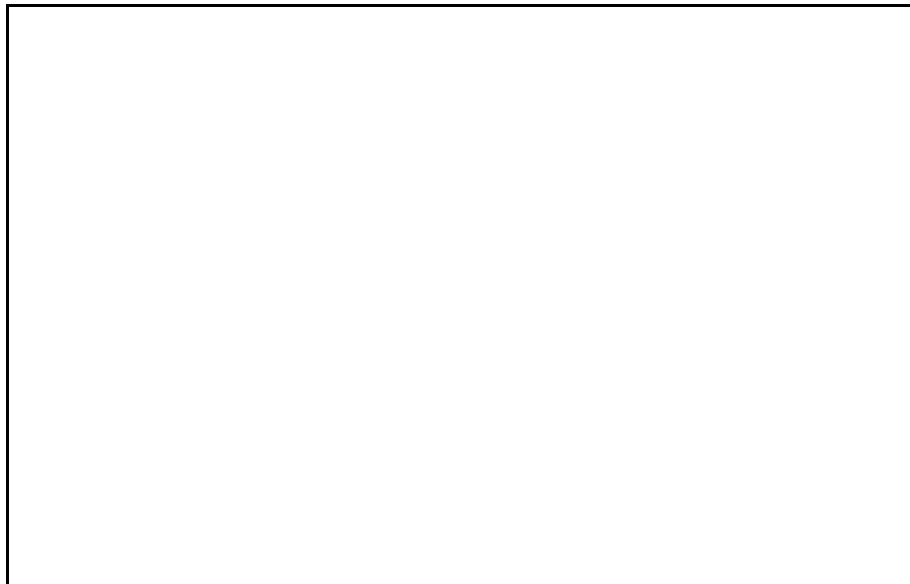




**50GCQ 04-06 WEATHERMASTER® SERIES
HIGH EFFICIENCY SINGLE PACKAGE
ROOFTOP
HEAT PUMP, WITH FIELD-INSTALLED
ELECTRIC HEAT, PURON® (R-410A)
REFRIGERANT**

- PERFORMANCE DATA**
- CERTIFIED DIMENSION PRINTS**
- CERTIFIED ROOF CURB DETAILS**



JOB NAME:	LOCATION:	
BUYER:	BUYER PO #:	CARRIER#:
UNIT NUMBER:	MODEL NUMBER:	
PERFORMANCE DATA CERTIFIED BY:		

DESCRIPTION

50GCQ units are high-efficiency, single-packaged heat pump units with Ecoblue™ Technology that are pre-wired and pre-charged with Puron® refrigerant. Electric heat is available as a field-installed accessory. The units are fully factory tested and agency certified. These units have field convertible supply and return openings and are intended for installation on a roof curb accessory (ordered separately), or for slab mounting (for horizontal duct connections). Units may be ordered with various factory-installed options. Field-installed accessories are also available.

FEATURES

Standard Base Unit

- Puron® (R-410A) HFC refrigerant
- SEERs up to 16.2
- HSPFs up to 8.3 (COPs to 3.9)
- ASHRAE 90.1 compliant and Energy Star qualified
- Rated in accordance with AHRI Standards 210/240
- Designed in accordance with Underwriters Laboratories Std 1995
- Listed by UL and UL-Canada
- Non-corrosive composite sloping design; side or center drain condensate pan. Meets ASHRAE Standard 62
- Two-stage cooling capacity control on all models
- Standard cooling operating range up to 125°F (52°C) and down to 40°F (4°C).
- Convertible from vertical to horizontal airflow for slab mounting
- Two-inch disposable return air filters
- Thru-the-bottom power entry capability
- Single point electric connections on field-installed electric heat units
- 24-volt control circuit protected with resettable circuit breaker and 75-VA transformer
- Direct Drive - EcoBlue™ Technology indoor fan system uses Vane Axial fan design and electronically commutated motor. Multi speed design
- Totally enclosed condenser motors with permanently lubricated bearings
- State-of-the-art defrost control board, easily configured for defrost cycles of 30, 60, 90, or 120 minutes
- New Unit Control Board with intuitive quick fan adjustment
- Loss of charge, high-pressure, and freeze protection switches
- Full perimeter base rail with built-in rigging adapters and fork truck slots

Cabinet

- Access panels with easy grip handles and replaceable no-strip screw collar
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection
- Fully insulated cabinet
- Tool-less filter access door

Refrigerant System

- TXV refrigerant metering system on all models
- Liquid line filter drier
- Scroll compressors with internal line-break overload protection
- Indoor and outdoor coils constructed of aluminum fins mechanically bonded to seamless copper tubes
- Removable gauge line plugs for reading refrigerant pressure with unit panels in place
- Four-way reversing valve operation
- Suction Line Accumulator standard - prevents excessive liquid flood back of refrigerant to the compressor even during the start of the defrost cycle

Standard Limited Parts Warranty

- 5-year electric heater (field-installed)
- 3-year SystemVu Controller
- 5-year compressor
- 1-year parts

PERFORMANCE DATA

Unit Operating Weight _____ lb

Curb Weight _____ lb

COOLING

Net Total Capacity _____ Btuh

Net Sensible Capacity _____ Btuh

Compressor Power Input _____ kW

at Outdoor Air Temperature _____ °F

Indoor Entering: db _____ °F / wb _____ °F

Airflow _____ CFM External Static Pressure _____ in. wg

HEATING

Heating Capacity:

Power Input to Unit _____ kW

Integrated Capacity _____ Btuh

Indoor Operating Air Temperature _____ °F db

Outdoor Air Temperature _____ °F (Winter Design)

Rating at 70% R. H. Outdoors _____ kW Heater selected

_____ Heat/Cool Ratio

Electrical Capacity Required _____ Btuh

ELECTRICAL DATA

Power Supply to Unit _____

Volts _____

Phase _____ Hz

Minimum Circuit Amps _____

Maximum Overcurrent Protection (fuse only) _____

SUBMITTAL DATA

Job Name _____

Architect _____

Engineer _____

Contractor _____

Unit Designation _____



FACTORY-INSTALLED OPTIONS

Economizer with DRY BULB Sensing and Barometric Relief

ULTRA LOW LEAK Air Dampers —

- Models with W7220 controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, have return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5-year limited parts warranty (EconoMiSer X system).
- Models with RTU Open controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, have return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5-year limited parts warranty (EconoMiSer 2 system).

Economizer with ENTHALPY Sensing and Barometric Relief

ULTRA LOW LEAK Air Dampers —

- Models with W7220 controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, have return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5-year limited parts warranty (EconoMiSer X system).
- Models with RTU Open controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, have return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1-2013) requirements — plus 5-year limited parts warranty (EconoMiSer 2 system).

- HACR Breaker
- Foil Faced Insulation
- MERV 8 Filters
- SystemVu Controls
 - Large full text - multi line display
 - USB Flash Port for data transfer
 - Built in i-Vu®, CCN and BACnet
 - Refrigerant pressure from display
 - Quick LED Status - Run, Alert, Fault
 - Conventional stat or sensor capabilities
 - Historical component runtime and starts
 - Supply Air Tempering
 - Equipment / System Touch Compatibility
 - Demand Limiting and ZS Sensor Compatibility
- RTU Open multi-protocol controller communicates to LonWorks¹, MODBUS², BACnet³, and Johnson N2 protocols
- Through-the-base connectors for electric conduit
- Non-fused disconnect (80A max)
- Powered 115-volt convenience outlet
- Non-powered 115-volt convenience outlet
- High static evaporator fan motor
- Return air smoke detector
- Supply air smoke detector
- Smoke detectors — return and supply air
- Pre-coated Al/Cu condenser coil
- E-coated Al/Cu condenser coil
- E-coated Al/Cu condenser and evaporator coil
- Cu/Cu condenser coil
- Cu/Cu condenser coil and evaporator coil
- Condenser hail guard - louvered style⁴
- CO₂ sensor
- Hinged access doors
- Condensate overflow switch
- Phase Monitor/Protection

Optional Warranties

- Complete unit parts only, up to 5 years
- Complete unit parts and labor, up to 5 years

Many other optional warranties are available. See the *Commercial Start-Up and Optional Extended Warranty Price* pages for further information.

1. LonWorks is a registered trademark of Echelon Corporation.
2. MODBUS is a registered trademark of Schneider Electric.
3. BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers).
4. Not available on single phase (-3) voltage models.

FIELD-INSTALLED ACCESSORIES

Economizer with DRY BULB Sensing and Barometric Relief¹

Standard Leak Air Dampers —

- Models with W7212 controller provide standard non-diagnostic control (EconoMiSer IV system).
- Models with W7220 controller meet California Title 24 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMiSer X system).
- Models with RTU Open controller meet California Title 24 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMiSer 2 system).

Economizer with ENTHALPY Sensing and Barometric Relief¹

Standard Leak Air Dampers —

- Models with W7212 controller provide standard non-diagnostic control (EconoMiSer IV system).
- Models with W7220 controller meet California Title 24 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMiSer X system).
- Models with RTU Open controller meet California Title 24 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMiSer 2 system).

Economizer with DRY BULB Sensing and Barometric Relief¹

ULTRA LOW LEAK Air Dampers —

- Models with W7220 controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, have return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5-year limited parts warranty (EconoMiSer X system).
- Models with RTU Open controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, have return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5-year limited parts warranty (EconoMiSer 2 system).

Economizer with ENTHALPY Sensing and Barometric Relief¹

ULTRA LOW LEAK Air Dampers —

- Models with W7220 controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, have return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5-year limited parts warranty (EconoMiSer X system).
- Models with RTU Open controller meet California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, have return, outside air and relief damper leakage that meet Title 24 (section 140.4 and ASHRAE 90.1) requirements — plus 5-year limited parts warranty (EconoMiSer 2 system).

- Power exhaust — vertical or horizontal
- Electric heat
- Single point kit
- Two-position motorized outdoor air damper
- Manual outside air damper 25%
- Manual outside air damper 50%
- Roof curb — 14 inch (356 mm) tall
- Roof curb — 24 inch (610 mm) tall
- Thru-the-bottom utility connection kit
- Time Guard II compressor anti-cycle protection
- Thru-the-bottom connections, electrical and gas
- Outdoor coil hail guard — louvered style
- Programmable setback thermostat
- Phase monitor (loss of phase/phase reversal)
- Thermostats and Sensors
- Condensate overflow switch

Economizer Sensors

- Single dry bulb control
- Differential dry bulb control
- Single enthalpy control
- Differential enthalpy control
- CO₂ — wall mounted
- CO₂ — duct mounted
- CO₂ — unit mounted
- 20 Amp non powered convenience outlet

1. Not available for single phase (-3 voltage) models.

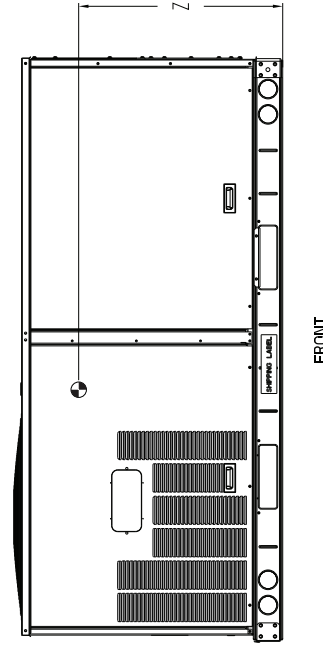
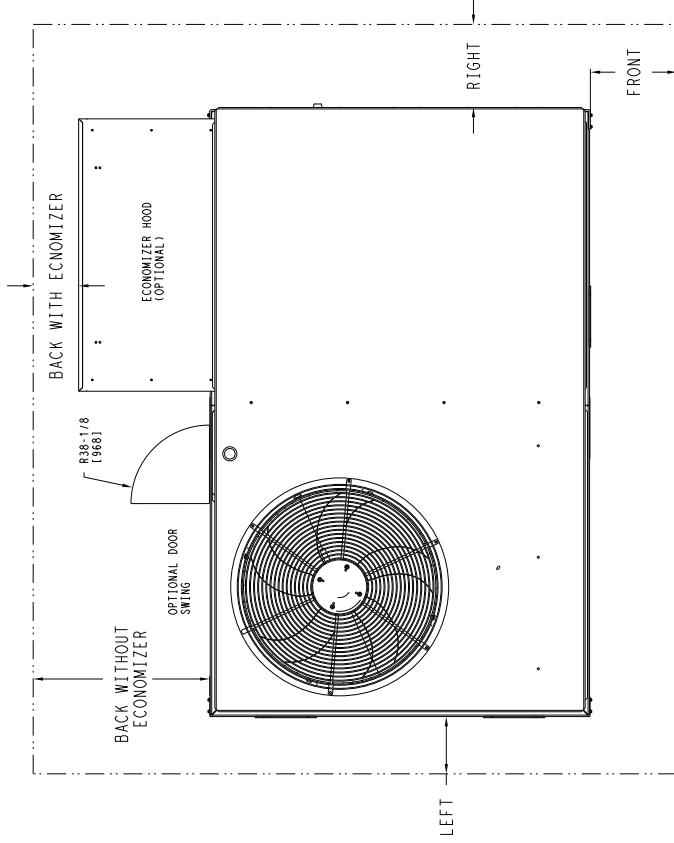
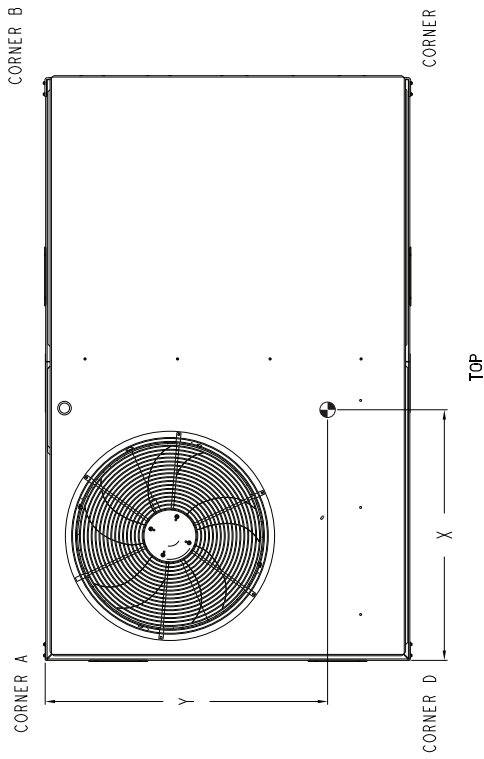
UNIT DIMENSION PRINT

Carrier
Carrier Technologies

THIS DOCUMENT IS THE PROPERTY OF ITC CLIMATE CONTROLS. SUBMISSION OF THIS DRAWING OR DOCUMENT'S SECURITY AND IS DELIVERED UPON THE EXPRESS CONDITION THAT IT WILL NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN CONSENT.

UNIT	CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.			HEIGHT	
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z		
50GCO-04	475	215	128	58	120	54	110	50	117	53	36 [914]	22 3/8 [568]	16 1/8 [410]
50GCO-05	590	268	162	73	147	67	134	61	148	67	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]
50GCO-06	586	270	163	74	148	67	125	61	149	68	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]

•• STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.
 FOR OTHER OPTIONS AND ACCESSORIES REFER TO THE PRODUCT DATA CATALOG.



NOTE:
 1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

SURFACE	CLEARANCE		
	SERVICE WITH: CONDUCTIVE BARRIER	SERVICE WITH: NONCONDUCTIVE BARRIER	OPERATING CLEARANCE
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/O ECON	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/ECON	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]

ITC CLASSIFICATION	SHEET	DATE
U.S. - ECCN: NSR	2 OF 3	08/15/19
SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	REV
		48TC003351

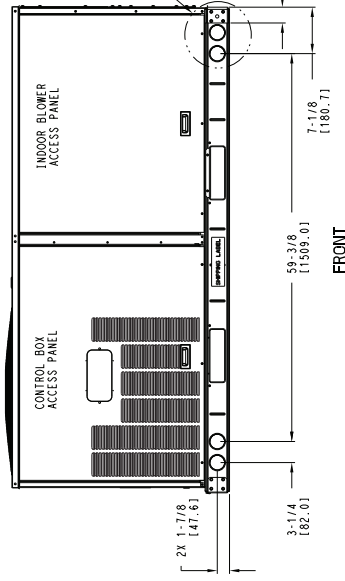
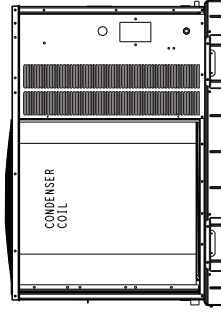
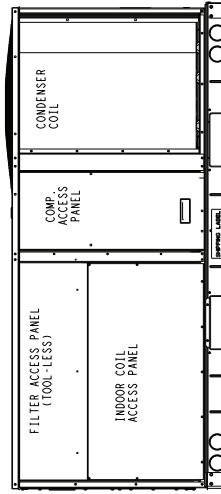
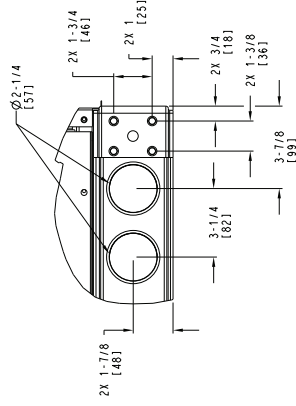
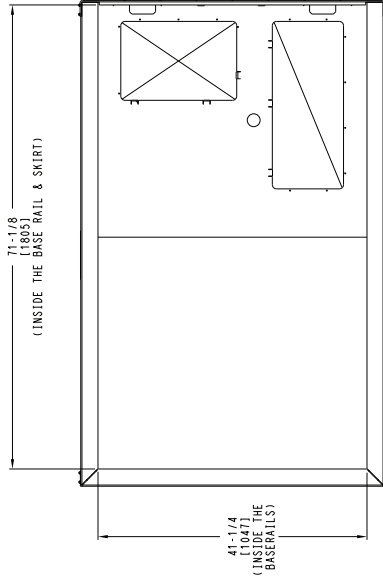
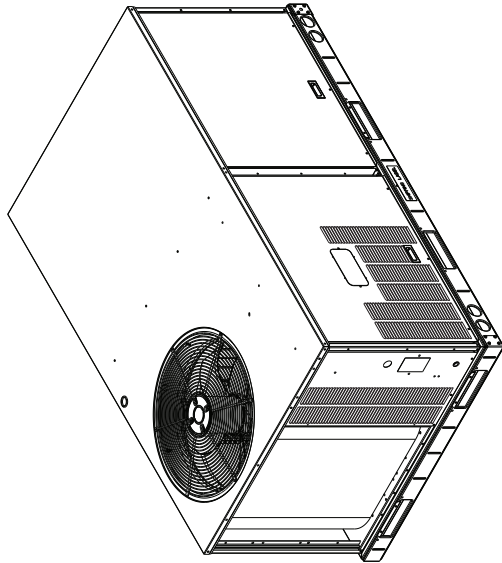
Fig. 1 — 50GCO* 04-06 Base Unit Dimensions (cont)

UNIT DIMENSION PRINT

Carrier
Carrier Technologies

THIS DOCUMENT IS THE PROPERTY OF ITC CLIMATE CONTROL. DISSEMINATION OF THESE DRAWINGS OR DOCUMENTS WITHOUT WRITTEN CONSENT IS PROHIBITED. THIS DOCUMENT IS TO BE DISCLOSED OR USED ONLY AS AUTHORIZED BY THE ISSUING OFFICE. THIS DOCUMENT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT WRITTEN CONSENT.

DISSEMINATION OF THESE DRAWINGS OR DOCUMENTS WITHOUT WRITTEN CONSENT IS PROHIBITED. THIS DOCUMENT IS TO BE DISCLOSED OR USED ONLY AS AUTHORIZED BY THE ISSUING OFFICE. THIS DOCUMENT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT WRITTEN CONSENT.



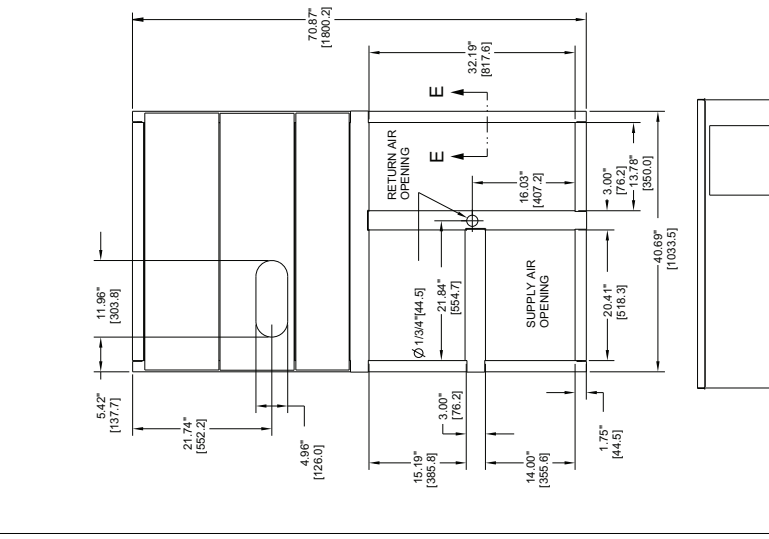
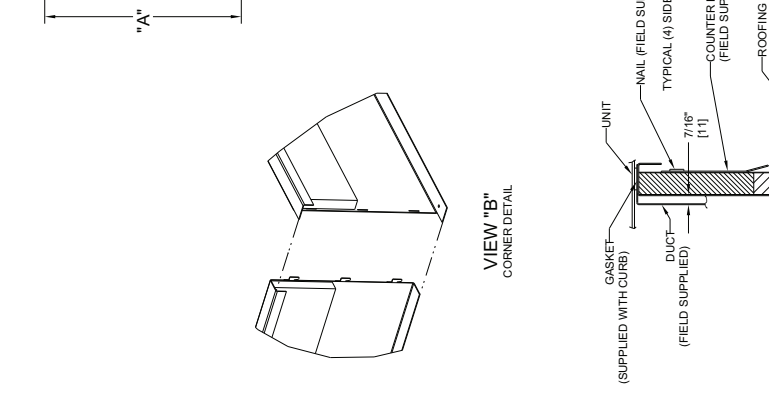
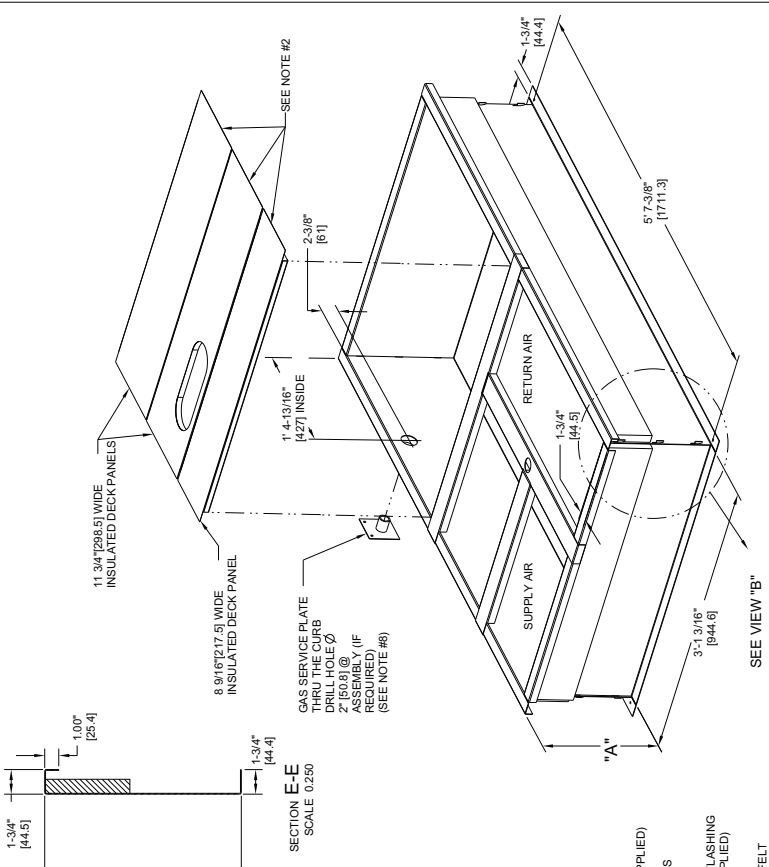
ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	REV
U.S. - ECCN: NSR	3 OF 3	08/15/19		48TC003351	-

Fig. 1 — 50GCO* 04-06 Base Unit Dimensions (cont)

ACCESSORY DIMENSIONS PRINT

CONNECTOR PKG. ACC.	GAS CONNECTION TYPE	GAS FITTING	POWER WIRING FITTING	CONTROL WIRING FITTING	ACCESSORY CONVENIENCE OUTLET WIRING CONNECTOR
CRBTMPWR001A01	THRU THE CURB	3/4" [19] NPT	3/4" [19] NPT	1/2" [12.7] NPT	1/2" [12.7] NPT
CRBTMPWR003A01	THRU THE BOTTOM	1/2" [12.7] NPT			

- NOTES:
1. ROOF CURB ACCESSORY IS SHIPPED DISASSEMBLED.
 2. INSULATED PANELS: 25.4 [1"] THK. POLYURETHANE FOAM, 44.5 [1.3/4"] # DENSITY.
 3. DIMENSIONS IN [] ARE IN MILLIMETERS.
 4. ROOF CURB IS TO BE INSTALLED ON A 1/2" [12.7] THK. POLYURETHANE INSULATED DECK PANEL.
 5. ROOF CURB IS TO BE INSTALLED ON A 1/2" [12.7] THK. POLYURETHANE INSULATED DECK PANEL.
 6. SERVICE CLEARANCE 4 FEET ON EACH SIDE.
 7. DIRECTION OF AIR FLOW.
 8. CONNECTOR PACKAGE CRBTMPWR001A01 IS FOR THRU-THE-CURB GAS TYPE PACKAGE CRBTMPWR003A01 IS FOR THRU-THE-BOTTOM TYPE GAS CONNECTIONS.



CERTIFIED DRAWING

DRAWING RELEASE LEVEL:		PRODUCTION	
THIRD ANGLE PROJECTION	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	1. DEC 31 2011	2. DEC 31 2011
MATERIAL	AUTHORIZATION NUMBER	1041738	
ENGINEERING REQUIREMENTS	ENGINEERING	MANUFACTURING	
T-005, Y-002	DRAWER	CHECKER	
WEIGHT	MMC	DBT/7/11	
SURFACE FINISH	MEASURE	MODEL (INTERNAL USE ONLY)	
	PURCH		
TITLE		SIZE	REV
CURB ASY, ROOF		DRAWING NUMBER	B
		48TC400427	SHEETS OF 5
		NEXT DRAWING	DISTRIBUTION
		SCALE	N/A
			MMC

REV	DATE	BY	CHKD	APPD	ECN NO.
A	04/22/13	MMC			1067698
OVERALL DIM: 5-7.38" WAS 5-7.78; 18GA					
FOR W/A: 16 GA; NAIL FIELD SUPPLIED WAS					
WITH CURB					
REVISION RECORD					

Fig. 2 — 50GCQ* 04-06 Roof Curb Dimensions

