48TC*A 07 WEATHERMAKER® SERIES
SINGLE PACKAGE ROOFTOP
GAS HEAT/ELECTRIC COOLING UNITS

— PERFORMANCE DATA

— CERTIFIED DIMENSION PRINTS

— CERTIFIED ROOF CURB DETAILS
**DESCRIPTION**

48TC*A 07 unit is a single-packaged electric cooling, gas heating unit that is pre-wired and pre-charged with Puron® (R-410A) HFC refrigerant. The unit is factory tested in both heating and cooling modes. This unit meets the DOE-2018 (Department of Energy), ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) 90.1-2016, and IECC-2015 (International Energy Conservation Code) minimum efficiency requirements when equipped with the SAV™ (Staged Air Volume) option.

**FEATURES**

**Standard Base Unit (United States Models)**
- Puron (R-410A) HFC refrigerant
- EER of 11.0
- IEER of 12.7 (includes SAV)
- Rated in accordance with AHRI Standards 340/360
- Designed in accordance with Underwriters Laboratories Std 1995
- Listed by UL and UL-Canada
- Single-stage cooling capacity control
- Non-corrosive composite sloping design; side or center drain condensate pan. Meets ASHRAE Standard 62
- Standard cooling operating range from 40°F up to 115°F (4°C up to 46°C). Field installable accessory extends the minimum down to –20°F (–29°C)
- Field convertible from vertical to horizontal airflow for slab mounting — no special kits required
- Two-inch disposable return air filters
- Thru-the-bottom power and gas entry capability
- Single point gas and electric connections
- 24-volt control circuit protected with resettable circuit breaker
- Totally enclosed condenser motors with permanently lubricated bearings
- Low-pressure and high-pressure switches
- Full perimeter base rail with built-in rigging adapters and fork truck slots
- Centralized terminal board facilitating simple safety circuit troubleshooting and simplified control box arrangement
- Staged Air Volume (SAV™) fan speed system

**Standard Base Unit (Non-United States Models)**
- All features listed for U.S. models, except:
  - EER of 11.0
  - IEER of 11.2
  - IEER of 12.7 with optional SAV

**Refrigerant System (All)**
- Acutrol™ refrigerant metering system
- Liquid line filter drier
- Scroll compressors with internal line-break overload protection
- Copper tube, aluminum fin coils with optional corrosion resistant coils.
- Top cover removable gauge line plugs for reading refrigerant pressure with unit panels in place

**Gas Heat (All)**
- IGC solid-state gas heat exchanger control for on-board diagnostics, anti-cycle protection, LED error code designation, burner control logic and energy saving indoor fan motor delay
- Gas efficiencies up to 82%
- Inducted draft combustion
- Redundant gas valve, with 2 states of heating
- Flame roll-out safety protector
- Solid-state electronic direct spark ignition system

**Standard Limited Parts Warranty (All)**
- 15-year gas heat exchanger parts - Stainless Steel
- 10-year gas heat exchanger parts - Aluminized
- 5-year compressor parts
- 5-year factory installed Ultra Low Leak Economizer
- 1-year parts
PERFORMANCE DATA

Unit Operating Weight __________________________ lb

COOLING

Gross Total Capacity __________________________ Btuh
at Condenser Air Temperature ______________ °F
Gross Sensible Capacity _________________________ Btuh
Compressor Power Input ________________________ kW
Indoor Entering: db __________ °F / wb __________ °F
Airflow _____ CFM  External Static Pressure _____ in. wg
Indoor Fan Motor Size _________________ HP
Exhaust Fan Motor Size __________________________ HP

Curb Weight __________________________________ lb

HEATING (GAS)

Heating Capacity:
Stage 1 __________________________ Btuh
Stage 2 __________________________ Btuh
Heating Capacity Total ______________________ Btuh
Stage 1 __________________________ kW
Stage 2 __________________________ kW
Heating Capacity Total ______________________ Btuh

ELECTRICAL DATA

Power Supply to Unit _________________________________
Volts _________________________________
Phase _________________________________ Hz
Maximum Circuit Amps _______________________________
Maximum Overcurrent Protection __________________________

SUBMITTAL DATA

Job Name _________________________________
Architect _________________________________
Engineer _________________________________
Contractor _________________________________
Unit Designation _________________________________

Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program for verification of certification for individual products, go to www.ahridirectory.org.
FACTOR-INSTALLED OPTIONS

☐ Economizer with DRY BULB Sensing and Barometric Relief
   Low Leak Air Dampers —
   ○ Models with W7212 controller provide standard non-diagnostic control (EconoMi$er® IV system).
   ○ Models with W7220 controller meet California Title 24-2016 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMi$er X system).
   ○ Models with RTU Open controller meet California Title 24-2016 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMi$er 2 system).
   ○ Models with PremierLink™ controller. PremierLink controller does not meet California Title 24-2016 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMi$er 2 system).

☐ Economizer with ENTHALPY Sensing and Barometric Relief
   Low Leak Air Dampers —
   ○ Models with W7212 controller provide standard non-diagnostic control (EconoMi$er® IV system).
   ○ Models with W7220 controller meet California Title 24-2016 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMi$er X system).
   ○ Models with RTU Open controller meet California Title 24-2016 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMi$er 2 system).
   ○ Models with PremierLink™ controller. PremierLink controller does not meet California Title 24-2016 (Section 120.2) Fault Detection and Diagnostic (FDD) requirements (EconoMi$er 2 system).

☐ Economizer with DRY BULB Sensing and Barometric Relief
   ULTRA LOW LEAK Air Dampers —
   ○ Models with W7220 controller meet California Energy Commission Title 24-2016 perspective section 140.4 (damper leakage, etc.) and mandatory section 120.2.i for Fault Detection and Diagnostic requirements. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. For outside air, return, and relief air damper leakage requirements economizers meet IECC 2012 section C402.4.5.2 and, IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief air damper leakage requirements and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements. NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately. Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty (EconoMi$er X system).
   ○ Models with RTU Open meet California Energy Commission Title 24-2016 perspective section 140.4 (damper leakage, etc.) and mandatory section 120.2.i for Fault Detection and Diagnostic requirements. Economizers meet ASHRAE 90.1-2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. Economizers meet IECC 2012 section C402.4.5.2 and, IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief air damper leakage requirements and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements. NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately. Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty (EconoMi$er 2 system).
FACTORY-INSTALLED OPTIONS (CONT)

- RTU Open multi-protocol controller communicates to BACnet*, Modbus†, LonWorks**, and Johnson N2 protocols.
- CCN Direct Digital Control (DDC) — Premier-Link™ Controller††
- Through the base connectors for gas and electric conduit/piping
- Stainless steel gas heat exchanger (includes tubes, vestibule plate and collector box)
- Humidi-MiZer® adaptive dehumidification system
- Two-position motorized outdoor air damper (not available with SAV™ (staged air volume) (2 speed fan models)††
- Non- fused disconnect
- Powered 115-volt convenience outlet
- Non- powered 115-volt convenience outlet
- High static evaporator fan motor
- Return air smoke detector
- Supply air smoke detector
- CO2 sensor
- Condenser hail guard - louvered style
- Special coating protection for evaporator and condenser coils
- Hinged access doors
- Condensate overflow switch

Standard Base Unit (Non-United States Models)
- Staged Air Volume (SAV™) 2-speed fan system

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.

* BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers).
† Modbus is a registered trademark of Schneider Electric.
** LonWorks is a registered trademark of Echelon Corporation.
†† Not available with SAV 2-speed fan motor.
Economizer with DRY BULB Sensing and Barometric Relief

Low Leak Air Dampers —

- Models with W7212 controller provide standard non-diagnostic control. EconoMi$er IV.
- Models with W7220 controller meet California Title 24-2016 Section 120.2.i for Fault Detection and Diagnostic (FDD) requirements. EconoMi$er X.
- Models with PremierLink controller. PremierLink controller does not meet California Title 24-2016 Section 120.2.i Fault Detection and Diagnostic (FDD) requirements. EconoMi$er 2.

Economizer with ENTHALPY Sensing and Barometric Relief

Low Leak Air Dampers —

- Models with W7212 controller provide standard non-diagnostic control. EconoMi$er IV.
- Models with W7220 controller meet California Title 24-2016 Section 120.2.i Fault Detection and Diagnostic (FDD) requirements. EconoMi$er X.
- Models with RTU Open controller meet California Title 24-2016 Section 120.2.i Fault Detection and Diagnostic (FDD) requirements. EconoMi$er 2.
- Models with PremierLink controller. PremierLink controller does not meet California Title 24-2016 Section 120.2.i Fault Detection and Diagnostic (FDD) requirements. EconoMi$er 2.

Economizer with DRY BULB Sensing and Barometric Relief

ULTRA LOW LEAK Air Dampers —

- Models with W7220 controller meet California Energy Commission Title 24-2016 perspective section 140.4 (damper leakage, etc.) and mandatory section 120.2.i for Fault Detection and Diagnostic requirements. Economizers meet ASHRAE 90.1-2013 / 2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. Economizers meet IECC 2012 section C402.4.5.2 and, IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief air damper leakage requirements and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.

NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately. Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty. EconoMi$er 2.

Economizer with ENTHALPY Sensing and Barometric Relief

Models with RTU Open meet California Energy Commission Title 24-2016 perspective section 140.4 (damper leakage, etc.) and mandatory section 120.2.i for Fault Detection and Diagnostic requirements. Economizers meet ASHRAE 90.1-2013 / 2016 damper leakage requirements as stated in section 6.5.1.1.4 and Table 6.4.3.4.3, and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12. Economizers meet IECC 2012 section C402.4.5.2 and, IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief air damper leakage requirements and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements.

NOTE: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which must be ordered separately. Outside air, return air, and relief air (volume) dampers are AMCA rated — plus 5 year limited parts warranty. EconoMi$er 2.
<table>
<thead>
<tr>
<th>FIELD-INSTALLED ACCESSORIES (CONT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Display Kit for Variable Frequency Drive (VFD), Staged Air Volume (SAV™) System. Allows additional set up and diagnostics of the unit VFD controller. Can be unit mounted or used with any other compatible VFD model as a reusable device.</td>
</tr>
<tr>
<td>☐ Power exhaust — prop fan design</td>
</tr>
<tr>
<td>☐ Two-position motorized outdoor air damper*</td>
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<tr>
<td>☐ Manual outside air damper 25%*</td>
</tr>
<tr>
<td>☐ Manual outside air damper 50%*</td>
</tr>
<tr>
<td>☐ Roof curb — 14 inch (356mm) tall</td>
</tr>
<tr>
<td>☐ Roof curb — 24 inch (610mm) tall</td>
</tr>
<tr>
<td>☐ Thru-the-bottom connections, electrical only</td>
</tr>
<tr>
<td>☐ Thru-the-bottom connections, electrical and gas</td>
</tr>
<tr>
<td>☐ Condenser hail guard, louvered style</td>
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<tr>
<td>☐ Flue shield</td>
</tr>
<tr>
<td>☐ Flue discharge deflector</td>
</tr>
<tr>
<td>☐ Liquid propane (LP) conversion kit</td>
</tr>
<tr>
<td>☐ High altitude conversion kit</td>
</tr>
<tr>
<td>☐ Phase monitor (loss of phase/phase reversal)</td>
</tr>
<tr>
<td>☐ Winter start kit, down to 25°F (–4°C)</td>
</tr>
<tr>
<td>☐ Fan/Filter status switch</td>
</tr>
<tr>
<td>☐ Low ambient head pressure controller, down to 0°F (–18°C)</td>
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<tr>
<td>☐ Low ambient head pressure controller, down to −20°F (–29°C)</td>
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<tr>
<td>☐ Time Guard II compressor anti-cycle protection</td>
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<tr>
<td>☐ Thermostats and Sensors</td>
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<tr>
<td>☐ Condensate overflow switch</td>
</tr>
<tr>
<td>☐ Non-powered 115-volt (20 amp) convenience outlet</td>
</tr>
<tr>
<td>☐ Side access hinged filter door kit</td>
</tr>
<tr>
<td>☐ Horn/Strobe annunciator</td>
</tr>
</tbody>
</table>

**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

* Not available with SAV 2-speed fan motor.
Fig. 1 — 48TC**07 Dimensional Drawing
CERTIFIED DIMENSION PRINT

Fig. 2 — 48TC**07 Corner Weights
Fig. 3 — 48TC**07 Roof Curb Accessory Details