

SUBMITTAL DATA SHEET



LX SERIES SPLIT SYSTEM AIR CONDITIONERS 13 SEER – R-410A – 1 PHASE – 1.5 THRU 5 NOMINAL TONS MODELS: YFD18 THRU 60

JOB NAME:			LOCATION:		
PURCHASER:			ORDER NO:		
ENGINEER:					
SUBMITTED TO:		FOR:	REF:	APPROVAL:	CONSTRUCTION:
SUBMITTED BY:			DATE:		
UNIT DESIGNATION:			SCHEDULE NO.	MODEL NO.	

PRODUCT DATA

Cooling Performance

Total Capacity _____ MBH
Outdoor Design Temp _____ °F

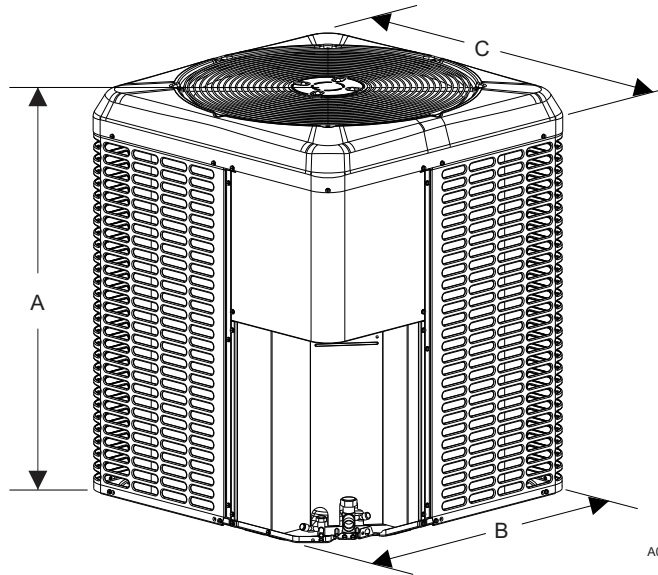
Electrical Data

Power Supply _____ / _____ / _____
Compressor Ampacity _____ AMPs
Total Unit Ampacity _____ AMPs
Power Input Req _____ KW
Minimum Wire Size _____ AWG
Maximum Overcurrent Device
 Fuses Circuit Breaker

Unit Weight

Unit Weight _____ LBS

DIMENSIONS - INCHES



A0339-001

DIMENSIONS

Unit Model	Dimensions (Inches)			Refrigerant Connection Service Valve Size	
	A	B	C	Liquid	Vapor
YFD18B21S	33-1/4	24	24	3/8	3/4
YFD24B21S	33-1/4	24	24		
YFD30B21S	36-1/4	29-1/4	29-1/4		
YFD36B21S	36-1/4	29-1/4	29-1/4		7/8
YFD42B21S	33-1/4	35-1/4	31-3/4		
YFD48B21S	36-1/4	35-1/4	31-3/4		
YFD60B21S	39-1/2	38	34-1/4	1-1/8‡	

‡ Adapter fitting must be field installed for the required 1-1/8" line set.
All dimensions are in inches and are subject to change without notice.
Overall height is from bottom of base pan to top of fan guard.
Overall length and width include screw heads.



FEATURES

- **Quality Coils** - Enhanced aluminum fins are mechanically bonded to copper tubing.
- **Scroll Compressor** - Featuring the newest generation of high efficiency scroll compressors.
- **Copper filter-drier** - The factory installed filter drier features copper construction for reliable long term protection
- **Easier Installation** - Independent panels provide quick access for unit setup. Installation time is reduced by easy power and control wiring access. Options are provided for indoor piston or TXV. The factory installed filter-drier and factory charge for a 15-Ft lineset means less time spent brazing and charging the system. The small base dimension and reduced unit clearances make for easier retrofits.
- **Accessible Information** - QR code on unit provides quick access to technical documents and warranty information.
- **Durable Finish** - The coated steel wire fan guard, coated external fasteners, and pre-treated G90-equivalent galvanized steel chassis components resist corrosion and rust creep. Champagne colored powdercoat paint further protects external panels.
- **Rugged Coil Protection** - Coils are protected from mechanical damage by a proven stamped steel coil guard design
- **Protected Compressor** - Compressors are protected internally by a high pressure relief valve and a temperature sensor, and externally by the system high pressure switch. The liquid line filter-drier is factory installed to protect the compressor against moisture and debris.
- **Reliable Operation** - Ball bearing fan motors provide superior performance in extreme temperatures.
- **Environmentally Friendly** - CFC-free R-410A refrigerant delivers environmentally friendly performance with zero ozone depletion.
- **Top Discharge** - Warm air is blown up, away from the structure and any landscaping and allows compact location on multi-unit applications.
- **Low Operating Sound Levels** - The sturdy cabinet and top design provides sound performance of 76 dBA or lower. Compatible accessories for further sound reduction are also available.
- **Better Service Access** - Diagonal base valves with open access for low-loss fittings, single panel access to the electrical controls, swing out control box for full corner access, and removable fan guard allow easy access for unit maintenance.
- **Agency Listed** - Safety certified by CSA to UL 1995 / CSA 22.2. Performance certified to ANSI/AHRI Standard 210/240 in accordance with the Unitary Small Equipment certification program.

WARRANTY SUMMARY*

Standard 5-Years limited parts warranty.

Standard 10-Years limited compressor warranty.

Extended 10-Years limited parts warranty when product is registered online within 90 days of purchase for replacement or closing for new home construction.

*Does not apply to R-22 models, 3-Phase models, or Internet sales. See Limited Warranty certificate in User's Information Manual for details.

TYPICAL CLEARANCES

The minimum clearances for a typical installation are shown below. See the Technical Guide for alternate installations.

- 10" Clearance Coil Area
- 48" Overhead Clearance
- 18" Minimum Service Panel Access
- 24" Minimum Unit to Unit Distance

MATCHING AIR SIDE EQUIPMENT

Model No. _____

Submittal Form No. _____

FIELD INSTALLED ACCESSORIES

OD Unit Anti Short Cycle Kit (S1-2TD08700124BK)

Standard Low Ambient Control (S1-2LA06700424)

Advanced Low Ambient Control (S1-2LA04701024)

Low Pressure Switch Kit (S1-2PS06700524)

High Ambient Condenser Fan Motor S1-FHM****HT

Outdoor Communicating Board Kit S1-33102952310

Indoor Blower-Off Delay Kit S1-2FD06700224

Compressor Start Assist (S1-2SA067_____)*

Compressor Crankcase Heater (S1-025_____)*

Support Feet (S1-HPRKIT-_____)*

Anchor Bracket Kit (S1-1HK0401)

Indoor TXV Kit (S1-1TVM_____)**

Wall Mount Kit (S1-ACB-_____)**

Winter Cover Kit (S1-CCVRE_____)**

Cold Weather Charging Tent S1-CHGTENT01

Touch-up Paint (S1-5130153_____)**

Compressor Sound Blanket (S1-010076_____)**

* See price pages for accessory information.

Refer to Technical Guide for detailed specifications on the unit and its accessories.

Verify the actual ratings for each specific matchup in the online AHRI directory at www.ahridirectory.org at the time of bid or sale. It is also recommended to print the rating certificate, if needed, at the time of bid or sale.

TABULAR DATA SHEET

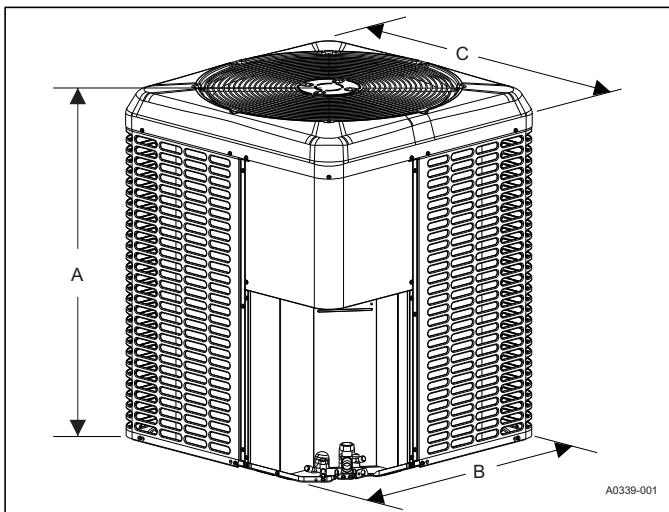


LX SERIES SPLIT SYSTEM AIR CONDITIONERS 13.0 SEER – R-410A – 1 PHASE – 1.5 THRU 5 NOMINAL TONS MODELS: YFD18 THRU 60

PHYSICAL AND ELECTRICAL DATA

MODEL	YFD18B21S	YFD24B21S	YFD30B21S	YFD36B21S	YFD42B21S	YFD48B21S	YFD60B21S
Unit Supply Voltage	208-230V, 1 ϕ , 60Hz						
Normal Voltage Range ¹	187 to 252						
Minimum Circuit Ampacity	11.7	14.5	18.1	18.9	23.7	25.7	31.1
Max. Overcurrent Device Amps ²	20	25	30	30	40	45	50
Min. Overcurrent Device Amps ³	15	15	20	20	25	30	35
Compressor	Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Rated Load	9.0	10.9	13.4	14.1	17.9	19.5
	Locked Rotor	47.5	62.9	72.5	77.0	112.0	130.0
Crankcase Heater	No	No	No	No	No	No	No
Factory External Discharge Muffler	No	No	No	No	No	No	No
HS Kit Required with TXV	No	No	No	No	No	No	No
Fan Diameter Inches	18	18	22	22	24	24	26
Fan Motor	Rated HP	1/12	1/12	1/4	1/4	1/4	1/4
	Rated Load Amps	0.64	0.64	1.30	1.30	1.30	1.30
	Nominal RPM	1000	1000	850	850	850	850
	Nominal CFM	2080	2200	3240	3460	3850	3900
Coil	Face Area Sq. Ft.	13.06	13.06	17.94	17.94	19.49	21.66
	Rows Deep	1	1	1	1	1	1
	Fins / Inch	22	22	22	22	22	25
Liquid Line Set OD (Field Installed)	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Vapor Line Set OD (Field Installed) ⁴	3/4	3/4	3/4	3/4	7/8	7/8	1-1/8 [‡]
Unit Charge (Lbs. - Oz.) ⁵	4 - 5	4 - 9	6 - 2	6 - 1	6 - 8	7 - 6	8 - 8
Charge Per Foot, Oz.	0.62	0.62	0.62	0.62	0.67	0.67	0.75
Operating Weight Lbs.	118	118	149	155	184	210	216

1. Rated in accordance with AHRI Standard 110-2012, utilization range "A".
2. Dual element fuses or HACR circuit breaker. Maximum allowable overcurrent protection.
3. Dual element fuses or HACR circuit breaker. Minimum recommended overcurrent protection.
4. For applications with non-standard vapor line sizes, see the "Applications & Accessories" section of this Technical Guide.
5. The Unit Charge is correct for the outdoor unit, smallest matched indoor unit, and 15 feet of refrigerant tubing. For tubing lengths other than 15 feet, add or subtract the amount of refrigerant, using the difference in actual lineset length (not the equivalent length) multiplied by the per foot value.



DIMENSIONS

Unit Model	Dimensions (Inches)			Refrigerant Connection Service Valve Size	
	A	B	C	Liquid	Vapor
YFD18B21S	33-1/4	24	24	3/8	3/4
YFD24B21S	33-1/4	24	24		
YFD30B21S	36-1/4	29-1/4	29-1/4		
YFD36B21S	36-1/4	29-1/4	29-1/4		7/8
YFD42B21S	33-1/4	35-1/4	31-3/4		
YFD48B21S	36-1/4	35-1/4	31-3/4		
YFD60B21S	39-1/2	38	34-1/4	1-1/8 [‡]	

[‡] Adapter fitting must be field installed for the required 1-1/8" line set.
All dimensions are in inches and are subject to change without notice.
Overall height is from bottom of base pan to top of fan guard.
Overall length and width include screw heads.

SYSTEM CHARGE FOR VARIOUS MATCHED SYSTEMS

Outdoor Unit	YFD18B21S	YFD24B21S	YFD30B21S	YFD36B21S	YFD42B21S	YFD48B21S ¹	YFD60B21S
Required Orifice or TXV ^{2,3}	0.048 / BA1	BA1	0.065 / BB1	0.068 / BC1	0.077 / BC1	0.080 / BC1	BD1
Indoor Unit ^{4,5,6,7}	Additional Charge, oz						
AP18B	0	–	–	–	–	–	–
AP24B	3	0	–	–	–	–	–
AP30B	10	7	2	–	–	–	–
AP36B	10	7	2	0	–	–	–
AP36C	–	11	2	2	–	–	–
AP42C	–	11	2	2	0	–	–
AP48(C,D)	–	–	–	5	5	0 oz TXV ONLY	–
AP60(C,D)	–	–	–	–	9	12	0
AE18B	0	–	–	–	–	–	–
AE24B	3	0	–	–	–	–	–
AE30B	8	5	0	–	–	–	–
AE36(B,C)	10	7	2	0	–	–	–
AE42C	–	–	–	5	0	–	–
AE48(C,D)	–	–	–	5	5	0 oz TXV ONLY	–
AE60C	–	–	–	–	9	12	0
AE60D	–	–	–	–	29	30	16
AVC18B	0	–	–	–	–	–	–
AVC24B	3	0	–	–	–	–	–
AVC30B	8	5	0	–	–	–	–
AVC36(B,C)	10	7	2	0	–	–	–
AVC42C	–	–	–	5	0	–	–
AVC48(C,D)	–	–	–	5	5	0 oz TXV ONLY	–
AVC60C	–	–	–	–	9	12	0
AVC60D	–	–	–	–	29	30	16
CF/CM/CU18(A,B)	0	–	–	–	–	–	–
CF/CM/CU24(A,B)	3	0	–	–	–	–	–
CF/CM/CU30(A,B,C)	8	5	0	–	–	–	–
CF/CM/CU36(A,B,C)	10	7	2	0	–	–	–
CF/CM/CU42(B,C,D)	–	11	2	2	0	–	–
CF/CM/CU48(C,D)	–	–	–	5	5	0 oz TXV ONLY	–
CF/CM/CU60(C,D)	–	–	–	–	9	12	0
CF/CM64D	–	–	–	–	29	30	16

Some of the combinations shown in the above System Charge table require Advanced Main Air Circulating Fan indoor product. For approved coil only matches, please see the "COOLING CAPACITY - Upflow, Downflow & Horizontal Furnaces and Coils" table.

FOOTNOTES:

- For all 4 ton indoor coils, TXVs are required for match. Any match coil larger than 4 ton may use orifice or TXV.
- For applications requiring a TXV, use S1-1TVM*** series kit.
- Approved orifice(s) shipped with outdoor unit.
- Systems matched with furnaces or air handlers not equipped with blower-off delays may require blower Time Delay Kit S1-2FD06700224.
- CF coils cannot be used in horizontal applications.
- Charge adders shown above do not indicate that coils are rated for every application. Refer to Performance Data Tables for actual performance for specified system matches. Obtain certified system ratings from www.ahridirectory.org.
- All matches that state TXV only must use a TXV. There are no approved orifices for these match ups.

CHARGING PROCEDURES:

- Check the Factory Unit Charge listed on the unit nameplate to verify the refrigerant charge for the outdoor unit, the smallest matched indoor unit, and the 15 feet of interconnecting lineset.
- Verify the indoor metering device and additional charge required for the specific matched indoor unit in the system using the above table.
- Add additional charge for the amount of interconnecting lineset tubing greater than 15 feet at the rate specified in Physical and Electrical Data Table.
- For installations requiring additional charge, weigh in refrigerant for the specific matching indoor unit and actual lineset length.
- Once the charge adders for matched indoor unit and for lineset have been weighed in, verify the system operation against the temperatures and pressures in the Charging Chart for the outdoor unit. Locate Charging Charts on the outdoor unit and also in the Service Data Application Guide on www.upgnet.com. Follow the Subcool or Superheat charging procedure in the Installation Manual according to the type of indoor metering device in the system, and allow ten minutes after each charge adjustment for the system operation to stabilize. Record the charge adjustment made to match the Charging Chart.
- Permanently stamp the unit nameplate with the TOTAL SYSTEM CHARGE defined as follows: TOTAL SYSTEM CHARGE = Base Charge (as shipped) + charge adder for matched indoor unit + charge adder for actual lineset length + charge adjustments to match the Charging Chart.

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5192330-YTD-B-0916

Supersedes: 5192330-YTD-A-0816

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