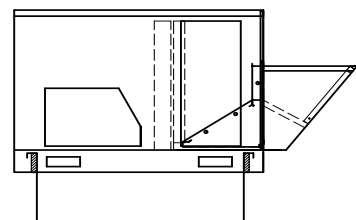
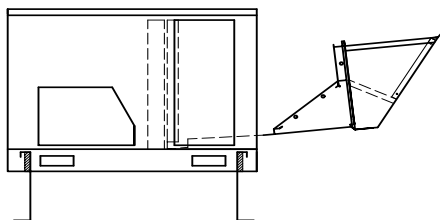


FIG.1



## Carrier Economizer Install Notes

### Additional Notes

1. Motor Spring>Returns closed when unit is not running.
2. Ensure that equipment transformer is sized to handle the extra load of the economizer and actuator.
3. When using a heat with defrost feedback, add an isolation relay between O and C. (Field provided and installed).