



Product Data

WeatherMaker® Single Package Heat Pump Rooftop

3 to 6 Nominal Tons

ecoblue™  technology



50FCQ*04, 05, 06, 07
Single-Packaged Heat Pump with Optional Electric Heat
and Puron® Refrigerant (R-410A)

The New Carrier WeatherMaker® packaged heat pump rooftop units (RTU) with EcoBlue™ Technology were designed by customers for customers and integrate new technology to provide value added benefits never seen in this type of equipment before.

New major design features include:

- Patented, industry's first efficient indoor fan system using Vane Axial fan with electronically commutated variable speed motor
- Reliable fixed speed scroll compressor on 3-5 ton sizes and 2 stage scroll technology on 6 ton sizes
- Upgraded unit control board with intuitive indoor fan adjustment
- Reliable copper tube/aluminum fin condenser coil with 5/16 in. tubing to help reduce refrigerant charge versus prior designs
- New outdoor fan system with rugged — lightweight high impact composite fan blade

50FCQ WeatherMaker® units up to 6 tons are specifically designed to fit on Carrier roof curbs that were installed back to 1989, which makes replacement easy and eliminates the need for curb adapters or changing utility connections.

Single-stage units deliver efficiencies of up to 14.3 SEER and 8.2 HSPF on 3-phase products and 13.4 SEER2 and 7.0 HSPF2 on single-phase products. Two-stage units deliver up to 15.0 IEER. All models are capable of either vertical or horizontal airflow.

The Carrier rooftop unit (RTU) was designed by customers for customers. With “no-strip” screw collars, handled access panels, and more, the unit is easy to install, easy to maintain, and easy to use. Precisely sized Suction Line Accumulator to help insure reliable operation at unit operation conditions.

Value-added features include:

- Puron® refrigerant (R-410A)
- Single point electrical connections
- Optional fully integrated SystemVu™ controls
- RTU Open controller for BACnet™¹, LonWorks®¹, Modbus®¹ and Johnson Controls N2

- 3 to 5 ton models use fixed refrigerant metering devices and 6 ton models use a TXV
- Scroll compressors with internal line-break overload protection
- Easy access tool-less filter door. Filter track tilts out for filter removal and replacement. All filters are the same size in each unit.

Installation ease

All WeatherMaker units are field-convertible to horizontal airflow, which makes it easy to adjust to unexpected jobsite complications. Lighter units make for easy replace. Simple, fast plug-in connections to the standard integrated unit control board (UCB). Clearly labeled connections points to reduce installation time. Also, a large control box provides room to work and room to mount Carrier accessory controls.

Easy to maintain

With the new EcoBlue Vane Axial fan system and direct drive ECM motor, there is no longer a need to adjust belts or pulleys as in past designs. This frees up maintenance and installation time.

Easy access handles by Carrier provide quick and easy access to all normally serviced components. Our “no-strip” screw system has superior holding power and guides screws into position while preventing the screw from stripping the unit's metal.

Sloped, corrosion resistant composite drain pan sheds water; and won't rust.

Easy to use

The newly re-designed Unit Control Board by Carrier puts all connections and troubleshooting points in one convenient place. Most low voltage connections are made to the same board and make it easy to access it. Setting up the fan is simple by an intuitive switch and rotary dial arrangement. Carrier rooftops have high and low pressure switches, a filter drier, and 2-in. filters standard.

1. Third-party trademarks and logos are property of their respective owners.

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EcoBlue™ Technology

Direct drive EcoBlue Technology indoor fan system uses Vane Axial fan design and direct drive electronically commutated motors.

This new Vane Axial design over past belt drive systems has 75% fewer moving parts, uses up to 40% less energy and has no fan belts, blower bearings and shaft.

Streamlined control and integration

Carrier controllers make connecting WeatherMaker® rooftops into existing building automation systems easy. The units are compatible with conventional thermostat controls, SystemVu™ controls and Carrier RTU Open multi-protocol controller.

Operating efficiency and flexibility

The 50FCQ rooftops meet ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) 90.1-2016, IECC®1-2018 (International Energy Conservation Code) minimum efficiency requirements.

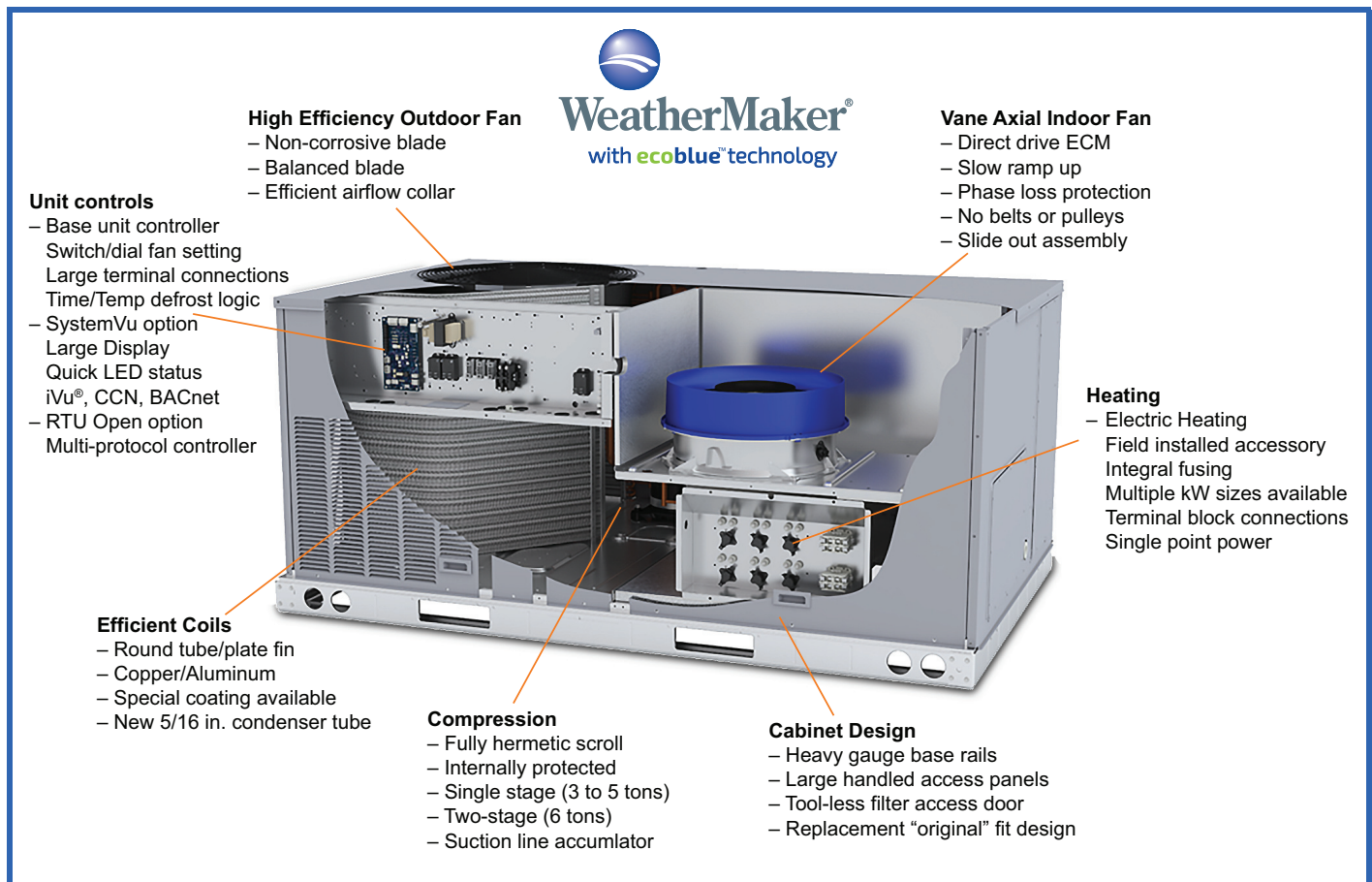
Field convertible airflow

All WeatherMaker 3 to 6 ton units are field-convertible to horizontal airflow, which makes it easy to adjust to unexpected jobsite complications.

Comfort control

Carrier's Round Tube Plate Fin coil design helps maximize heat transfer and reliable operation.

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50FCQ Model Number Nomenclature

Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Example:	5	0	F	C	Q	A	0	4	A	2	A	5	-	0	A	0	A	0

Unit/Series/Model

50FCQ – Packaged Rooftop Heat Pump
 14.3 SEER Standard Efficiency, sizes 04-06
 13.4 SEER2 Standard Efficiency, sizes 04-06
 15.0 IEER Standard Efficiency, size 07

Refrig. Systems Options

A = Standard One Stage Cooling Models^{1,2}
 C = Standard One Stage Cooling Models, 1-phase voltage (size 05 only)³
 M = Single Circuit, Two Stage Cooling Models⁴

Cooling Tons

04 = 3 tons
 05 = 4 tons
 06 = 5 tons
 07 = 6 tons

Sensor Options

A = None
 B = Return Air (RA) Smoke Detector
 C = Supply Air (SA) Smoke Detector
 D = RA + SA Smoke Detector
 E = CO₂ Sensor
 F = RA Smoke Detector and CO₂ Sensor
 G = SA Smoke Detector and CO₂ Sensor
 H = RA + SA Smoke Detector and CO₂ Sensor
 J = Condensate Overflow Switch (Electromechanical controls only)
 K = Condensate Overflow Switch and RA Smoke Detector
 L = Condensate Overflow Switch and RA and SA Smoke Detectors
 M = Condensate Overflow Switch and SA Smoke Detector

Indoor Fan Options

1 = Direct Drive – EcoBlue – Standard Static
 2 = Direct Drive – EcoBlue – Medium Static
 3 = Direct Drive – EcoBlue – High Static

Coil Options – (Outdoor - Indoor — Hail Guard)

A = Al/Cu - Al/Cu
 B = Precoat Al/Cu - Al/Cu
 C = E-coat Al/Cu - Al/Cu
 D = E-coat Al/Cu - E-coat Al/Cu
 E = Cu/Cu - Al/Cu
 F = Cu/Cu - Cu/Cu
 M = Al/Cu - Al/Cu — Louvered Hail Guard
 N = Precoat Al/Cu - Al/Cu — Louvered Hail Guard
 P = E-coat Al/Cu - Al/Cu — Louvered Hail Guard
 Q = E-coat Al/Cu - E-coat Al/Cu — Louvered Hail Guard
 R = Cu/Cu - Al/Cu — Louvered Hail Guard
 S = Cu/Cu - Cu/Cu — Louvered Hail Guard

Voltage

1 = 575-3-60
 3 = 208/230-1-60^{1,5}
 5 = 208/230-3-60
 6 = 460-3-60

Packaging & Seismic Compliance

0 = Standard
 1 = LTL

Electrical Options

A = None
 C = Non-Fused Disconnect (NFD)
 D = Thru-The-Base Connections (TTB)
 F = Non-Fused Disconnect and TTB Connections
 N = Phase Monitor Protection
 Q = Phase Monitor Protection and NFD
 R = Phase Monitor Protection and TTB Conn.
 T = Phase Monitor Protection, NFD, and TTB Connections

Service Options

0 = None
 1 = Unpowered Convenience Outlet (CO)
 2 = Powered Convenience Outlet
 3 = Hinged Access Panels
 4 = Hinged Access Panels and Unpowered CO
 5 = Hinged Access Panels and Powered CO
 6 = MERV-8 High Efficiency (HE) Filters
 7 = Unpowered CO and MERV-8 HE Filters
 8 = Powered CO and MERV-8 HE Filters
 9 = Hinged Access Panels and MERV-8 HE Filters
 A = Hinged Access Panels, Unpowered CO, and MERV-8 HE Filters
 B = Hinged Access Panels, Powered CO, and MERV-8 HE Filters

Intake / Exhaust Options

A = None
 B = Temperature Economizer w/ Barometric Relief
 F = Enthalpy Economizer w/ Barometric Relief
 K = Two-Position Damper
 U = Temperature Ultra Low Leak Economizer with Barometric Relief
 W = Enthalpy Ultra Low Leak Economizer with Barometric Relief

Base Unit Controls

0 = Electromechanical Controls – can be used with field-installed W7212 EconoMiSer® IV (Non-Fault Detection and Diagnostic)¹
 2 = RTU Open Multi-Protocol Controller
 3 = SystemVu™ Controls
 6 = Electromechanical Controls – can be used with W7220 EconoMiSer X (with Fault Detection and Diagnostic)

Design Revision

- = Factory Design Revision

¹ Size 04/05/06 models only.

² Size 04 and 06 single-phase voltage units meet Department of Energy SEER2 requirements.

³ Units meet Department of Energy 2023 SEER2 requirements; available on size 05 single-phase voltage models only.

⁴ Size 07 units only.

⁵ The following are not available as a factory-installed options for models with this voltage code: Coated Coils or Cu Fin Coils, Louvered Hail Guards, Economizer or Two-Position Damper, Powered 115 Volt Convenience Outlet.

50FCQA/C 1-Phase AHRI Ratings — Cooling Mode^{a,b,c,d}

UNIT	VOLTAGE	COOLING STAGES	NOMINAL CAPACITY (tons)	NET COOLING CAPACITY 2 (MBtuh)	TOTAL POWER 2 (kW)	SEER2	EER2
50FCQA04	3	1	3	35.0	3.0	13.4	11.5
50FCQC05	3	1	4	47.0	4.2	13.4	11.2
50FCQA06	3	1	5	59.5	5.3	13.4	11.2

NOTE(S):

- Rated in accordance with AHRI Standards 210/240 (04-06 size).
- Rating are based on:
Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temperature and 95°F (35°C) db outdoor air temperature.
- Units comply with ASHRAE 90.1-2016 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) and DOE-2023 (Department of Energy) Energy Standard for minimum SEER2 and EER2 requirements.
- 50FCQ units comply with US Energy Policy Act (2005). To evaluate code compliance requirements, refer to state and local codes.

50FCQA/M 3-Phase AHRI Ratings — Cooling Mode^{a,b,c,d}

UNIT	VOLTAGE	COOLING STAGES	NOM. CAPACITY (tons)	NET COOLING CAPACITY (MBtuh)	TOTAL POWER (kW)	SEER	EER	IEER WITH 2-SPEED
50FCQA04	1, 5, 6	1	3	36.2	3.1	14.3	11.8	—
50FCQA05	1, 5, 6	1	4	49.5	4.2	14.3	11.8	—
50FCQA06	1, 5, 6	1	5	60.5	5.1	14.3	11.8	—
50FCQM07	1, 5, 6	2	6	70.0	6.3	—	11.0	15.0

NOTE(S):

- Rated in accordance with AHRI Standards 210/240 (04-06 size) and 340/360 (07 size).
- Rating are based on:
Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temperature and 95°F (35°C) db outdoor air temperature.
- Units comply with ASHRAE 90.1-2016 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) requirements, as well as DOE-2018 (Department of Energy) Energy Standard for minimum SEER and EER and DOE-2023 Energy Standards for minimum SEER2 and EER2 requirements. ASHRAE 90.1 requires M1 ratings on 3-phase models.
- 50FCQ units comply with US Energy Policy Act (2005). To evaluate code compliance requirements, refer to state and local codes.

LEGEND

AHRI — Air Conditioning, Heating and Refrigeration Institute
EER — Energy Efficiency Ratio
IEER — Integrated Energy Efficiency Ratio
MBtuh — Btuh in Thousands
SEER — Seasonal Energy Efficiency Ratio



50FCQA/C 1-Phase AHRI Ratings — Heating Mode^{a,b,c,d}

UNIT	VOLTAGE	HSPF2	HIGH HEATING CAPACITY 2 (MBtuh)	HIGH HEAT COP 2	LOW HEATING CAPACITY 2 (MBtuh)	LOW HEAT COP 2
50FCQA04	3	6.7	34.0	3.6	17.0	2.10
50FCQC05	3	7.0	46.0	3.6	24.0	2.28
50FCQA06	3	7.0	56.5	3.7	30.0	2.30

NOTE(S):

- Rated in accordance with AHRI Standards 210/240 (04-06 size).
- Rating are based on:
Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temperature and 95°F (35°C) db outdoor air temperature.
 High Temperature Heating Ratings: 47°F (8°C) db, 43°F (6°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.
 Low Temperature Heating Ratings: 17°F (–8°C) db, 15°F (–9°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.
- Units comply with ASHRAE 90.1-2016 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) and DOE-2023 (Department of Energy) Energy Standard for minimum SEER2 and EER2 requirements.
- 50FCQ units comply with US Energy Policy Act (2005). To evaluate code compliance requirements, refer to state and local codes.

50FCQA/M 3-Phase AHRI Ratings — Heating Mode^{a,b,c,d}

UNIT	VOLTAGE	HSPF	HIGH HEATING CAPACITY (MBtuh)	HIGH HEAT COP	LOW HEATING CAPACITY (MBtuh)	LOW HEAT COP
50FCQA04	1, 5, 6	8.2	34.0	3.7	17.0	2.25
50FCQA05	1, 5, 6	8.2	46.0	3.7	23.6	2.28
50FCQA06	1, 5, 6	8.2	56.5	3.8	30.0	2.30
50FCQM07	1, 5, 6	—	64.5	3.6	35.0	2.40

NOTE(S):

- Rated in accordance with AHRI Standards 210/240 (04-06 size) and 340/360 (07 size).
- Rating are based on:
Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temperature and 95°F (35°C) db outdoor air temperature.
 High Temperature Heating Ratings: 47°F (8°C) db, 43°F (6°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.
 Low Temperature Heating Ratings: 17°F (–8°C) db, 15°F (–9°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.
- Units comply with ASHRAE 90.1-2016 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) requirements, as well as DOE-2018 (Department of Energy) Energy Standard for minimum SEER and EER and DOE-2023 Energy Standards for minimum SEER2 and EER2 requirements. ASHRAE 90.1 requires M1 ratings on 3-phase models.
- 50FCQ units comply with US Energy Policy Act (2005). To evaluate code compliance requirements, refer to state and local codes.

LEGEND

AHRI — Air Conditioning, Heating and Refrigeration Institute
COP — Coefficient of Performance
EER — Energy Efficiency Ratio
HSPF — Heating Seasonal Performance Factor
MBtuh — Btuh in Thousands
SEER — Seasonal Energy Efficiency Ratio



Sound Ratings Table^{a,b,c}

UNIT	COOLING STAGES	OUTDOOR SOUND (dB) AT 60 Hz								
		A-WEIGHTED	63	125	250	500	1000	2000	4000	8000
50FCQ*04	1	75.4	81.8	81.8	77.0	72.6	69.9	64.6	59.3	55.6
50FCQ*05	1	79.0	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3
50FCQ*06	1	79.0	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3
50FCQ*07	2	79.0	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3

NOTE(S):

- Outdoor sound data is measured in accordance with AHRI.
- Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environmental factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.
- A-weighted sound ratings filter out very high and very low frequencies, to better approximate the response of "average" human ear. A-weighted measurements for Carrier units are taken in accordance with AHRI.

LEGEND

dB — Decibel

Minimum - Maximum Airflow Ratings (cfm) — Cooling Units and Accessory Electric Heat

UNIT	COOLING				ELECTRIC HEAT ^a	
	Minimum Airflow (cfm)	Minimum 2-Speed Airflow (low speed)	Minimum 2-Speed Airflow (high speed)	Maximum Airflow (cfm)	Minimum Airflow (cfm)	Maximum Airflow (cfm)
50FCQ*04	900	—	—	1500	900	1500
50FCQ*05	1200	—	—	2000	1200	2000
50FCQ*06	1500	—	—	2500	1500	2500
50FCQ*07	1800	1200	1800	3000	1800	3000

NOTE(S):

- Electric heat modules are available as field-installed accessories for 50FCQ units.

50FCQ Physical Data

50FCQ UNIT	50FCQA04	50FCQA05	50FCQC05	50FCQA06	50FCQM07
NOMINAL TONS	3	4	4	5	6
BASE UNIT OPERATING WT (lb) ^a	467	473	473	584	589
REFRIGERATION SYSTEM					
No. Circuits/No. Compressors/Type	1 / 1/ Scroll	1 / 1/ Scroll	1 / 1 / Scroll	1 / 1 / Scroll	1 / 1 / 2-Stage Scroll
Puron® (R-410A) Charge (lb-oz)	8-0	11-13	11-12.8	14-13	16-0
Metering Device	Acutrol	Acutrol	Acutrol	Acutrol	TXV
High-Pressure Trip/Reset (psig)	630/505	630/505	630/505	630/505	630/505
Low-Pressure Trip/Reset (psig)	54/117	54/117	54/117	54/117	54/117
EVAPORATOR COIL (Indoor)					
Material (Tube/Fin)	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al
Coil Type	3/8 in. RTPF	3/8 in. RTPF	3/8 in. RTPF	3/8 in. RTPF	3/8 in. RTPF
Rows/FPI	3/15	3/15	3/15	4/15	4/15
Total Face Area (ft²)	5.5	5.5	5.5	7.3	7.3
Condensate Drain Connection Size	3/4 in.	3/4 in.	3/4 in.	3/4 in.	3/4 in.
CONDENSER COIL (Outdoor)					
Material	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al
Coil Type	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF
Rows/FPI	2/18	2/18	2/18	2/18	2/18
Total Face Area (ft²)	10.7	15.9	15.9	18.8	20.5
EVAPORATOR FAN AND MOTOR (Indoor)					
Standard Static 1 Phase					
Motor Qty/Drive Type	1/Direct	—	1/Direct	1/Direct	—
Max Cont Bhp	0.44	—	0.72	1.06	—
Rpm Range	189-1890	—	190-1900	215-2150	—
Fan Qty/Type	1/Vane Axial	—	1/Vane Axial	1/Vane Axial	—
Fan Diameter (in.)	16.6	—	16.6	16.6	—
Medium Static 1 Phase					
Motor Qty/Drive Type	1/Direct	—	1/Direct	1/Direct	—
Max Cont Bhp	0.71	—	1.06	1.44	—
Rpm Range	219-2190	—	217 - 2170	239-2390	—
Fan Qty/Type	1/Vane Axial	—	1/Vane Axial	1/Vane Axial	—
Fan Diameter (in.)	16.6	—	16.6	16.6	—
High Static 1 Phase					
Motor Qty/Drive Type	1/Direct	—	1/Direct	—	—
Max Cont Bhp	1.07	—	1.53	—	—
Rpm Range	249-2490	—	246-2460	—	—
Fan Qty/Type	1/Vane Axial	—	1/Vane Axial	—	—
Fan Diameter (in.)	16.6	—	16.6	—	—
Standard Static 3 Phase					
Motor Qty/Drive Type	1/Direct	1/Direct	—	1/Direct	1/Direct
Max Cont Bhp	0.44	0.72	—	1.06	1.31
Rpm Range	189-1890	190-1900	—	215-2150	230-2300
Fan Qty/Type	1/Vane Axial	1/Vane Axial	—	1/Vane Axial	1/Vane Axial
Fan Diameter (in.)	16.6	16.6	—	16.6	16.6
Medium Static 3 Phase					
Motor Qty/Drive Type	1/Direct	1/Direct	—	1/Direct	1/Direct
Max Cont Bhp	0.71	1.06	—	1.44	1.76
Rpm Range	219-2190	217-2170	—	239-2390	253-2530
Fan Qty/Type	1/Vane Axial	1/Vane Axial	—	1/Vane Axial	1/Vane Axial
Fan Diameter (in.)	16.6	16.6	—	16.6	16.6
High Static 3 Phase					
Motor Qty/Drive Type	1/Direct	1/Direct	—	1/Direct	1/Direct
Max Cont Bhp	1.07	1.96	—	2.43	2.43
Rpm Range	249-2490	266-2660	—	284-2836	284-2836
Fan Qty/Type	1/Vane Axial	1/Vane Axial	—	1/Vane Axial	1/Vane Axial
Fan Diameter (in.)	16.6	16.6	—	16.6	16.6

50FCQ Physical Data (cont)

50FCQ UNIT	50FCQA04	50FCQA05	50FCQC05	50FCQA06	50FCQM07
CONDENSER FAN AND MOTOR (Outdoor)					
Qty / Motor Drive Type	1 / Direct	1 / Direct	1 / Direct	1 / Direct	1 / Direct
Motor Hp/Rpm	1/4 / 1100	1/4 / 1100	1/4 / 1100	1/4 / 1100	1/4 / 1100
Fan Diameter (in.)	23	23	23	23	23
FILTERS					
RA Filter Qty / Size (in.)	2 / 16x25x2	2 / 16x25x2	2 / 16x25x2	4 / 16x16x2	4 / 16x16x2
OA Inlet Screen Qty / Size (in.)	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1

NOTE(S):

- Base unit operating weight does not include weight of options.

Options and accessories



ITEM	FACTORY- INSTALLED OPTION	FIELD- INSTALLED ACCESSORY
ELECTRIC HEAT		
Electric Resistance Heaters		X
Single Point Kits		X
CABINET		
Thru-the-Base Electrical Connections	X	X
Hinged Access Panels	X	
MERV-8 Filters	X	
COIL OPTIONS		
Cu/Cu Indoor and/or Outdoor Coils ^a	X	
Pre-Coated Outdoor Coils ^a	X	
Premium, E-Coated Outdoor Coils ^a	X	
CONDENSER PROTECTION		
Condenser Coil Hail Guard (louvered design) ^a	X	X
CONTROLS		
Thermostats, Temperature Sensors, and Subbases		X
SystemVu™ DDC Communicating Controller	X	
RTU Open Multi-Protocol Controller	X	
Smoke Detector (supply and/or return air)	X	X
Horn Strobe Annunciator ^b		X
Time Guard II Compressor Delay Control Circuit		X
Phase Monitor ^a	X	X
Condensate Overflow Switch	X	X
Fan/Filter Status Switch		X
ECONOMIZERS AND OUTDOOR AIR DAMPERS		
EconoMiSer® IV for Electromechanical Controls - Non FDD (Standard air leak damper models) ^{a, c, d}	X	X
EconoMiSer2 for DDC Controls (Standard and Ultra Low Leak air damper models) ^{a, e}	X	X
EconoMiSer X for Electromechanical Controls, complies with FDD (Standard and Ultra Low Leak damper models) ^{a, c, d}	X	X
Motorized Two-Position Outdoor-Air Damper ^a	X	X
Manual Outdoor-Air Damper (25% and 50%)		X
Barometric Relief ^f	X	X
Power Exhaust - prop design		X

ITEM	FACTORY- INSTALLED OPTION	FIELD- INSTALLED ACCESSORY
ECONOMIZER SENSORS AND IAQ DEVICES		
Single Dry Bulb Temperature Sensors ^g	X	X
Differential Dry Bulb Temperature Sensors ^g		X
Single Enthalpy Sensors ^g	X	X
Differential Enthalpy Sensors ^g		X
CO ₂ Sensor (wall, duct, or unit mounted) ^g	X	X
INDOOR MOTOR AND DRIVE		
Multiple Motor and Drive Packages	X	
LOW AMBIENT CONTROL		
Winter Start Kit ^h		X
Low Ambient Controller to -20°F (-29°C) ^h		X
POWER OPTIONS		
Convenience Outlet (powered) ^a	X	
Convenience Outlet (unpowered)	X	X
Non-Fused Disconnect ⁱ	X	
ROOF CURBS		
Roof Curb 14 in. (356 mm)		X
Roof Curb 24 in. (610 mm)		X

NOTE(S):

- Not available on single phase (-3 voltage code) models. Use field-installed accessory where available.
- Requires a field-supplied 24V transformer for each application. See price pages for details.
- FDD (Fault Detection and Diagnostic) capability per California Title 24 section 120.2.
- Available as a factory-installed option for 04-06 models only.
- Models with SystemVu and RTU Open DDC controls comply with California Title 24 Fault Detection and Diagnostic (FDD).
- Included with economizer.
- Sensors used to optimize economizer performance.
- See application data for assistance.
- Non-fused disconnect switch cannot be used when unit electrical rating exceeds:
 - 208-230/1/60 and 208-230/3/60 = 80 amps (FLA).
 - 480/3/60 and 575/3/60 = 80 amps (FLA).
 Carrier RTUBuilder automatically selects the amp limitations.

Factory-installed options

Economizer (dry-bulb or enthalpy)

Economizers save money. They bring in fresh, outside air for ventilation; and provide cool outside air to cool your building. This is the preferred method of low-ambient cooling. When coupled to CO₂ sensors, economizers can provide even more savings by coupling the ventilation air to only that amount required.

Economizers are available, installed and tested by the factory, with either enthalpy or dry-bulb temperature inputs. Additional sensors are available as accessories to optimize the economizers. Economizers include a powered exhaust system to help equalize building pressures.

Economizers include gravity controlled barometric relief that helps equalize building pressure and ambient air pressures. This can be a cost effective solution to prevent building pressurization. Economizers are available in Ultra Low Leak and standard low leak versions. Economizers can be factory-installed or easily field-installed.

Unit mounted CO₂ sensor

The CO₂ sensor works with the economizer to intake only the correct amount of outside air for ventilation. As occupants fill your building, the CO₂ sensor detects their presence through increasing CO₂ levels, and opens the economizer appropriately. When the occupants leave, the CO₂ levels decrease, and the sensor appropriately closes the economizer. This intelligent control of the ventilation air, called demand controlled ventilation (DCV), reduces the overall load on the rooftop, saving money. It is also available as a field-installed accessory.

Smoke detector (supply and/or return air)

Trust the experts. Smoke detectors make your application safer and your job easier. Carrier smoke detectors immediately shut down the rooftop unit when smoke is detected. They are available, installed by the factory, for supply air, return air, or both.

Thru-the-base connections

Thru-the-base connections, available as a factory option, are necessary to ensure proper connection and seal when routing wire and piping through the rooftop's basepan and curb. These couplings eliminate roof penetration and should be considered for main power lines, as well as control power.

Hinged access panels

Allows access to unit's major components with specifically designed hinged access panels. Panels are filter, control box access indoor fan motor access.

Cu/Cu (indoor) coils

Copper fins and copper tubes are mechanically bonded to copper tubes and copper tube sheets. A polymer strip prevents coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.

E-coated (outdoor and indoor) coils

A flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.

Coating process shall ensure complete coil encapsulation of tubes, fins and headers.

Pre-coated outdoor coils

A durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments. The coating minimizes galvanic action between dissimilar metals. Coating is applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube.

Condenser coil hail guard

Sleek, louvered panels protect the condenser coil from hail damage, foreign objects, and incidental contact.

Single enthalpy sensor

Prevents the wheel from rotating if the outside air conditions are acceptable for free cooling. Both exhaust and supply blowers will remain on.

Convenience outlet (powered or un-powered)

Reduce service and/or installation costs by including a convenience outlet in your specification. Carrier will install this service feature at our factory. Provides a convenient, 15 amp, 115v GFCI receptacle with "Wet in Use" cover. The "powered" option allows the installer to power the outlet from the line side of the disconnect or load side as required by code. The "unpowered" option is to be powered from a separate 115/120v power source.

The unpowered convenience outlet is available as a 15 amp factory-installed option or a 20 amp field-installed accessory.

Non-fused disconnect

This OSHA-compliant, factory-installed, safety switch allows a service technician to locally secure power to the rooftop. When selecting a factory-installed non-fused disconnect, note they are sized for the unit as ordered from the factory. The sizing of these do not accommodate field-installed items such as power exhaust devices, etc. If field installing electric heat with factory-installed non-fused disconnect switch, a single point kit may or may not be required.

SystemVu™ controller

Carrier's SystemVu controller is an optional factory-installed and tested controller.

This controller takes on a whole new approach to provide an intuitive, intelligent controller that not only monitors and controls the unit, but also provides linkage to multiple building automation systems.

Each SystemVu controller makes it easy to set up, service, troubleshoot, gain historical data, generate reports and provide comfort only Carrier is noted for.

Key features include:

- Easy to read back lit four line text screen for superior visibility.
- Quick operational condition LEDs of: Run, Alert, and Fault.
- Simple navigation with large keypad buttons of: Navigation arrows, Test, Back, Enter and Menu.
- Capable of being controlled with a conventional thermostat, space sensor or build automation system.

- Service capabilities include:
 - Auto run test
 - Manual run test
 - Component run hours and starts
 - Commissioning reports
 - Data logging
- Full range of diagnosis:
 - Read refrigerant pressures without the need of gauges
 - Sensor faults
 - Compressor reverse rotation
 - Economizer diagnostics that meet California Title 24 requirements
- Quick data transfer via USB port:
 - Unit configuration uploading/downloading
 - Data logging
 - Software upgrades
- Built in capacity for:
 - i-Vu® open systems
 - BACnet systems
 - CCN systems
- Configuration and alarm point capability:
 - Contain over 100 alarm codes
 - Contain over 260 status, troubleshooting, diagnostic and maintenance points
 - Contain over 270 control configuration setpoints

RTU Open, multi-protocol controller

Connect the rooftop to an existing BAS (building automation system) without needing complicated translators or adapter modules using the RTU Open controller. The RTU Open controller speaks the 4 most common building automation system languages (BACnet, Modbus, Johnson Controls N2, and LonWorks). Use this controller when you have an existing BAS. Besides the 4 protocols, it also communicates with a Carrier Open system (i-Vu and VVT®).

Condensate overflow switch

This sensor and related controller monitors the condensate level in the drain pan and shuts down compression operation when overflow conditions occur. It includes:

- Indicator light — solid red (more than 10 seconds on water contact — compressors disabled), blinking red (sensor disconnected)
- 10-second delay to break — eliminates nuisance trips from splashing or waves in pan (sensor needs 10 seconds of constant water contact before tripping)
- Disables the compressor(s) operation when condensate plug is detected, but still allows fans to run for economizer.

Power exhaust with barometric relief

Superior internal building pressure control. This field-installed accessory may eliminate the need for costly, external pressure control fans.

MERV-8 return air filters

This factory option upgrades the return air filters from standard unit filters to high efficiency MERV-8 filters. Non-woven MERV-8 filter media with high strength, moisture-resistant frame. Filter media is securely fastened inside the filter frame on all four sides.

Field-installed accessories

Condenser coil hail guard

Sleek, louvered panels protect the condenser coil from hail damage, foreign objects, and incidental contact. This can be purchased as a factory-installed option or as a field-installed accessory.

Differential enthalpy sensor

The differential enthalpy sensor is comprised of an outdoor and return air enthalpy sensors to provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.

Wall or duct mounted CO₂ sensor

The IAQ sensor shall be available in duct or wall mount. The sensor provides demand ventilation indoor air quality (IAQ) control.

Phase monitor protection

The Phase Monitor Control will monitor the sequence of three phase electrical system to provide a phase reversal protection; and monitor the three phase voltage inputs to provide a phase loss protection for the three phase device. It will work on either a Delta or Wye power connection.

Winter start kit

The winter start kit by Carrier extends the low ambient limit of your rooftop to 25°F (–4°C). The kit bypasses the low pressure switch, preventing nuisance tripping of the low pressure switch. Other low ambient precautions may still be prudent.

Low ambient controller

The low ambient controller is a head pressure controller kit that is designed to maintain the unit's condenser head pressure during periods of low ambient cooling operation. This device should be used as an alternative to economizer free cooling when economizer usage is either not appropriate or desired. The low ambient controller will either cycle the outdoor fan motors or operate them at reduced speed to maintain the unit operation, depending on the model. This controller allows cooling operation down to –20°F (–29°C) ambient conditions.

Roof curb (14 in./356 mm or 24 in./610 mm)

Full perimeter roof curb with exhaust capability provides separate air streams for energy recovery from the exhaust air without supply air contamination.

Fan/filter status switch

Monitors static pressure across supply and exhaust filters and provides indication when filters become clogged.

Power exhaust

Superior internal building pressure control. This field-installed accessory may eliminate the need for costly, external pressure control fans.

Manual OA damper

Manual outdoor air dampers are an economical way to bring in ventilation air. The dampers are available in 25% and 50% versions.

NOTE: See application tip “ROOFTOP-18-01” prior to use of this damper on 07 size models.

Options and accessories (cont)



Motorized two-position damper

The Carrier two-position, motorized outdoor air damper admits up to 100% outside air. Using reliable, gear-driven technology, the two-position damper opens to allow ventilation air and closes when the rooftop stops, stopping unwanted infiltration.

NOTE: See application tip “ROOFTOP-18-01” prior to use of this damper on 07 size models.

Electric heaters and single point kits

Carrier offers a full-line of field-installed accessory heaters. The heaters are very easy to use, install and are all pre-engineered and certified.

Time Guard II control circuit

This accessory protects your compressor by preventing short-cycling in the event of some other failure, prevents the compressor from restarting for 30 seconds after stopping. Not required with SystemVu™ controller, RTU Open controller, or authorized commercial thermostats.

Options and Accessory Weights^a

OPTION / ACCESSORY NAME	50FCQ UNIT WEIGHT							
	04		05		06		07	
	lb	kg	lb	kg	lb	kg	lb	kg
Power Exhaust — Vertical	51	23	51	23	51	23	51	23
Power Exhaust — Horizontal	39	18	39	18	39	18	39	18
EconoMi\$er® (X, IV or 2)	35	16	35	16	35	16	35	16
Two-Position Damper	39	18	39	18	39	18	58	26
Manual Damper	12	5	12	5	12	5	18	8
Hail Guard (louvered)	13	6	13	6	13	6	17	8
Cu/Cu Condenser Coil	37	17	74	34	74	34	95	43
Cu/Cu Condenser and Evaporator Coils	75	34	112	51	112	51	165	75
Roof Curb (14 in. curb)	95	43	95	43	95	43	95	43
Roof Curb (24 in. curb)	150	68	150	68	150	68	150	68
CO ₂ Sensor	2	1	2	1	2	1	2	1
Optional Indoor Motor/Drive	10	5	10	5	10	5	15	7
Low Ambient Controller	9	4	9	4	9	4	9	4
Winter Start Kit	5	2	5	2	5	2	5	2
Return Air Smoke Detector	7	3	7	3	7	3	7	3
Supply Air Smoke Detector	7	3	7	3	7	3	7	3
Fan Filter Switch	2	1	2	1	2	1	2	1
Non-Fused Disconnect	15	7	15	7	15	7	15	7
Powered Convenience Outlet	36	16	36	16	36	16	36	16
Unpowered Convenience Outlet	4	2	4	2	4	2	4	2
Enthalpy Sensor	2	1	2	1	2	1	2	1
Differential Enthalpy Sensor	3	1	3	1	3	1	3	1

NOTE(S):

a. Where multiple variations are available, the heaviest combination is listed.

50FCQ*04-07 Base Unit Dimensions

NOTES:

1. DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE IN MILLIMETERS.
2.  CENTER OF GRAVITY
3.  DIRECTION OF AIR FLOW
4.  ALL VIEW DRAWN USING 3RD ANGLE

UNIT	J	K
50FCQ*04	33 3/8 [847]	7 7/8 [200]
50FCQ*05	33 3/8 [847]	14 7/8 [377]
50FCQ*06	41 3/8 [1051]	18 5/8 [472]
50FCQ*07	41 3/8 [1051]	18 5/8 [472]

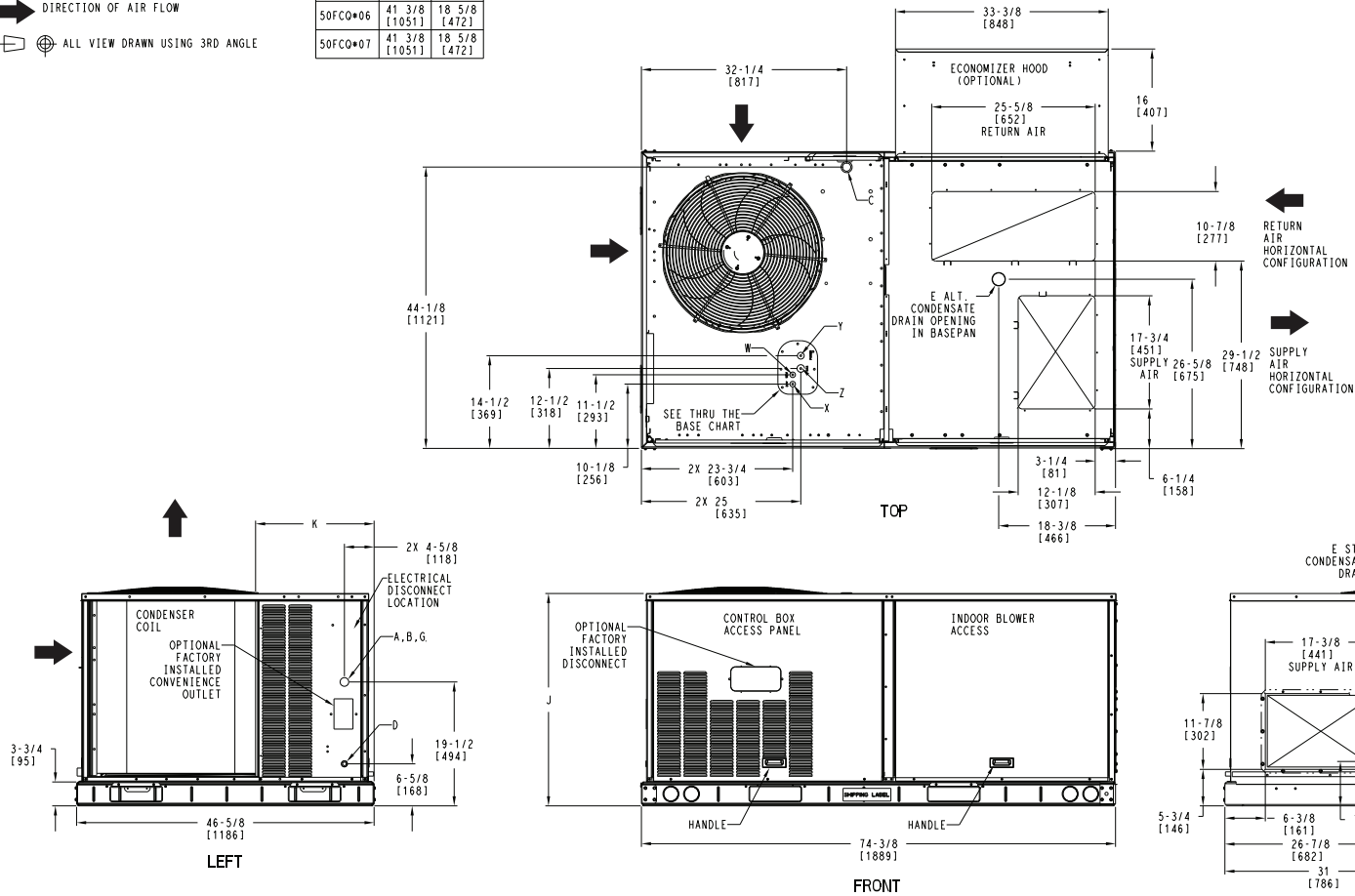


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CONNECTION SIZES	
A	1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B	2" [51] DIA POWER SUPPLY KNOCKOUT
C	1 3/4" [44] DIA GAUGE ACCESS PLUG
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPW008A00, 009A00		
	THREADED CONDUIT SIZE	WIRE USE REQ'D HOLE SIZES (MAX.)
W	1/2"	115V 7/8" [22.2]
X	1/2"	24V 7/8" [22.2]
Y *	3/4"	POWER 1 1/8" [28.6]
** (009A00)	1/2" FPT	GAS 1 1/8" [28.6]
FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED		
* SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE		
** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.		

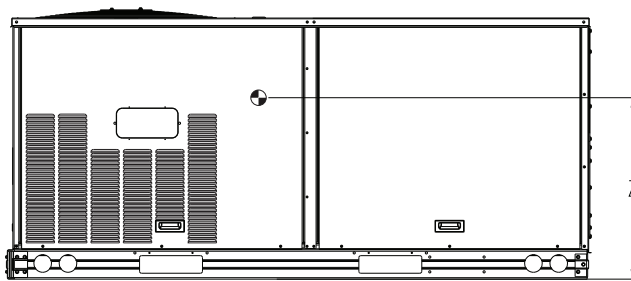
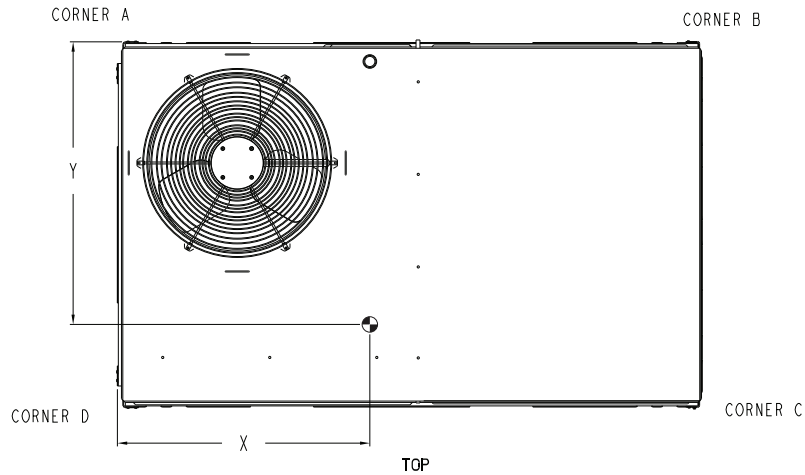


ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50FCQ 04-07 SINGLE PACKAGE HEAT PUMP	48TC003348	REV
U.S. ECCN: NSR	1 OF 3	08/15/19	-			-

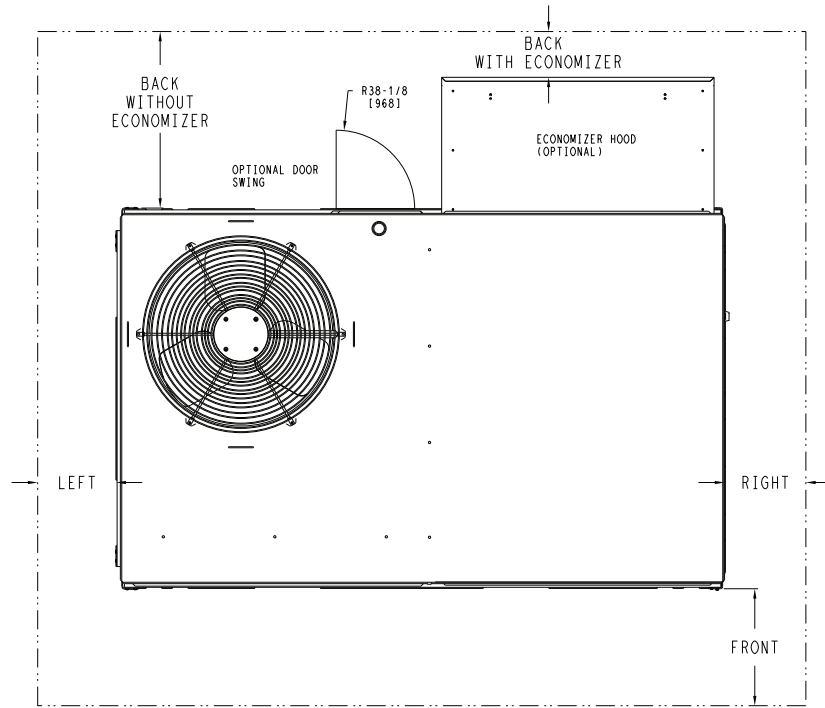
50FCQ*04-07 Base Unit Dimensions (cont)

UNIT	STD. UNIT WEIGHT*		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		HEIGHT
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
50FCQ*04	467	212	126	57	118	53	108	49	115	52	36 [914]	22 3/8 [568]	16 1/8 [410]
50FCQ*05	473	215	127	58	119	54	110	50	117	53	36 [914]	22 3/8 [568]	16 1/8 [410]
50FCQ*06	584	265	160	72	145	66	133	60	146	66	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]
50FCQ*07	589	267	161	73	146	66	134	61	147	67	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.



FRONT



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NOTE:

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

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

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50FCQ 04-07 SINGLE PACKAGE HEAT PUMP	REV
U.S. ECCN:NSR	2 OF 3	08/15/19	-	48TC003348	-

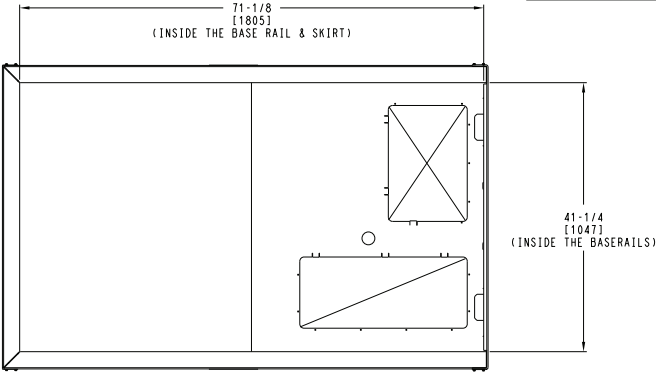
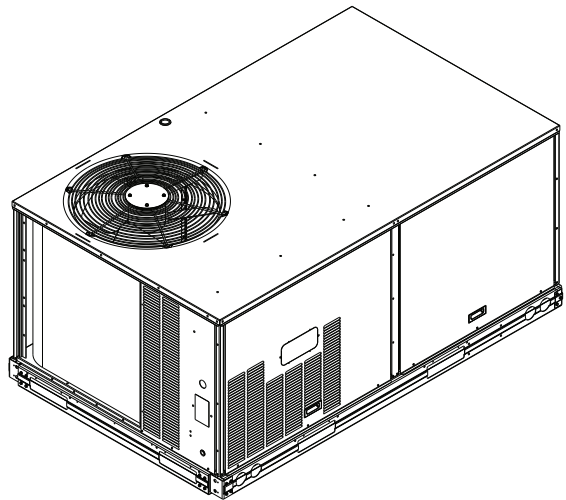


50FCQ*04-07 Base Unit Dimensions (cont)

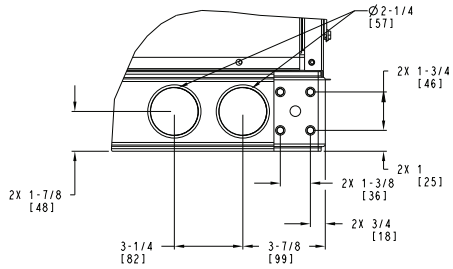
Carrier
United Technologies

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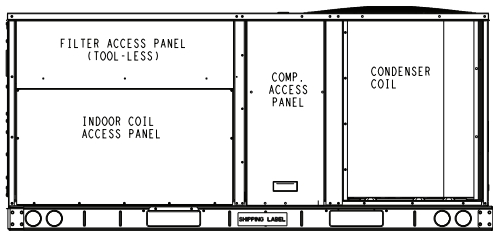
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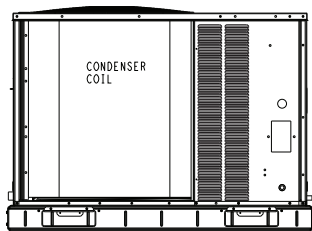
INSIDE BASERAIL DIMENSIONS
BOTTOM



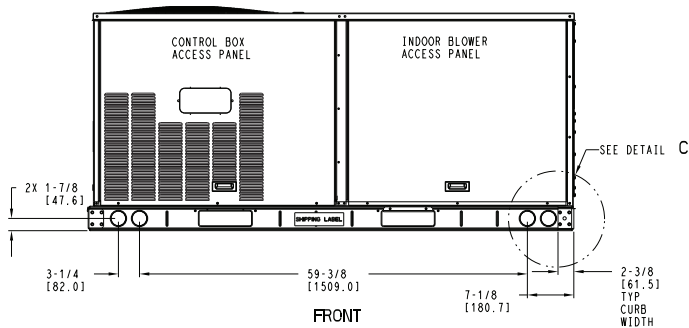
DETAIL C
TYP 4 PLCS



BACK



LEFT

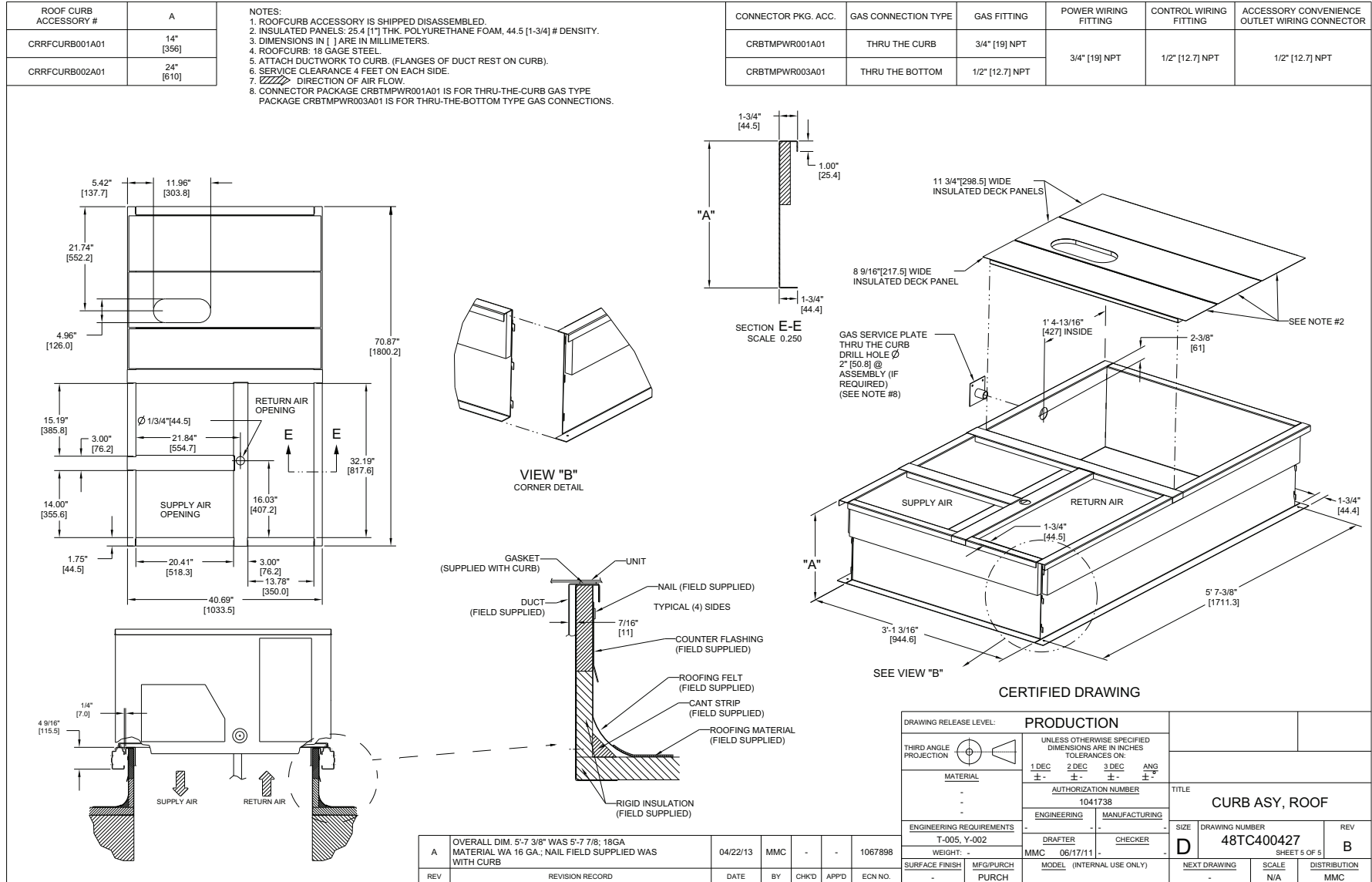


FRONT

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50FCQ 04-07 SINGLE PACKAGE HEAT PUMP	48TC003348	REV
U.S. ECCN:NSR	3 OF 3	08/15/19	-			-



Roof Curb Dimensions — 50FCQ 04-07



50FCQA04 Single Stage Cooling Capacities^a

50FCQA04				AMBIENT TEMPERATURE (F)											
				85			95			105			115		
				EA (db)			EA (db)			EA (db)			EA (db)		
				75	80	85	75	80	85	75	80	85	75	80	85
900 Cfm	EA (wb)	58	TC	30.8	30.8	34.8	28.8	28.8	32.6	26.6	26.6	30.2	24.2	24.2	27.5
			SHC	26.7	30.8	34.8	24.9	28.8	32.6	23.0	26.6	30.2	20.9	24.2	27.5
		62	TC	33.0	33.0	33.9	30.2	30.2	32.4	27.3	27.3	30.8	24.3	24.3	28.7
			SHC	24.6	29.2	33.9	23.1	27.8	32.4	21.6	26.2	30.8	19.8	24.3	28.7
		67	TC	37.4	37.4	37.4	34.7	34.7	34.7	31.5	31.5	31.5	28.2	28.2	28.2
			SHC	20.6	25.2	29.8	19.4	24.0	28.6	17.8	22.5	27.1	16.3	20.9	25.5
		72	TC	40.3	40.3	40.3	38.7	38.7	38.7	36.1	36.1	36.1	32.9	32.9	32.9
			SHC	15.8	20.2	24.5	15.0	19.5	24.0	13.9	18.4	23.0	12.5	17.0	21.6
		76	TC	—	41.4	41.4	—	40.4	40.4	—	38.5	38.5	—	35.9	35.9
			SHC	—	16.2	21.0	—	15.5	20.1	—	14.6	19.1	—	13.5	17.9
1050 Cfm	EA (wb)	58	TC	33.0	33.0	37.3	30.7	30.7	34.8	28.4	28.4	32.2	25.9	25.9	29.5
			SHC	28.6	33.0	37.3	26.7	30.7	34.8	24.6	28.4	32.2	22.4	25.9	29.5
		62	TC	34.4	34.4	37.4	31.4	31.4	35.7	29.0	29.0	32.2	26.0	26.0	30.7
			SHC	26.8	32.1	37.4	25.2	30.4	35.7	22.8	27.5	32.2	21.2	26.0	30.7
		67	TC	38.5	38.5	38.5	36.0	36.0	36.0	32.8	32.8	32.8	29.2	29.2	29.2
			SHC	21.9	27.1	32.3	20.8	26.1	31.4	19.3	24.6	29.9	17.7	23.0	28.3
		72	TC	40.7	40.7	40.7	39.4	39.4	39.4	37.1	37.1	37.1	33.9	33.9	33.9
			SHC	16.1	20.9	25.7	15.5	20.5	25.5	14.4	19.6	24.8	13.1	18.4	23.6
		76	TC	—	41.7	41.7	—	40.8	40.8	—	39.0	39.0	—	36.5	36.5
			SHC	—	16.5	21.6	—	15.9	20.9	—	15.1	20.0	—	14.0	19.0
1200 Cfm	EA (wb)	58	TC	34.9	34.9	39.5	32.6	32.6	36.9	30.1	30.1	34.1	27.4	27.4	31.2
			SHC	30.3	34.9	39.5	28.3	32.6	36.9	26.0	30.1	34.1	23.7	27.4	31.2
		62	TC	35.5	35.5	40.5	32.6	32.6	38.4	30.1	30.1	35.5	27.5	27.5	32.4
			SHC	28.7	34.6	40.5	26.9	32.6	38.4	24.7	30.1	35.5	22.5	27.5	32.4
		67	TC	39.2	39.2	39.2	37.0	37.0	37.0	33.8	33.8	33.8	30.1	30.1	30.9
			SHC	22.9	28.6	34.3	22.0	27.9	33.9	20.6	26.6	32.6	19.0	25.0	30.9
		72	TC	41.1	41.1	41.1	39.9	39.9	39.9	37.7	37.7	37.7	34.7	34.7	34.7
			SHC	16.4	21.5	26.6	15.8	21.3	26.7	14.9	20.6	26.3	13.6	19.5	25.4
		76	TC	—	41.9	41.9	—	41.1	41.1	—	39.4	39.4	—	36.9	36.9
			SHC	—	16.8	22.2	—	16.3	21.6	—	15.5	20.9	—	14.5	19.9
1350 Cfm	EA (wb)	58	TC	36.4	36.4	41.2	34.2	34.2	38.7	31.5	31.5	35.7	28.7	28.7	32.6
			SHC	31.7	36.4	41.2	29.7	34.2	38.7	27.3	31.5	35.7	24.9	28.7	32.6
		62	TC	36.5	36.5	42.9	34.2	34.2	40.2	31.6	31.6	37.2	28.8	28.8	34.0
			SHC	30.2	36.5	42.9	28.2	34.2	40.2	26.0	31.6	37.2	23.6	28.8	34.0
		67	TC	39.7	39.7	39.7	37.7	37.7	37.7	34.6	34.6	35.2	30.8	30.8	33.5
			SHC	23.7	29.9	36.1	23.1	29.6	36.1	21.9	28.5	35.2	20.2	26.9	33.5
		72	TC	41.3	41.3	41.3	40.2	40.2	40.2	38.1	38.1	38.1	35.2	35.2	35.2
			SHC	16.6	22.0	27.5	16.1	21.9	27.8	15.2	21.4	27.6	14.1	20.5	27.0
		76	TC	—	42.0	42.0	—	41.3	41.3	—	39.6	39.6	—	37.1	37.1
			SHC	—	17.0	22.7	—	16.5	22.2	—	15.8	21.6	—	14.8	20.8
1500 Cfm	EA (wb)	58	TC	37.6	37.6	42.5	35.5	35.5	40.1	32.8	32.8	37.2	29.9	29.9	33.9
			SHC	32.8	37.6	42.5	30.8	35.5	40.1	28.5	32.8	37.2	25.9	29.9	33.9
		62	TC	37.7	37.7	44.2	35.5	35.5	41.7	32.9	32.9	38.7	29.9	29.9	35.3
			SHC	31.1	37.7	44.2	29.3	35.5	41.7	27.1	32.9	38.7	24.6	29.9	35.3
		67	TC	40.0	40.0	40.0	38.2	38.2	38.2	35.2	35.2	37.5	31.4	31.4	35.9
			SHC	24.4	31.0	37.6	24.1	31.1	38.2	23.0	30.2	37.5	21.4	28.7	35.9
		72	TC	41.4	41.4	41.4	40.4	40.4	40.4	38.4	38.4	38.4	35.6	35.6	35.6
			SHC	16.7	22.4	28.2	16.3	22.5	28.8	15.5	22.2	28.8	14.5	21.4	28.4
		76	TC	—	42.1	42.1	—	41.5	41.5	—	39.8	39.8	—	37.3	37.3
			SHC	—	17.2	23.1	—	16.8	22.8	—	16.1	22.2	—	15.2	21.5

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

LEGEND

—	Do Not Operate
Cfm	Cubic Feet Per Minute (Supply Air)
EA (db)	Entering Air Temperature (dry bulb)
EA (wb)	Entering Air Temperature (wet bulb)
SHC	Sensible Heat Capacity (1000 Btuh) Gross
TC	Total Capacity (1000 Btuh) Gross

50FCQC05 Single Stage Cooling Capacities — 1 Phase^a

50FCQC05				AMBIENT TEMPERATURE (F)											
				85			95			105			115		
				EA (db)			EA (db)			EA (db)			EA (db)		
				75	80	85	75	80	85	75	80	85	75	80	85
1200 Cfm	EA (wb)	58	TC	43.4	43.4	48.9	41.2	41.2	46.4	38.7	38.7	43.6	36.0	36.0	40.5
			SHC	37.9	43.4	48.9	36.0	41.2	46.4	33.8	38.7	43.6	31.5	36.0	40.5
		62	TC	45.7	45.7	46.6	43.1	43.1	45.5	39.8	39.8	43.9	36.1	36.1	41.8
			SHC	34.4	40.5	46.6	33.2	39.4	45.5	31.7	37.8	43.9	29.9	35.8	41.8
		67	TC	50.7	50.7	50.7	48.1	48.1	48.1	45.0	45.0	45.0	41.1	41.1	41.1
			SHC	28.5	34.5	40.5	27.4	33.5	39.5	26.2	32.3	38.4	24.7	30.8	36.9
		72	TC	55.5	55.5	55.5	53.1	53.1	53.1	50.2	50.2	50.2	46.6	46.6	46.6
			SHC	22.3	28.1	33.8	21.4	27.2	33.0	20.3	26.2	32.1	19.0	24.9	30.9
		76	TC	—	58.9	58.9	—	56.4	56.4	—	53.6	53.6	—	50.6	50.6
			SHC	—	22.7	29.3	—	21.8	28.4	—	21.0	26.3	—	20.1	25.6
1400 Cfm	EA (wb)	58	TC	45.9	45.9	51.7	43.8	43.8	49.4	41.2	41.2	46.3	38.3	38.3	43.1
			SHC	40.1	45.9	51.7	38.3	43.8	49.4	36.0	41.2	46.3	33.5	38.3	43.1
		62	TC	47.3	47.3	51.1	44.6	44.6	49.8	41.1	41.1	48.1	38.5	38.5	44.4
			SHC	37.1	44.1	51.1	35.9	42.8	49.8	34.2	41.1	48.1	31.7	38.1	44.4
		67	TC	52.2	52.2	52.2	49.6	49.6	49.6	46.4	46.4	46.4	42.4	42.4	42.4
			SHC	30.1	37.0	43.9	29.1	36.1	43.0	27.9	34.9	41.9	26.4	33.4	40.5
		72	TC	56.8	56.8	56.8	54.3	54.3	54.3	51.4	51.4	51.4	47.9	47.9	47.9
			SHC	22.9	29.5	36.1	22.0	28.7	35.4	20.9	27.7	34.6	19.7	26.6	33.5
		76	TC	—	59.9	59.9	—	57.5	57.5	—	54.6	54.6	—	51.4	51.4
			SHC	—	23.3	29.0	—	22.6	28.7	—	21.7	28.1	—	20.7	27.3
1600 Cfm	EA (wb)	58	TC	48.1	48.1	54.2	45.9	45.9	51.6	43.2	43.2	48.6	40.2	40.2	45.3
			SHC	42.0	48.1	54.2	40.1	45.9	51.6	37.7	43.2	48.6	35.2	40.2	45.3
		62	TC	48.7	48.7	55.1	46.2	46.2	51.8	43.2	43.2	50.5	40.3	40.3	47.0
			SHC	39.5	47.3	55.1	37.3	44.6	51.8	36.0	43.2	50.5	33.5	40.3	47.0
		67	TC	53.4	53.4	53.4	50.6	50.6	50.6	47.5	47.5	47.5	43.3	43.3	44.0
			SHC	31.6	39.4	47.1	30.6	38.4	46.2	29.5	37.5	45.4	28.0	36.0	44.0
		72	TC	57.7	57.7	57.7	55.2	55.2	55.2	52.3	52.3	52.3	48.8	48.8	48.8
			SHC	23.3	30.7	38.1	22.4	30.0	37.5	21.4	29.1	36.7	20.3	28.1	35.9
		76	TC	—	60.8	60.8	—	58.2	58.2	—	55.3	55.3	—	52.1	52.1
			SHC	—	23.9	30.7	—	23.1	30.2	—	22.2	29.5	—	21.3	28.7
1800 Cfm	EA (wb)	58	TC	49.8	49.8	56.1	47.7	47.7	53.7	45.0	45.0	50.7	41.8	41.8	47.1
			SHC	43.5	49.8	56.1	41.6	47.7	53.7	39.3	45.0	50.7	36.5	41.8	47.1
		62	TC	50.4	50.4	57.2	47.7	47.7	55.6	45.1	45.1	52.7	41.8	41.8	48.9
			SHC	41.0	49.1	57.2	39.6	47.6	55.6	37.5	45.1	52.7	34.8	41.8	48.9
		67	TC	54.3	54.3	54.3	51.6	51.6	51.6	48.4	48.4	48.6	44.0	44.0	47.2
			SHC	33.0	41.5	50.1	32.1	40.8	49.4	31.0	39.8	48.6	29.5	38.4	47.2
		72	TC	58.5	58.5	58.5	55.9	55.9	55.9	52.9	52.9	52.9	49.5	49.5	49.5
			SHC	23.7	31.8	40.0	22.8	31.1	39.5	21.8	30.3	38.7	20.8	29.4	38.0
		76	TC	—	61.5	61.5	—	58.9	58.9	—	55.8	55.8	—	52.5	52.5
			SHC	—	24.4	32.2	—	23.6	31.5	—	22.7	30.8	—	21.7	30.0
2000 Cfm	EA (wb)	58	TC	51.3	51.3	57.8	49.1	49.1	55.3	46.5	46.5	52.4	43.1	43.1	48.6
			SHC	44.8	51.3	57.8	42.9	49.1	55.3	40.7	46.5	52.4	37.7	43.1	48.6
		62	TC	51.8	51.8	58.6	49.2	49.2	57.4	46.6	46.6	54.4	43.2	43.2	50.5
			SHC	42.0	50.3	58.6	40.9	49.2	57.4	38.7	46.6	54.4	35.9	43.2	50.5
		67	TC	54.9	54.9	54.9	52.2	52.2	52.4	49.0	49.0	51.6	44.7	44.7	50.4
			SHC	34.2	43.5	52.9	33.4	42.9	52.4	32.4	42.0	51.6	31.0	40.7	50.4
		72	TC	59.0	59.0	59.0	56.4	56.4	56.4	53.4	53.4	53.4	50.0	50.0	50.0
			SHC	24.0	32.9	41.8	23.1	32.2	41.3	22.2	31.4	40.6	21.2	30.6	40.0
		76	TC	—	61.9	61.9	—	59.3	59.3	—	56.3	56.3	—	52.9	52.9
			SHC	—	24.7	33.3	—	24.0	32.7	—	23.1	32.0	—	22.1	31.1

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

LEGEND

—	Do Not Operate
Cfm	Cubic Feet Per Minute (Supply Air)
EA (db)	Entering Air Temperature (dry bulb)
EA (wb)	Entering Air Temperature (wet bulb)
SHC	Sensible Heat Capacity (1000 Btuh) Gross
TC	Total Capacity (1000 Btuh) Gross

50FCQA05 Single Stage Cooling Capacities — 3 Phase^a

50FCQA05				AMBIENT TEMPERATURE (F)											
				85			95			105			115		
				EA (db)			EA (db)			EA (db)			EA (db)		
				75	80	85	75	80	85	75	80	85	75	80	85
1200 Cfm	EA (wb)	58	TC	42.2	42.2	47.7	39.8	39.8	45.0	37.1	37.1	42.0	34.1	34.1	38.6
			SHC	36.7	42.2	47.7	34.6	39.8	45.0	32.2	37.1	42.0	29.6	34.1	38.6
		62	TC	44.9	44.9	45.7	41.6	41.6	44.1	38.1	38.1	42.3	34.2	34.2	40.1
			SHC	33.6	39.6	45.7	31.9	38.0	44.1	30.2	36.3	42.3	28.1	34.1	40.1
		67	TC	50.1	50.1	50.1	47.1	47.1	47.1	43.3	43.3	43.3	39.3	39.3	39.3
			SHC	27.9	33.9	39.8	26.5	32.5	38.5	24.8	30.9	36.9	23.1	29.2	35.3
		72	TC	55.1	55.1	55.1	52.4	52.4	52.4	49.1	49.1	49.1	44.8	44.8	44.8
			SHC	22.0	27.7	33.4	20.8	26.6	32.4	19.4	25.3	31.1	17.7	23.6	29.5
		76	TC	—	58.7	58.7	—	56.0	56.0	—	53.1	53.1	—	49.5	49.5
			SHC	—	22.6	29.2	—	21.5	28.1	—	20.5	25.6	—	19.0	24.2
1400 Cfm	EA (wb)	58	TC	45.1	45.1	50.9	42.4	42.4	47.9	39.6	39.6	44.8	36.4	36.4	41.2
			SHC	39.3	45.1	50.9	36.9	42.4	47.9	34.4	39.6	44.8	31.7	36.4	41.2
		62	TC	46.7	46.7	50.3	43.2	43.2	48.5	40.3	40.3	43.9	36.9	36.9	41.6
			SHC	36.4	43.4	50.3	34.6	41.5	48.5	31.5	37.7	43.9	29.5	35.6	41.6
		67	TC	51.7	51.7	51.7	48.7	48.7	48.7	44.8	44.8	44.8	40.5	40.5	40.5
			SHC	29.6	36.5	43.3	28.4	35.3	42.3	26.7	33.7	40.7	24.9	31.9	39.0
		72	TC	56.5	56.5	56.5	53.7	53.7	53.7	50.5	50.5	50.5	46.3	46.3	46.3
			SHC	22.7	29.3	35.9	21.5	28.2	35.0	20.2	27.0	33.9	18.5	25.4	32.3
		76	TC	—	59.9	59.9	—	57.2	57.2	—	54.1	54.1	—	50.7	50.7
			SHC	—	23.4	28.8	—	22.4	28.5	—	21.3	27.7	—	20.0	26.6
1600 Cfm	EA (wb)	58	TC	47.3	47.3	53.4	44.6	44.6	50.4	41.6	41.6	47.0	38.4	38.4	43.4
			SHC	41.2	47.3	53.4	38.8	44.6	50.4	36.2	41.6	47.0	33.4	38.4	43.4
		62	TC	48.1	48.1	54.4	44.9	44.9	51.8	41.9	41.9	47.9	38.4	38.4	45.2
			SHC	38.8	46.6	54.4	36.7	44.2	51.8	33.9	40.9	47.9	31.7	38.4	45.2
		67	TC	52.9	52.9	52.9	49.9	49.9	49.9	46.0	46.0	46.0	41.5	41.5	42.5
			SHC	31.2	38.9	46.7	30.0	37.8	45.7	28.4	36.4	44.3	26.6	34.5	42.5
		72	TC	57.5	57.5	57.5	54.8	54.8	54.8	51.5	51.5	51.5	47.3	47.3	47.3
			SHC	23.3	30.7	38.1	22.1	29.7	37.2	20.9	28.6	36.3	19.3	27.1	34.9
		76	TC	—	60.9	60.9	—	58.1	58.1	—	55.0	55.0	—	51.5	51.5
			SHC	—	24.1	30.9	—	23.1	30.2	—	22.0	29.3	—	20.9	28.4
1800 Cfm	EA (wb)	58	TC	49.2	49.2	55.5	46.7	46.7	52.7	43.4	43.4	49.0	40.0	40.0	45.3
			SHC	42.9	49.2	55.5	40.6	46.7	52.7	37.7	43.4	49.0	34.8	40.0	45.3
		62	TC	49.7	49.7	56.9	47.1	47.1	53.1	43.4	43.4	50.9	40.1	40.1	47.1
			SHC	40.5	48.7	56.9	37.9	45.5	53.1	35.9	43.4	50.9	33.1	40.1	47.1
		67	TC	53.8	53.8	53.8	50.8	50.8	50.8	46.9	46.9	47.7	42.3	42.3	45.8
			SHC	32.6	41.2	49.7	31.5	40.2	48.9	30.0	38.8	47.7	28.1	36.9	45.8
		72	TC	58.3	58.3	58.3	55.5	55.5	55.5	52.3	52.3	52.3	48.1	48.1	48.1
			SHC	23.8	32.0	40.2	22.7	31.0	39.3	21.5	30.0	38.5	19.9	28.6	37.3
		76	TC	—	61.6	61.6	—	58.8	58.8	—	55.6	55.6	—	52.1	52.1
			SHC	—	24.8	32.6	—	23.8	31.7	—	22.7	30.8	—	21.6	30.0
2000 Cfm	EA (wb)	58	TC	50.7	50.7	57.2	48.3	48.3	54.5	44.9	44.9	50.8	41.4	41.4	46.8
			SHC	44.2	50.7	57.2	42.0	48.3	54.5	39.1	44.9	50.8	36.0	41.4	46.8
		62	TC	51.5	51.5	57.5	48.3	48.3	56.6	45.0	45.0	52.8	41.5	41.5	48.7
			SHC	41.2	49.3	57.5	40.0	48.3	56.6	37.2	45.0	52.8	34.3	41.5	48.7
		67	TC	54.6	54.6	54.6	51.6	51.6	51.9	47.7	47.7	50.9	43.0	43.0	49.0
			SHC	33.9	43.2	52.5	32.9	42.4	51.9	31.5	41.2	50.9	29.6	39.3	49.0
		72	TC	59.0	59.0	59.0	56.1	56.1	56.1	52.9	52.9	52.9	48.7	48.7	48.7
			SHC	24.3	33.2	42.1	23.2	32.3	41.3	22.0	31.3	40.6	20.6	30.1	39.7
		76	TC	—	62.1	62.1	—	59.3	59.3	—	56.0	56.0	—	52.6	52.6
			SHC	—	25.5	34.1	—	24.5	33.2	—	23.3	32.2	—	22.3	31.4

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

LEGEND

—	Do Not Operate
Cfm	Cubic Feet Per Minute (Supply Air)
EA (db)	Entering Air Temperature (dry bulb)
EA (wb)	Entering Air Temperature (wet bulb)
SHC	Sensible Heat Capacity (1000 Btuh) Gross
TC	Total Capacity (1000 Btuh) Gross

50FCQA06 Single Stage Cooling Capacities^a

50FCQA06				AMBIENT TEMPERATURE (F)											
				85			95			105			115		
				EA (db)			EA (db)			EA (db)			EA (db)		
				75	80	85	75	80	85	75	80	85	75	80	85
1500 Cfm	EA (wb)	58	TC	53.2	53.2	60.1	49.8	49.8	56.3	46.2	46.2	52.3	42.4	42.4	48.0
			SHC	46.3	53.2	60.1	43.3	49.8	56.3	40.1	46.2	52.3	36.7	42.4	48.0
		62	TC	55.6	55.6	58.8	51.3	51.3	56.7	46.4	46.4	54.2	42.4	42.4	50.0
			SHC	42.6	50.7	58.8	40.4	48.6	56.7	38.0	46.1	54.2	34.9	42.4	50.0
		67	TC	62.7	62.7	62.7	58.2	58.2	58.2	53.5	53.5	53.5	48.1	48.1	48.1
			SHC	35.4	43.4	51.5	33.3	41.4	49.5	31.2	39.3	47.4	28.9	37.0	45.1
		72	TC	67.7	67.7	67.7	64.7	64.7	64.7	60.8	60.8	60.8	55.3	55.3	55.3
			SHC	27.0	34.6	42.2	25.6	33.4	41.2	24.0	32.0	40.0	21.7	29.8	37.9
		76	TC	—	73.5	73.5	—	69.7	69.7	—	66.0	66.0	—	61.5	61.5
			SHC	—	28.5	35.0	—	27.0	34.1	—	25.5	33.1	—	23.9	31.7
1800 Cfm	EA (wb)	58	TC	56.9	56.9	64.2	53.4	53.4	60.4	49.6	49.6	56.1	45.4	45.4	51.4
			SHC	49.5	56.9	64.2	46.5	53.4	60.4	43.1	49.6	56.1	39.4	45.4	51.4
		62	TC	57.8	57.8	65.3	53.7	53.7	62.3	49.7	49.7	58.4	45.5	45.5	53.5
			SHC	46.5	55.9	65.3	44.0	53.1	62.3	41.0	49.7	58.4	37.4	45.5	53.5
		67	TC	64.1	64.1	64.1	60.3	60.3	60.3	55.3	55.3	55.3	49.9	49.9	50.3
			SHC	37.4	46.6	55.8	35.9	45.3	54.7	33.7	43.1	52.5	31.4	40.8	50.3
		72	TC	70.2	70.2	70.2	66.8	66.8	66.8	62.6	62.6	62.6	57.2	57.2	57.2
			SHC	28.2	37.2	46.2	26.8	35.9	45.0	25.1	34.4	43.8	22.9	32.3	41.7
		76	TC	—	75.8	75.8	—	72.1	72.1	—	67.9	67.9	—	63.1	63.1
			SHC	—	29.9	38.6	—	28.5	37.3	—	27.0	35.9	—	25.2	34.4
2100 Cfm	EA (wb)	58	TC	60.0	60.0	67.7	56.3	56.3	63.7	52.5	52.5	59.3	48.2	48.2	54.5
			SHC	52.2	60.0	67.7	49.0	56.3	63.7	45.6	52.5	59.3	41.8	48.2	54.5
		62	TC	60.1	60.1	70.4	56.4	56.4	66.2	52.5	52.5	61.7	48.2	48.2	56.8
			SHC	49.7	60.1	70.4	46.6	56.4	66.2	43.4	52.5	61.7	39.7	48.2	56.8
		67	TC	65.7	65.7	65.7	61.9	61.9	61.9	56.6	56.6	57.5	51.2	51.2	55.2
			SHC	39.7	50.1	60.6	38.3	49.0	59.7	36.0	46.8	57.5	33.8	44.5	55.2
		72	TC	72.0	72.0	72.0	68.6	68.6	68.6	64.1	64.1	64.1	58.5	58.5	58.5
			SHC	29.3	39.6	49.9	27.9	38.3	48.7	26.1	36.8	47.4	24.0	34.6	45.3
		76	TC	—	77.0	77.0	—	73.3	73.3	—	69.1	69.1	—	64.2	64.2
			SHC	—	31.0	40.9	—	29.6	39.7	—	28.1	38.3	—	26.4	36.9
2400 Cfm	EA (wb)	58	TC	62.7	62.7	70.8	58.9	58.9	66.5	54.8	54.8	61.9	50.5	50.5	57.1
			SHC	54.6	62.7	70.8	51.2	58.9	66.5	47.6	54.8	61.9	43.8	50.5	57.1
		62	TC	62.8	62.8	73.6	58.9	58.9	69.2	54.9	54.9	64.4	50.5	50.5	59.4
			SHC	52.0	62.8	73.6	48.7	58.9	69.2	45.3	54.9	64.4	41.7	50.5	59.4
		67	TC	67.3	67.3	67.3	63.2	63.2	64.5	57.8	57.8	62.3	52.2	52.2	60.0
			SHC	42.1	53.8	65.6	40.5	52.5	64.5	38.3	50.3	62.3	36.0	48.0	60.0
		72	TC	73.5	73.5	73.5	69.7	69.7	69.7	65.2	65.2	65.2	59.5	59.5	59.5
			SHC	30.3	41.8	53.3	28.8	40.4	52.0	27.1	38.9	50.8	24.9	36.9	48.9
		76	TC	—	78.1	78.1	—	74.2	74.2	—	69.9	69.9	—	65.1	65.1
			SHC	—	32.1	43.2	—	30.7	41.9	—	29.1	40.5	—	27.5	39.2
2700 Cfm	EA (wb)	58	TC	64.6	64.6	72.9	61.0	61.0	69.0	56.8	56.8	64.2	52.3	52.3	59.2
			SHC	56.3	64.6	72.9	53.1	61.0	69.0	49.4	56.8	64.2	45.4	52.3	59.2
		62	TC	64.4	64.4	75.5	61.1	61.1	71.7	56.8	56.8	66.7	52.4	52.4	61.6
			SHC	53.4	64.4	75.5	50.5	61.1	71.7	46.9	56.8	66.7	43.2	52.4	61.6
		67	TC	68.3	68.3	70.0	64.2	64.2	69.1	58.8	58.8	67.1	53.1	53.1	64.6
			SHC	44.1	57.1	70.0	42.7	55.9	69.1	40.5	53.8	67.1	38.1	51.4	64.6
		72	TC	74.3	74.3	74.3	70.5	70.5	70.5	66.1	66.1	66.1	60.3	60.3	60.3
			SHC	31.1	43.8	56.5	29.6	42.4	55.2	27.9	41.0	54.1	25.8	39.1	52.3
		76	TC	—	78.9	78.9	—	74.9	74.9	—	70.6	70.6	—	65.8	65.8
			SHC	—	33.0	45.2	—	31.7	44.1	—	30.1	42.7	—	28.6	41.5

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

LEGEND

—	Do Not Operate
Cfm	Cubic Feet Per Minute (Supply Air)
EA (db)	Entering Air Temperature (dry bulb)
EA (wb)	Entering Air Temperature (wet bulb)
SHC	Sensible Heat Capacity (1000 Btuh) Gross
TC	Total Capacity (1000 Btuh) Gross

50FCQM07 High Stage Cooling Capacities^a

50FCQM07				AMBIENT TEMPERATURE (F)											
				85			95			105			115		
				EA (db)			EA (db)			EA (db)			EA (db)		
				75	80	85	75	80	85	75	80	85	75	80	85
1800 Cfm	EA (wb)	58	TC	65.7	65.7	74.1	62.9	62.9	71.0	59.9	59.9	67.7	56.7	56.7	64.1
			SHC	57.2	65.7	74.1	54.8	62.9	71.0	52.2	59.9	67.7	49.4	56.7	64.1
		62	TC	68.3	68.3	71.8	64.8	64.8	70.0	61.0	61.0	68.2	57.0	57.0	66.2
			SHC	52.3	62.0	71.8	50.5	60.3	70.0	48.7	58.5	68.2	46.7	56.5	66.2
		67	TC	75.2	75.2	75.2	71.4	71.4	71.4	67.4	67.4	67.4	63.1	63.1	63.1
			SHC	42.9	52.6	62.3	41.2	50.9	60.6	39.4	49.1	58.8	37.5	47.2	57.0
		72	TC	81.1	81.1	81.1	78.4	78.4	78.4	74.4	74.4	74.4	69.7	69.7	69.7
			SHC	32.6	41.7	50.9	31.5	41.0	50.6	29.9	39.5	49.2	28.0	37.7	47.4
		76	TC	—	87.4	87.4	—	84.0	84.0	—	80.2	80.2	—	75.4	75.4
			SHC	—	34.2	41.9	—	32.9	41.6	—	31.6	40.8	—	29.9	39.3
2100 Cfm	EA (wb)	58	TC	69.4	69.4	78.3	66.4	66.4	75.0	63.2	63.2	71.4	59.8	59.8	67.5
			SHC	60.5	69.4	78.3	57.9	66.4	75.0	55.1	63.2	71.4	52.1	59.8	67.5
		62	TC	70.5	70.5	79.3	66.8	66.8	77.3	63.3	63.3	74.1	59.9	59.9	70.2
			SHC	56.7	68.0	79.3	54.8	66.1	77.3	52.4	63.2	74.1	49.5	59.9	70.2
		67	TC	77.5	77.5	77.5	73.5	73.5	73.5	69.2	69.2	69.2	64.7	64.7	64.7
			SHC	45.7	57.0	68.3	44.0	55.3	66.6	42.2	53.5	64.8	40.3	51.6	62.9
		72	TC	84.1	84.1	84.1	80.8	80.8	80.8	76.2	76.2	76.2	71.4	71.4	71.4
			SHC	34.1	45.0	55.8	32.9	44.1	55.3	31.1	42.3	53.6	29.2	40.5	51.7
		76	TC	—	90.5	90.5	—	86.7	86.7	—	82.3	82.3	—	77.1	77.1
			SHC	—	36.1	46.4	—	34.7	45.3	—	33.2	44.2	—	31.4	42.5
2400 Cfm	EA (wb)	58	TC	72.6	72.6	81.9	69.4	69.4	78.3	66.0	66.0	74.5	62.4	62.4	70.4
			SHC	63.3	72.6	81.9	60.5	69.4	78.3	57.5	66.0	74.5	54.3	62.4	70.4
		62	TC	73.7	73.7	82.3	69.7	69.7	81.6	66.1	66.1	77.4	62.4	62.4	73.2
			SHC	59.0	70.7	82.3	57.7	69.6	81.6	54.7	66.1	77.4	51.7	62.4	73.2
		67	TC	79.2	79.2	79.2	75.0	75.0	75.0	70.6	70.6	70.6	65.9	65.9	68.7
			SHC	48.5	61.3	74.2	46.7	59.6	72.4	44.9	57.7	70.6	42.9	55.8	68.7
		72	TC	86.3	86.3	86.3	82.4	82.4	82.4	77.7	77.7	77.7	72.7	72.7	72.7
			SHC	35.5	48.0	60.5	34.0	46.8	59.6	32.2	45.0	57.8	30.3	43.2	56.0
		76	TC	—	92.8	92.8	—	88.7	88.7	—	83.8	83.8	—	78.5	78.5
			SHC	—	37.7	49.7	—	36.3	48.7	—	34.7	47.2	—	32.9	45.5
2700 Cfm	EA (wb)	58	TC	75.3	75.3	84.9	71.9	71.9	81.1	68.3	68.3	77.1	64.5	64.5	72.8
			SHC	65.6	75.3	84.9	62.7	71.9	81.1	59.5	68.3	77.1	56.2	64.5	72.8
		62	TC	75.3	75.3	88.2	72.0	72.0	84.3	68.4	68.4	80.2	64.6	64.6	75.7
			SHC	62.5	75.3	88.2	59.7	72.0	84.3	56.7	68.4	80.2	53.5	64.6	75.7
		67	TC	80.5	80.5	80.5	76.2	76.2	78.2	71.6	71.6	76.3	66.8	66.8	74.3
			SHC	51.1	65.5	79.9	49.3	63.7	78.2	47.5	61.9	76.3	45.5	59.9	74.3
		72	TC	88.3	88.3	88.3	83.7	83.7	83.7	78.8	78.8	78.8	73.6	73.6	73.6
			SHC	36.9	51.2	65.5	35.1	49.5	63.8	33.3	47.6	62.0	31.4	45.8	60.1
		76	TC	—	94.7	94.7	—	90.1	90.1	—	85.0	85.0	—	79.5	79.5
			SHC	—	39.3	53.0	—	37.8	51.9	—	36.1	50.2	—	34.2	48.4
3000 Cfm	EA (wb)	58	TC	77.5	77.5	87.4	74.0	74.0	83.5	70.3	70.3	79.3	66.3	66.3	74.9
			SHC	67.6	77.5	87.4	64.6	74.0	83.5	61.3	70.3	79.3	57.8	66.3	74.9
		62	TC	77.6	77.6	90.9	74.1	74.1	86.8	70.4	70.4	82.5	66.4	66.4	77.8
			SHC	64.4	77.6	90.9	61.4	74.1	86.8	58.3	70.4	82.5	55.0	66.4	77.8
		67	TC	81.5	81.5	85.6	77.1	77.1	83.7	72.5	72.5	81.8	67.6	67.6	79.8
			SHC	53.7	69.6	85.6	51.9	67.8	83.7	50.0	65.9	81.8	48.0	63.9	79.8
		72	TC	89.4	89.4	89.4	84.7	84.7	84.7	79.7	79.7	79.7	74.4	74.4	74.4
			SHC	37.9	53.8	69.6	36.2	52.0	67.9	34.3	50.2	66.1	32.4	48.3	64.2
		76	TC	—	96.1	96.1	—	91.2	91.2	—	85.9	85.9	—	80.3	80.3
			SHC	—	40.8	56.3	—	39.2	54.8	—	37.4	53.1	—	35.6	51.3

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

LEGEND

—	Do Not Operate
Cfm	Cubic Feet Per Minute (Supply Air)
EA (db)	Entering Air Temperature (dry bulb)
EA (wb)	Entering Air Temperature (wet bulb)
SHC	Sensible Heat Capacity (1000 Btuh) Gross
TC	Total Capacity (1000 Btuh) Gross

50FCQM07 Low Stage Cooling Capacities^a

50FCQM07				AMBIENT TEMPERATURE (F)											
				85			95			105			115		
				EA (db)			EA (db)			EA (db)			EA (db)		
				75	80	85	75	80	85	75	80	85	75	80	85
1500 Cfm	EA (wb)	58	TC	49.6	49.6	56.1	47.3	47.3	53.5	44.6	44.6	50.5	41.7	41.7	47.2
			SHC	43.1	49.6	56.1	41.0	47.3	53.5	38.7	44.6	50.5	36.1	41.7	47.2
		62	TC	50.8	50.8	56.3	47.8	47.8	54.8	45.2	45.2	51.4	41.7	41.7	49.2
			SHC	40.2	48.3	56.3	38.6	46.7	54.8	36.3	43.9	51.4	34.3	41.7	49.2
		67	TC	56.6	56.6	56.6	53.3	53.3	53.3	49.7	49.7	49.7	45.8	45.8	45.8
			SHC	32.6	40.7	48.8	31.1	39.2	47.3	29.5	37.6	45.7	27.8	35.9	44.0
		72	TC	61.9	61.9	61.9	59.2	59.2	59.2	55.7	55.7	55.7	51.5	51.5	51.5
			SHC	24.4	32.1	39.7	23.3	31.2	39.1	21.9	29.9	37.9	20.2	28.2	36.3
		76	TC	—	67.3	67.3	—	64.3	64.3	—	60.7	60.7	—	56.3	56.3
			SHC	—	26.0	32.9	—	24.9	32.3	—	23.6	31.3	—	22.0	29.8
1750 Cfm	EA (wb)	58	TC	52.9	52.9	59.8	50.3	50.3	56.9	47.4	47.4	53.7	44.2	44.2	50.1
			SHC	45.9	52.9	59.8	43.6	50.3	56.9	41.1	47.4	53.7	38.3	44.2	50.1
		62	TC	53.0	53.0	61.9	50.3	50.3	59.2	47.4	47.4	55.9	44.2	44.2	52.2
			SHC	43.5	52.7	61.9	41.4	50.3	59.2	39.0	47.4	55.9	36.3	44.2	52.2
		67	TC	58.3	58.3	58.3	54.8	54.8	54.8	51.0	51.0	51.3	46.9	46.9	49.5
			SHC	35.1	44.8	54.4	33.6	43.2	52.9	31.9	41.6	51.3	30.2	39.9	49.5
		72	TC	64.3	64.3	64.3	61.1	61.1	61.1	57.0	57.0	57.0	52.6	52.6	52.6
			SHC	25.6	34.9	44.2	24.3	33.9	43.5	22.7	32.3	42.0	21.0	30.6	40.3
		76	TC	—	69.9	69.9	—	66.4	66.4	—	62.3	62.3	—	57.6	57.6
			SHC	—	27.5	36.5	—	26.2	35.4	—	24.8	34.2	—	23.1	32.6
2000 Cfm	EA (wb)	58	TC	55.3	55.3	62.6	52.5	52.5	59.5	49.4	49.4	56.0	46.0	46.0	52.3
			SHC	48.0	55.3	62.6	45.5	52.5	59.5	42.8	49.4	56.0	39.8	46.0	52.3
		62	TC	55.3	55.3	65.1	52.5	52.5	61.9	49.5	49.5	58.3	46.1	46.1	54.4
			SHC	45.6	55.3	65.1	43.2	52.5	61.9	40.6	49.5	58.3	37.8	46.1	54.4
		67	TC	59.2	59.2	59.7	55.6	55.6	58.2	51.7	51.7	56.5	47.4	47.4	54.7
			SHC	37.3	48.5	59.7	35.8	47.0	58.2	34.1	45.3	56.5	32.3	43.5	54.7
		72	TC	65.8	65.8	65.8	62.0	62.0	62.0	57.8	57.8	57.8	53.2	53.2	53.2
			SHC	26.4	37.5	48.6	24.9	36.1	47.3	23.3	34.5	45.7	21.5	32.7	43.9
		76	TC	—	71.4	71.4	—	67.5	67.5	—	63.0	63.0	—	58.2	58.2
			SHC	—	28.5	39.2	—	27.2	38.2	—	25.7	36.6	—	24.0	35.0
2250 Cfm	EA (wb)	58	TC	57.1	57.1	64.7	54.1	54.1	61.4	50.8	50.8	57.7	47.3	47.3	53.8
			SHC	49.5	57.1	64.7	46.9	54.1	61.4	44.0	50.8	57.7	40.8	47.3	53.8
		62	TC	57.1	57.1	67.3	54.2	54.2	63.8	50.9	50.9	60.1	47.3	47.3	56.0
			SHC	47.0	57.1	67.3	44.5	54.2	63.8	41.7	50.9	60.1	38.7	47.3	56.0
		67	TC	59.7	59.7	64.7	56.0	56.0	63.1	51.9	51.9	61.4	47.6	47.6	59.4
			SHC	39.2	52.0	64.7	37.7	50.4	63.1	35.9	48.7	61.4	34.1	46.8	59.4
		72	TC	66.4	66.4	66.4	62.4	62.4	62.4	58.0	58.0	58.0	53.3	53.3	53.3
			SHC	26.9	39.5	52.2	25.3	38.0	50.7	23.6	36.4	49.1	21.9	34.6	47.3
		76	TC	—	72.1	72.1	—	68.0	68.0	—	63.3	63.3	—	58.4	58.4
			SHC	—	29.3	41.6	—	27.9	40.4	—	26.3	38.8	—	24.6	37.2
2500 Cfm	EA (wb)	58	TC	58.3	58.3	66.1	55.2	55.2	62.7	51.8	51.8	58.9	48.1	48.1	54.7
			SHC	50.4	58.3	66.1	47.7	55.2	62.7	44.7	51.8	58.9	41.4	48.1	54.7
		62	TC	58.3	58.3	68.8	55.2	55.2	65.2	51.8	51.8	61.3	48.1	48.1	57.0
			SHC	47.8	58.3	68.8	45.2	55.2	65.2	42.3	51.8	61.3	39.2	48.1	57.0
		67	TC	59.7	59.7	69.3	56.0	56.0	67.6	52.0	52.0	65.5	48.2	48.2	61.1
			SHC	40.9	55.1	69.3	39.3	53.4	67.6	37.4	51.5	65.5	34.7	47.9	61.1
		72	TC	66.4	66.4	66.4	62.3	62.3	62.3	57.8	57.8	57.8	53.0	53.0	53.0
			SHC	27.0	41.2	55.4	25.4	39.7	53.9	23.8	38.0	52.2	22.0	36.2	50.5
		76	TC	—	72.3	72.3	—	67.9	67.9	—	63.2	63.2	—	58.1	58.1
			SHC	—	29.8	43.8	—	28.3	42.3	—	26.7	40.8	—	25.0	39.1

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

LEGEND

—	Do Not Operate
Cfm	Cubic Feet Per Minute (Supply Air)
EA (db)	Entering Air Temperature (dry bulb)
EA (wb)	Entering Air Temperature (wet bulb)
SHC	Sensible Heat Capacity (1000 Btuh) Gross
TC	Total Capacity (1000 Btuh) Gross

50FCQA04 Heating Capacities

50FCQA04 (3 Tons)											
Return Air (°F db)	CFM (Standard Air)		Temperature Air Entering Outdoor Coil (°F db at 70% rh)								
			-10	0	10	17	30	40	47	50	60
55	900	Capacity	10.0	13.5	17.3	20.1	26.0	31.1	34.5	35.5	40.2
		Int. Cap.	9.2	12.5	15.9	18.4	22.8	31.1	34.5	35.5	40.2
	1200	Capacity	10.4	13.9	17.8	20.7	26.8	31.9	35.1	36.2	41.1
		Int. Cap.	9.6	12.8	16.3	18.9	23.5	31.9	35.1	36.2	41.1
	1500	Capacity	10.4	14.1	18.1	21.0	27.4	32.1	35.4	36.5	41.4
		Int. Cap.	9.6	13.0	16.6	19.1	24.0	32.1	35.4	36.5	41.4
70	900	Capacity	8.2	11.7	15.6	18.4	24.1	28.8	32.9	33.9	38.6
		Int. Cap.	7.6	10.8	14.3	16.8	21.1	28.8	32.9	33.9	38.6
	1200	Capacity	8.5	12.2	16.1	19.1	25.0	30.1	34.1	34.9	39.6
		Int. Cap.	7.9	11.2	14.8	17.4	21.9	30.1	34.1	34.9	39.6
	1500	Capacity	8.7	12.5	16.5	19.4	25.6	30.9	34.3	35.3	39.9
		Int. Cap.	8.1	11.5	15.1	17.7	22.4	30.9	34.3	35.3	39.9
80	900	Capacity	6.7	10.3	14.1	17.0	22.6	27.4	31.1	32.5	37.4
		Int. Cap.	6.2	9.5	13.0	15.5	19.8	27.4	31.1	32.5	37.4
	1200	Capacity	7.0	10.8	14.7	17.7	23.5	28.6	32.7	33.8	38.5
		Int. Cap.	6.5	9.9	13.5	16.1	20.6	28.6	32.7	33.8	38.5
	1500	Capacity	7.2	11.0	15.1	18.1	24.1	29.3	33.4	34.4	39.0
		Int. Cap.	6.7	10.2	13.9	16.5	21.1	29.3	33.4	34.4	39.0

LEGEND

— Indicates standard rating point

Capacity — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

Int. Cap. — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

rh — Relative Humidity

db — Dry Bulb

50FCQC05 Heating Capacities — 1 Phase

50FCQC05 (4 Tons)											
Return Air (°F db)	CFM (Standard Air)		Temperature Air Entering Outdoor Coil (°F db at 70% rh)								
			-10	0	10	17	30	40	47	50	60
55	1200	Capacity	17.0	21.3	26.1	29.7	36.7	42.7	47.2	48.4	53.6
		Int. Cap.	15.7	19.6	24.0	27.1	32.2	42.7	47.2	48.4	53.6
	1600	Capacity	17.7	22.2	27.1	30.7	38.4	44.3	48.1	49.3	55.0
		Int. Cap.	16.4	20.5	24.9	28.0	33.6	44.3	48.1	49.3	55.0
	2000	Capacity	18.6	23.1	28.0	31.7	39.1	45.3	49.3	50.5	56.0
		Int. Cap.	17.2	21.2	25.7	28.9	34.3	45.3	49.3	50.5	56.0
70	1200	Capacity	14.3	18.9	23.8	27.4	34.5	40.1	44.9	46.6	51.8
		Int. Cap.	13.3	17.4	21.8	25.0	30.2	40.1	44.9	46.6	51.8
	1600	Capacity	15.1	19.8	24.8	28.5	35.7	41.8	46.6	48.1	52.9
		Int. Cap.	13.9	18.2	22.7	26.0	31.3	41.8	46.6	48.1	52.9
	2000	Capacity	15.9	20.7	25.8	29.5	36.9	43.2	47.9	49.3	54.2
		Int. Cap.	14.7	19.0	23.6	26.9	32.4	43.2	47.9	49.3	54.2
80	1200	Capacity	22.1	17.0	21.9	25.6	32.8	38.6	43.0	44.7	50.5
		Int. Cap.	20.4	15.7	20.1	23.3	28.8	38.6	43.0	44.7	50.5
	1600	Capacity	13.0	17.9	23.0	26.8	34.2	40.2	44.8	46.9	51.7
		Int. Cap.	12.1	16.4	21.1	24.4	30.0	40.2	44.8	46.9	51.7
	2000	Capacity	13.8	18.8	24.0	27.9	35.4	41.5	46.5	48.2	53.1
		Int. Cap.	12.8	17.3	22.0	25.4	31.0	41.5	46.5	48.2	53.1

LEGEND

— Indicates standard rating point

Capacity — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

Int. Cap. — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

rh — Relative Humidity

db — Dry Bulb

50FCQA05 Heating Capacities — 3 Phase

50FCQA05 (4 Tons)											
Return Air (°F db)	CFM (Standard Air)		Temperature Air Entering Outdoor Coil (°F db at 70% rh)								
			-10	0	10	17	30	40	47	50	60
55	1200	Capacity	17.8	22.3	26.9	30.3	37.1	42.9	47.4	49.2	55.6
		Int. Cap.	16.4	20.5	24.7	27.6	32.5	42.9	47.4	49.2	55.6
	1600	Capacity	17.8	22.4	27.0	30.5	37.6	43.8	48.2	50.1	56.4
		Int. Cap.	16.4	20.6	24.8	27.8	33.0	43.8	48.2	50.1	56.4
	2000	Capacity	18.8	23.4	28.1	31.6	39.0	45.2	49.4	51.2	57.4
		Int. Cap.	17.3	21.5	25.8	28.9	34.1	45.2	49.4	51.2	57.4
70	1200	Capacity	16.1	20.6	25.3	28.6	35.3	40.8	45.0	47.0	53.3
		Int. Cap.	14.9	19.0	23.2	26.0	30.9	40.8	45.0	47.0	53.3
	1600	Capacity	16.2	20.8	25.6	29.0	35.9	41.6	46.1	48.1	54.2
		Int. Cap.	15.0	19.2	23.5	26.4	31.4	41.6	46.1	48.1	54.2
	2000	Capacity	17.3	22.0	26.8	30.2	37.2	43.2	47.6	49.4	55.5
		Int. Cap.	16.0	20.2	24.6	27.5	32.6	43.2	47.6	49.4	55.5
80	1200	Capacity	16.1	20.6	25.3	28.6	35.3	40.8	45.0	47.0	53.3
		Int. Cap.	14.9	19.0	23.2	26.0	30.9	40.8	45.0	47.0	53.3
	1600	Capacity	14.7	19.4	24.2	27.7	34.5	40.1	44.5	46.4	52.7
		Int. Cap.	13.6	17.9	22.2	25.3	30.3	40.1	44.5	46.4	52.7
	2000	Capacity	15.8	20.6	25.5	29.0	35.9	41.7	46.2	48.1	54.1
		Int. Cap.	14.6	19.0	23.4	26.4	31.5	41.7	46.2	48.1	54.1

LEGEND

— Indicates standard rating point

Capacity — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

Int. Cap. — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

rh — Relative Humidity

db — Dry Bulb

50FCQA06 Heating Capacities

50FCQA06 (5 Tons)											
Return Air (°F db)	CFM (Standard Air)		Temperature Air Entering Outdoor Coil (°F db at 70% rh)								
			-10	0	10	17	30	40	47	50	60
55	1500	Capacity	—	26.7	32.6	37.0	45.8	52.7	58.4	61.0	68.7
		Int. Cap.	—	24.6	30.0	33.7	40.1	52.7	58.4	61.0	68.7
	2000	Capacity	—	26.9	32.8	37.3	46.3	53.7	59.3	61.5	69.3
		Int. Cap.	—	24.8	30.1	34.0	40.6	53.7	59.3	61.5	69.3
	2500	Capacity	—	28.4	34.3	38.8	48.0	55.3	60.7	62.8	70.4
		Int. Cap.	—	26.1	31.5	35.4	42.1	55.3	60.7	62.8	70.4
70	1500	Capacity	18.3	24.2	30.3	34.7	43.6	50.1	56.0	58.4	66.3
		Int. Cap.	16.9	22.3	27.8	31.7	38.2	50.1	56.0	58.4	66.3
	2000	Capacity	18.5	24.5	30.7	35.1	44.2	51.3	56.8	59.4	67.2
		Int. Cap.	17.1	22.5	28.1	32.0	38.7	51.3	56.8	59.4	67.2
	2500	Capacity	19.9	26.0	32.2	36.7	45.9	53.1	58.8	61.1	68.6
		Int. Cap.	18.4	23.9	29.6	33.5	40.2	53.1	58.8	61.1	68.6
80	1500	Capacity	16.0	22.1	28.4	33.0	41.9	48.6	54.1	56.6	64.5
		Int. Cap.	14.8	20.4	26.1	30.0	36.7	48.6	54.1	56.6	64.5
	2000	Capacity	16.2	22.5	28.9	33.5	42.7	49.6	55.0	57.8	65.6
		Int. Cap.	15.0	20.7	26.5	30.5	37.4	49.6	55.0	57.8	65.6
	2500	Capacity	17.7	24.0	30.5	35.2	44.4	51.5	57.2	59.5	67.2
		Int. Cap.	16.3	22.1	28.0	32.1	38.9	51.5	57.2	59.5	67.2

LEGEND

— Indicates standard rating point

— Indicates operation not permissible

Capacity — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

Int. Cap. — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

rh — Relative Humidity

db — Dry Bulb