

# TABULAR DATA SHEET

## LX SERIES SPLIT SYSTEM AIR CONDITIONERS

13.0 SEER – R-410A – 3 PHASE – 2.5 THRU 5 NOMINAL TONS

MODELS: TCD30 THRU 60

### PHYSICAL AND ELECTRICAL DATA

MODEL		TCD30 B31S	TCD36 B31S	TCD42 B31S	TCD48 B31S	TCD60 B31S	TCD30 B41S	TCD36 B41S	TCD42 B41S	TCD48 B41S	TCD60 B41S	TCD36 B51S	TCD48 B51S	TCD60 B51S
Unit Supply Voltage		208-230V, 3 $\phi$ , 60Hz					460V, 3 $\phi$ , 60Hz					575V, 3 $\phi$ , 60Hz		
Normal Voltage Range <sup>1</sup>		187 to 252					432 to 504					540 to 630		
Minimum Circuit Ampacity		11.5	12.1	16.1	18.4	21.2	5.8	6.3	7.1	8.4	10.3	5.4	6.6	7.7
Max. Overcurrent Device Amps <sup>2</sup>		20	20	25	30	35	15	15	15	15	15	15	15	15
Min. Overcurrent Device Amps <sup>3</sup>		15	15	20	20	25	15	15	15	15	15	15	15	15
Compressor	Type	Recip	Recip	Recip	Scroll	Scroll	Recip	Recip	Recip	Scroll	Scroll	Recip	Scroll	Scroll
	Rated Load	8.6	8.6	11.8	13.7	15.9	4.3	4.5	5.2	6.2	7.7	3.8	4.8	5.7
	Locked Rotor	63.0	68.0	88.0	83.1	110.0	30.0	34.0	44.0	41.0	52.0	28.0	33.0	38.9
Crankcase Heater		No	No	No	No	No	No	No	No	No	No	No	No	No
Factory External Discharge Muffler		No	No	Yes	No	No	No	No	Yes	No	No	No	No	No
Fan Diameter Inches		22	22	24	24	26	22	22	24	24	26	22	24	26
Fan Motor	Rated HP	1/8	1/4	1/4	1/4	1/4	1/8	1/4	1/4	1/4	1/4	1/4	1/4	1/4
	Rated Load Amps	0.80	1.30	1.30	1.30	1.30	0.40	0.65	0.65	0.65	0.65	0.58	0.58	0.58
	Nominal RPM	1075	850	850	850	850	1075	850	850	850	850	850	850	850
	Nominal CFM	2950	3275	3500	3500	4300	2850	3200	3650	3650	4075	3300	3550	4125
Coil	Face Area Sq. Ft.	13.83	17.37	18.74	18.74	23.40	13.83	17.37	18.74	18.74	23.40	17.37	18.74	23.40
	Rows Deep	1	1	1	1	1	1	1	1	1	1	1	1	1
	Fins / Inch	23	23	23	23	23	23	23	23	23	23	23	23	23
Liquid Line Set OD (Field Installed)		3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Vapor Line Set OD (Field Installed) <sup>4</sup>		3/4	3/4	7/8	7/8	1-1/8 <sup>‡</sup>	3/4	3/4	7/8	7/8	1-1/8 <sup>‡</sup>	3/4	7/8	1-1/8 <sup>‡</sup>
Unit Charge (Lbs. - Oz.) <sup>5</sup>		4 - 3	4 - 14	5 - 2	4 - 15	5 - 12	4 - 3	4 - 14	5 - 2	4 - 15	5 - 12	4 - 14	4 - 15	5 - 12
Charge Per Foot, Oz.		0.62	0.62	0.67	0.67	0.75	0.62	0.62	0.67	0.67	0.75	0.62	0.67	0.75
Operating Weight Lbs.		155	180	215	200	205	155	180	215	200	205	180	200	205

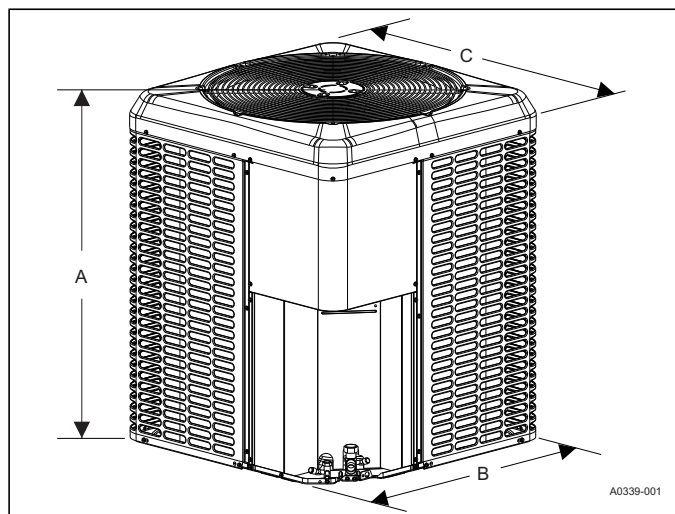
1. Rated in accordance with AHRI Standard 110-2012, utilization range "A".

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
TCD30B(3,4)1S	30	29-1/4	29-1/4	3/8	3/4
TCD36B(3,4,5)1S	36-1/4	29-1/4	29-1/4		7/8
TCD42B(3,4)1S	33-1/4	35-1/4	31-3/4		
TCD48B(3,4,5)1S	33-1/4	35-1/4	31-3/4		
TCD60B(3,4,5)1S	36-1/4	38	34-1/4		7/8 <sup>‡</sup>

<sup>‡</sup> 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	TCD30B(3,4)1S	TCD36B(3,4,5)1S	TCD42B(3,4)1S	TCD48B(3,4,5)1S	TCD60B(3,4,5)1S
Required TXV <sup>1,2</sup>	BB1	BC1	BC1	BC1	BD1
Indoor Unit <sup>3,4,5</sup>	Additional Charge, oz				
AP18B	—	—	—	—	—
AP24B	—	—	—	—	—
AP30B	2	—	—	—	—
AP36B	2	0	—	—	—
AP36C	2	2	—	—	—
AP42C	2	2	0	—	—
AP48(C,D)	—	5	2	0	—
AP60(C,D)	—	—	9	2	0
AE18B	—	—	—	—	—
AE24B	—	—	—	—	—
AE30B	0	—	—	—	—
AE36(B,C)	2	0	—	—	—
AE42C	—	5	2	—	—
AE48(C,D)	—	5	2	0	—
AE60C	—	—	9	2	0
AE60D	—	—	29	22	20
AVC18B	—	—	—	—	—
AVC24B	—	—	—	—	—
AVC30B	0	—	—	—	—
AVC36(B,C)	2	0	—	—	—
AVC42C	—	5	2	—	—
AVC48(C,D)	—	5	2	0	—
AVC60C	—	—	9	2	0
AVC60D	—	—	29	22	20
CF/CM/CU18(A,B)	—	—	—	—	—
CF/CM/CU24(A,B)	—	—	—	—	—
CF/CM/CU30(A,B,C)	0	—	—	—	—
CF/CM/CU36(A,B,C,D)	2	0	—	—	—
CF/CM/CU42(B,C,D)	2	2	0	—	—
CF/CM/CU48(C,D)	—	5	2	0	—
CF/CM/CU60(C,D)	—	—	9	2	0
CF/CM64D	—	—	29	22	20

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:

1. For applications requiring a TXV, use S1-1TVM\*\*\* series kit.
2. A TXV kit must be used with these indoor units to obtain system performance.
3. Systems matched with furnaces or air handlers not equipped with blower-off delays may require blower Time Delay Kit S1-2FD06700224.
4. CF coils cannot be used in horizontal applications.
5. 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](http://www.ahridirectory.org).

### CHARGING PROCEDURES:

1. 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.
2. Verify the indoor metering device and additional charge required for the specific matched indoor unit in the system using the above table.
3. Add additional charge for the amount of interconnecting lineset tubing greater than 15 feet at the rate specified in Physical and Electrical Data Table.
4. For installations requiring additional charge, weigh in refrigerant for the specific matching indoor unit and actual lineset length.
5. 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](http://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.
6. 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.