

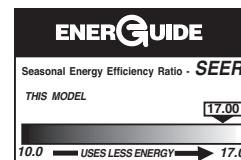
FUJITSU



FO*20C SERIES

Efficiencies up to 20 SEER/13 EER
Nominal Sizes 2, 3, 4 & 5 Ton
[7.03, 10.6, 14.06 & 17.6 kW]
Cooling Capacities 17.3 to 60.5 kBTU
[5.7 to 17.7 kW]

Manufactured for
Fujitsu General America, Inc.
Fairfield, NJ



VARIABLE SPEED AIR CONDITIONERS

Features

- **Energy Efficiency** offers minimum of 20 SEER and 13 EER system performance across all capacities.
- **Expanded Valve Space** – 3"-4"-5" service valve space – provides a minimum working area of 27-square inches for easier access
- **Triple Service Access** – 15" wide, industry leading corner service access – makes repairs easier and faster. The three fastener removable corner allows optimal access to internal unit components. Individual louver panels come out once fastener is removed, for faster coil cleaning and easier cabinet reassembly
- **EcoNet™ Enabled product.** The EcoNet Smart Home System provides advanced air & water control for maximum energy savings and ideal comfort.
- **New composite base pan** – dampens sound, captures louver panels, eliminates corrosion and reduces number of fasteners needed
- **Powder coat paint system** – for a long lasting professional finish
- **The Copeland Scroll™ Variable Speed Compressor** has a modulating technology which provides more precise temperature control, lower humidity and greater efficiency. The overdrive feature provides cooling load up to 107°F.
- **Modern cabinet aesthetics** – increased curb appeal with visually appealing design
- **Vertical louver panels** – provide ultimate coil protection, enhance cabinet strength, and increased cabinet rigidity
- **Optimized fan orifice** – optimizes airflow and reduces unit sound
- **Rust resistant screws** – confirmed through 1500-hour salt spray testing
- **Diagnostic service window** with two-fastener opening – provides access to the high and low pressure.
- **External gauge port access** – allows easy connection of "low-loss" gauge ports
- **Single-row condenser coil** (up thru 4 tons) – makes unit lighter and allows thorough coil cleaning to maintain "out of the box" performance
- **35% fewer cabinet fasteners and fastener-free base** – allow for faster access to internal components and hassle-free panel removal
- **Service trays** – hold fasteners or caps during service calls
- **QR code** – provides technical information on demand for faster service calls
- **Fan motor harness** with extra long wires allows unit top to be removed without disconnecting fan wire.
- **High and low pressure standard** on all models.

"Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet Energy Star. Ask your Contractor for details or visit www.energystar.gov."

TABLE OF CONTENTS

Model Number Identification	3
Available SKUs	3
General Data/Electrical Data	4
Accessories	5
Weighted Sound Power	5
Smart Home Systems	6
Unit Dimensions.....	7
Clearances.....	8
Wiring Diagrams	9
Refrigerant Line Size Information	10-11
Performance Data	12
Guide Specifications	13
Limited Warranty	14

Air Conditioners*

<u>FO</u>	<u>24</u>	<u>20</u>	<u>C</u>	<u>V</u>	<u>J</u>	<u>C</u>	<u>B</u>	<u>A</u>
Brand	Capacity	SEER	Type	Speed	Volt	Communication	Pressure	Series
Fujitsu	24 = 24,000 36 = 36,000 48 = 48,000 60 = 60,000	20 = 20 SEER	C = AC	V = Variable	J = 208/230 1ph	C = Communicating	B = With switch	A = No pressure switch

[] Designates Metric Conversions

Available SKUs

Available Models
FO2420CVJCBA
FO3620CVJCBA
FO4820CVJCBA
FO6020CVJCBA

Physical Data				
Model No.	F02420	F03620	F04820	F06020
Nominal Tonnage	2.0	3.0	4.0	5.0
Valve Connections				
Liquid Line O.D. – in.	3/8	3/8	3/8	3/8
Suction Line O.D. – in.	3/4	3/4	7/8	7/8
Refrigerant (R-410A) furnished oz.¹	148	193.6	196	376
Compressor Type	Scroll			
Outdoor Coil				
Net face area – Outer Coil	22.2	22.3	32.5	32.5
Net face area – Inner Coil	—	—	—	—
Tube diameter – in.	3/8	3/8	3/8	3/8
Number of rows	1	1	1	2
Fins per inch	20	20	22	20
Outdoor Fan				
Diameter – in.	24	24	26	26
Number of blades	3	3	3	3
Motor hp	1/5	1/3	1/2	1/2
CFM	3330	4315	6240	6175
RPM	772	825	935	900
watts	83	114	278	278
Shipping weight – lbs.	226	244	263	316
Operating weight – lbs.	214	236	255	308
Electrical Data				
Line Voltage Data (Volts-Phase-Hz)	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
Maximum overcurrent protection (amps)²	35	45	70	80
Minimum overcurrent protection (amps)²	25	35	60	60
Minimum circuit ampacity³	21	29	46	48
Compressor				
Rated load amps	15	20.1	32	34.1
Locked rotor amps	35	35	50	50
Condenser Fan Motor				
Full load amps	1.4	3.5	5.3	5.3
Locked rotor amps	N/A	N/A	N/A	N/A

¹Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the installation instructions for information about set length and additional refrigerant charge required.

²HACR type circuit breaker or fuse.

³Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.

Accessories

Model No.	F02420	F03620	F04820	F06020
EcoNet Control Center	FETST601SYS	FETST601SYS	FETST601SYS	FETST601SYS
Compressor sound cover	STD	STD	STD	STD

Weighted Sound Power Level (dBA)

VS ODU	Stage	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
			125	250	500	1000	2000	4000	8000
(-)A2024	High	68	47.1	47.7	58.8	57.1	55.0	52.7	45.6
	Low	58.9	29	36.5	42	45.7	42.3	43.2	33
(-)A2036	High	72	42.9	52.8	62.7	63.6	58.7	54.1	52.4
	Low	57	29.2	36.7	44.9	45.4	42.2	39.4	32.2
(-)A2048	High	72	48.2	55.3	64.6	61.7	56.2	51.7	46.2
	Low	54	30.6	39	42.2	42.5	36.5	35.2	35
(-)A2060	High	76	50.7	62.7	67.7	65.4	64.2	59.2	54.9
	Low	70	46.6	50.5	62.7	52.9	49.4	46	41.4

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI)

Integrated Controls



EcoNet is smart technology that allows Heating, Cooling, and Water Heating products to communicate with each other on one integrated network.

Easy to Setup, Easy to Use, Easy to Save

- Optimized for Installability™, Performance, Integration & Serviceability
- Controls 65%† or more of a typical home's energy use from a single device
- Can reduce energy costs by up to 30%††

Features

- Added support for new EEV (Electronic Expansion Valve) Air Handlers, Air Conditioners and Heat Pumps*
- Rapid installation with standard 4-wire configuration
- Automatically configures communicating equipment with optimal settings
- Adapts to home décor through interchangeable faceplates and adjustable background coloring
- Full-color, 4.7" LCD touchscreen display with easy-to-read icons and text
- Convenient date, time and indoor/outdoor temperature indications
- 5 operating modes with short-cycle protection (Heat, Cool, Auto, Emergency Heat, Fan Only)

- 7-Day programmable schedule with Smooth Arrival & Whole Home Vacation options
- Detailed operating status, alarm history, and audible alerts
- Supports humidifier accessories or over-cool based dehumidification
- One-touch access to Water Heater Management†††
- Easily manage from anywhere in the world with the compatible WiFi Module & EcoNet app for smart phones and tablets

Warranty

- 5-Year limited warranty from date of installation

† Source – Department of Energy

†† When compared to non-programmable thermostats. Source: ENERGY STAR® for Programmable Thermostats

††† Requires wired connection to EcoNet Enabled Electric or Hybrid Water Heaters



EcoNet® Control Center
Home control with intuitive LCD touchscreen navigation

FETST601SYS

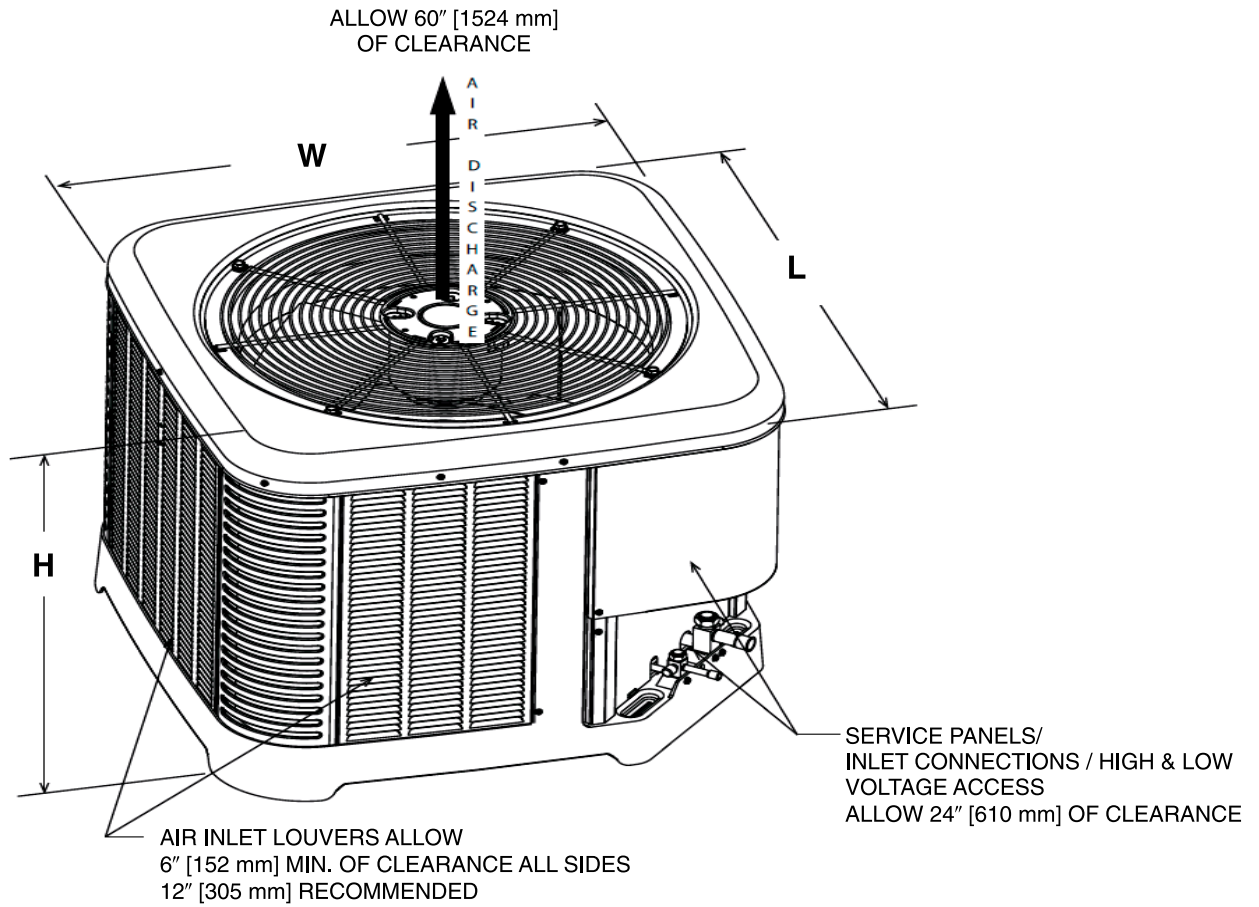
EcoNet Control Center Compatibility

OFFERINGS	HEATING & COOLING						
Product Categories	Gas Furnaces			Air Handlers		Air Conditioners	
Models	FF***LT97	FF***LT96	FF***LT80	FH**ELV	FF***TTT	FO*20C	FO*17C
FETST601SYS	√	√	√	√	√	√	√

**Electronic Expansion Valve (EEV) Models

Unit Dimensions

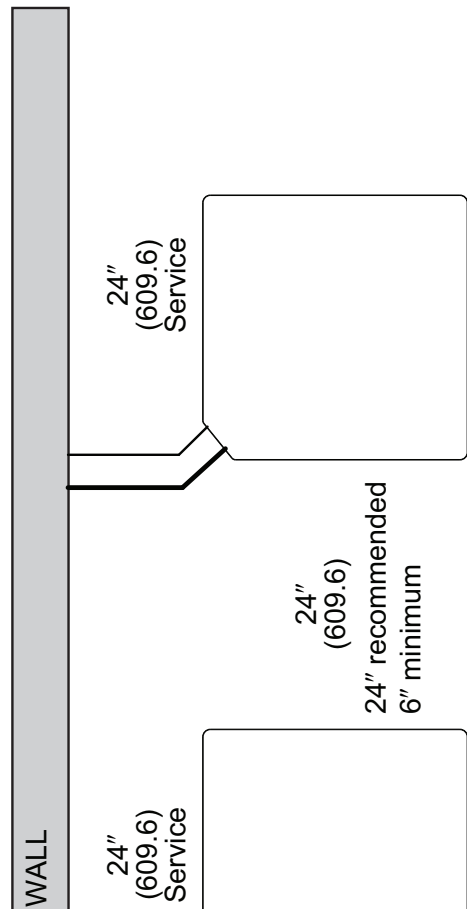
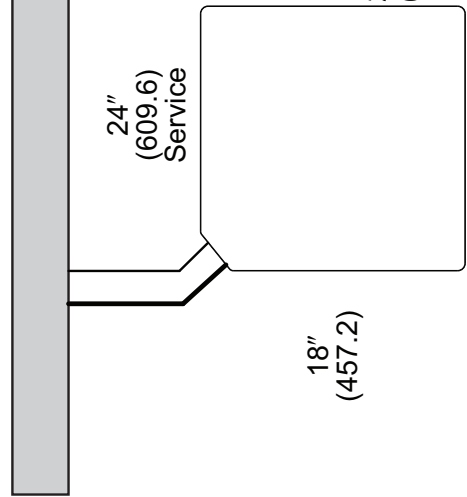
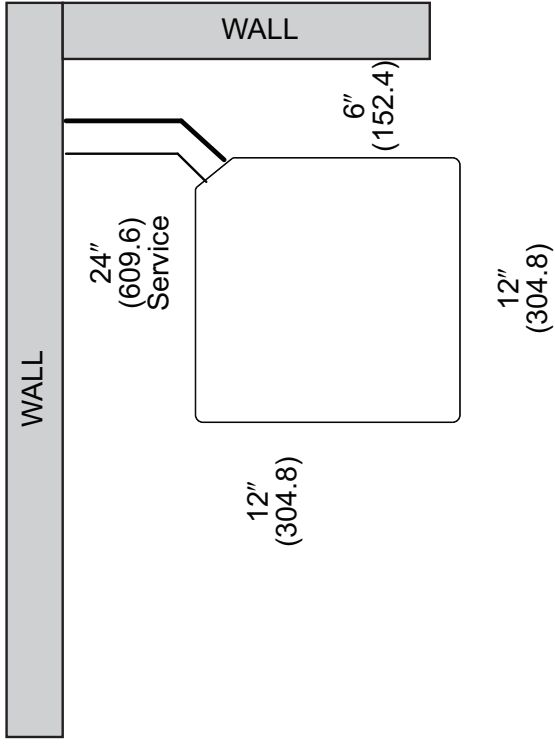
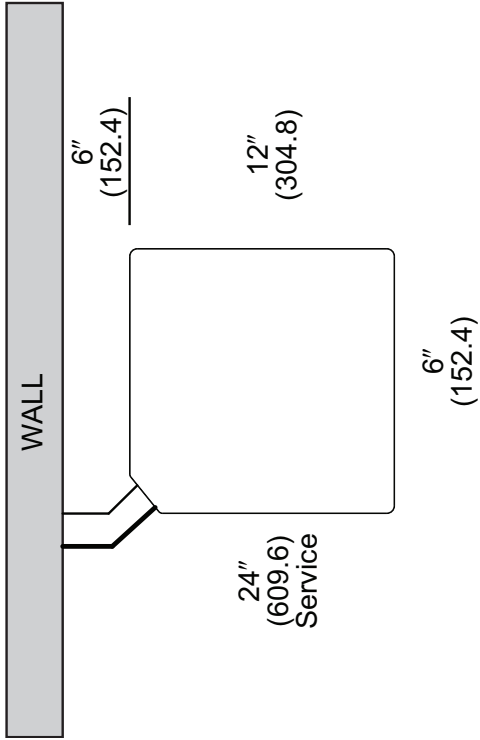
MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
F02420	39	990	33.75	857	33.75	857	41.56	1055	37.64	956	37.56	954
F03620	39	990	33.75	857	33.75	857	41.56	1055	37.64	956	37.56	954
F04820	51	1295	35.75	908	35.75	908	53.56	1360	39.37	999	39.64	1006
F06020	51	1295	35.75	908	35.75	908	53.56	1360	39.37	999	39.64	1006



[] Designates Metric Conversions

ST-A1226-02-00

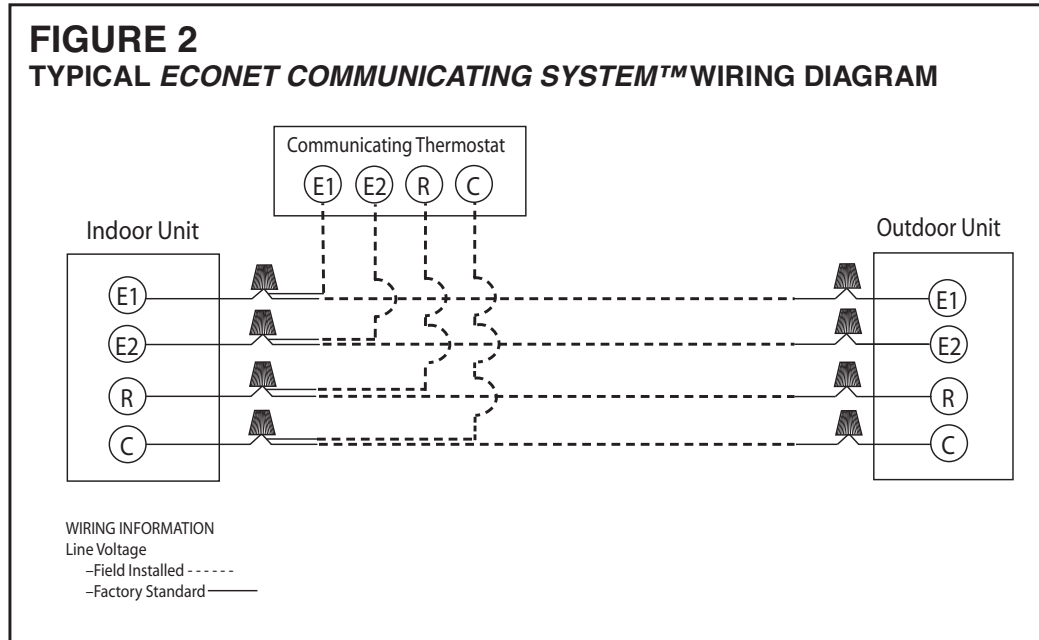
CLEARANCES



NOTE: NUMBERS IN () = mm

IMPORTANT: When installing multiple units in an alcove, roof well or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

Control Wiring



Application Guidelines

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01 -in. wc.
2. Minimum outdoor operation air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. Use only copper wire for electric connections at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
6. Do not apply capillary tube indoor coils to these units.
7. Factory – supplied filter drier must be installed.

Refrigerant Line Size Information

20 SEER Variable Speed Air-Conditioners								
Unit Size	Allowable Liquid Line Size	Allowable Suction Line Size	Outdoor Unit ABOVE or BELOW Indoor Unit Equivalent Length (Feet)					
			< 25	26-50	51-75	76-100	101-125	126-150
			Maximum Vertical Rise (Outdoor Unit Below Indoor Unit) * / Capacity Multiplier					
2.0 Ton *SEE NOTE 3	1/4"	5/8"	25/1/00	50/0.99	32/0.98	40/0.97	NR	NR
	5/16"	5/8"	25/1/00	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	3/8"	5/8"	25/1/00	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	1/4"	3/4"	25/1/00	50/1.00	32/0.99	40/0.99	NR	NR
	5/16"	3/4"	25/1/00	50/1.00	50/0.99	50/0.99	50/0.99	50/0.98
	3/8"	3/4"	25/1/00	50/1.00	50/0.99	50/0.99	50/0.99	50/0.98
3 Ton	5/16"	5/8"	25/0.99	50/0.97	50/0.95	50/0.93	37/0.91	NR
	3/8"	5/8"	25/0.99	50/0.97	50/0.95	50/0.93	50/0.91	NR
	5/16"	3/4"	25/1/00	50/0.99	50/0.99	50/0.98	37/0.97	22/0.96
	3/8"	3/4"	25/1/00	50/0.99	50/0.99	50/0.98	50/0.97	50/0.96
	1/2"	3/4"	25/1/00	50/0.99	50/0.99	50/0.98	50/0.97	50/0.96
4 Ton	3/8"	3/4"	25/0.99	50/0.98	50/0.97	50/0.96	50/0.94	50/0.93
	1/2"	3/4"	25/0.99	50/0.98	50/0.97	50/0.96	50/0.94	50/0.93
	3/8"	7/8"	25/1/00	50/0.99	50/0.99	50/0.98	50/0.98	50/0.97
	1/2"	7/8"	25/1/00	50/0.99	50/0.99	50/0.98	50/0.98	50/0.97
5 Ton	3/8"	3/4"	25/0.99	50/0.97	50/0.95	50/0.93	50/0.91	NR
	1/2"	3/4"	25/0.99	50/0.97	50/0.95	50/0.93	50/0.91	NR
	3/8"	7/8"	25/1/00	50/0.99	50/0.98	50/0.98	50/0.97	38/0.96
	1/2"	7/8"	25/1/00	50/0.99	50/0.98	50/0.98	50/0.97	50/0.96

NOTES:

- Do not exceed 150 ft linear line length.
- *Do not exceed 50 ft vertical separation if outdoor unit is above indoor unit.
- **3/4" suction line should only be used for 1.5 ton systems if outdoor unit is below or at same level as indoor to assure proper oil return.
- Always use the smallest liquid line allowable to minimize refrigerant charge.
- Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

Refrigerant Line Size Information (con't.)

20 SEER Variable Speed Air-Conditioners								
Unit Size	Allowable Liquid Line Size mm [in.]	Allowable Suction Line Size mm [in.]	Outdoor Unit ABOVE or BELOW Indoor Unit Equivalent Length (Meters)					
			< 8	8-15	16-23	24-30	31-38	39-46
			Maximum Vertical Rise (Outdoor Unit Below Indoor Unit) * / Capacity Multiplier					
7.0 kW [2.0 Ton] *SEE NOTE 3	6.35 [1/4]	15.88 [5/8]	8/1/00	15/0.99	1/0.98	10/0.97	NR	NR
	7.94 [5/16]	15.88 [5/8]	8/1/00	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	9.53 [3/8]	15.88 [5/8]	8/1/00	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	6.35 [1/4]	19.05 [3/4]**	8/1/00	15/0.99	10/0.99	1/0.99	NR	NR
	7.94 [5/16]	19.05 [3/4]**	8/1/00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.98
	9.53 [3/8]	19.05 [3/4]**	8/1/00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.98
10.6 kW [3 Ton]	7.94 [5/16]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	11/0.91	NR
	9.53 [3/8]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	15/0.91	NR
	7.94 [5/16]	15.88 [5/8]	8/1/00	15/0.99	15/0.99	15/0.98	11/0.97	7/0.96
	9.53 [3/8]	15.88 [5/8]	8/1/00	15/0.99	15/0.99	15/0.98	15/0.97	15/0.96
	12.7 [1/2]	19.05 [3/4]	8/1/00	15/0.99	15/0.99	15/0.98	15/0.97	15/0.96
14.1 kW [4 Ton]	9.53 [3/8]	15.88 [5/8]	8/0.99	15/0.98	15/0.97	15/0.96	15/0.94	15/0.93
	12.7 [1/2]	19.05 [3/4]	8/0.99	15/0.98	15/0.97	15/0.96	15/0.94	15/0.93
	9.53 [3/8]	15.88 [5/8]	8/1/00	15/0.99	15/0.99	15/0.98	15/0.98	15/0.97
	12.7 [1/2]	19.05 [3/4]	8/1/00	15/0.99	15/0.99	15/0.98	15/0.98	15/0.97
17.6 kW [5 Ton]	9.53 [3/8]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	15/0.91	NR
	12.7 [1/2]	19.05 [3/4]	8/0.99	15/0.97	15/0.95	15/0.93	15/0.91	NR
	9.53 [3/8]	15.88 [5/8]	8/1/00	15/0.99	15/0.98	15/0.98	15/0.97	12/0.96
	12.7 [1/2]	19.05 [3/4]	8/1/00	15/0.99	15/0.98	15/0.98	15/0.97	15/0.96

NOTES:

1. Do not exceed 46 meters linear line length.
2. *Do not exceed 15 meters vertical separation if outdoor unit is above indoor unit.
3. **19.05 mm [3/4 in.] suction line should only be used for 1.5 ton systems if outdoor unit is below or at same level as indoor to assure proper oil return.
4. Always use the smallest liquid line allowable to minimize refrigerant charge.
5. Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
6. Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

Performance Data @ AHRI Standard Conditions – Cooling

Designated Tested Combination							
Outdoor Unit	Indoor Coil or Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER	EER	Indoor CFM [L/s]
FO2417CTJ	FH2421ELVJM	24000 [7.0]	17800 [5.2]	6200 [1.8]	20.50	14.50	825 [389.4]
FO3617CTJ	FH6021ELVJS	36000 [10.6]	27100 [7.9]	8900 [2.6]	20.50	13.00	1225 [578.1]
FO4817CTJ	FH6021ELVJS	46000 [13.5]	34400 [10.1]	11600 [3.4]	20.50	13.00	1550 [731.5]
FO6017CTJ	FH6024ELVJM	57000 [16.7]	40800 [12.0]	16200 [4.7]	20.50	13.00	1650 [778.7]

Note: Additional ratings and system match ups and downloadable ratings certificates can be accessed from the AHRI website: www.ahridirectory.org

[] Designates Metric Conversions

GUIDE SPECIFICATIONS

General

System Description

Outdoor-mounted, air-cooled, split-system air conditioner composite base pan unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, forward swept blade propeller-type condenser fan, suction and legend line service valve, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a coil unit.

Quality Assurance

- Unit will be rated in accordance with the latest edition of AHRI Standard 210.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ANSI/ASHRAE and with NEC.
- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have c-UL-us approval.
- Unit cabinet will be capable of withstanding ASTM B117 1000-hr salt spray test.
- Air-cooled condenser coils will be leak tested at 150 psig and pressure tested at 550 psig.
- Unit constructed in ISO9001 approved facility.

Delivery, Storage, and Handling

- Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer) – U.S. and Canada only.

Products

Equipment

Factory assembled, single piece, air-cooled air conditioner unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge R-410A, and special features required prior to field start-up.

Unit Cabinet

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.
- All units constructed with louver coil protection and corner post. Louver can be removed by removing one fastener per louver panel.

AIR-COOLED, SPLIT-SYSTEM AIR CONDITIONER

FO*20C

1-1/2 TO 5 NOMINAL TONS

Fans

- Condenser fan will be direct-drive propeller type, discharging air upward.
- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with coated steel wire safety guards.

Compressor

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.
- Compressor will be covered with a sound absorbing blanket.

Condenser Coil

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper tubes.

Refrigeration Components

- Refrigeration circuit components will include liquid-line shutoff valve with sweat connections, vapor-line shutoff valve with sweat connections, system charge of R-410A refrigerant, and compressor oil.
- Unit will be equipped with filter drier for R-410A refrigerant for field installation.

Operating Characteristics

- The capacity of the unit will meet or exceed _____ Btuh at a suction temperature of _____ °F/°C. The power consumption at full load will not exceed _____ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of _____ Btuh or greater at conditions of _____ CFM entering air temperature at the evaporator at _____ °F/°C wet bulb and _____ °F/°C dry bulb, and air entering the unit at _____ °F/°C.
- The system will have a SEER of _____ Btuh/watt or greater at DOE conditions.

Electrical Requirements

- Nominal unit electrical characteristics will be _____ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- Nominal unit electrical characteristics will be _____ v, three phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.

Special Features

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.
- EcoNet control with appropriate software version is required for full featured operation.

GENERAL TERMS OF LIMITED WARRANTY*

Fujitsu General America, Inc. will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

***For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.**

Conditional Parts
(Registration Required) Ten (10) Years
Parts Ten (10) Years

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

"In keeping with its policy of continuous progress and product improvement, the right is reserved to make changes without notice."