

TABULAR DATA SHEET

Horizontal Discharge Split System Air Conditioner

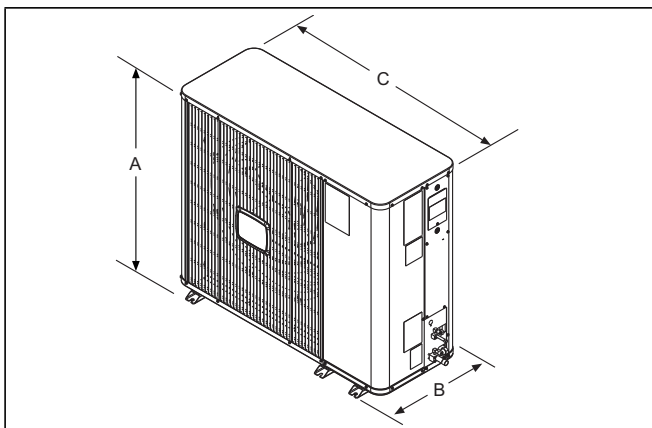
13 SEER - R-410A - 3 PHASE - 2.5 TO 5 NOMINAL TON

MODELS: TCHD30 TO 60 (3 ϕ)

PHYSICAL AND ELECTRICAL DATA

MODEL	TCHD30 S43S3	TCHD36 S43S3	TCHD48 S43S3	TCHD60 S43S3	TCHD30 S44S3	TCHD36 S44S3	TCHD48 S44S3	TCHD60 S44S3
Unit Supply Voltage	208-230 V, 3 ϕ , 60 Hz				460 V, 3 ϕ , 60 Hz			
Normal Voltage Range ¹	187 to 252				432 to 504			
Minimum Circuit Ampacity	11.9	17.5	21.5	21.0	7.2	8.8	10.4	10.5
Maximum Overcurrent Device (A) ²	20	30	35	35	15	15	15	15
Minimum Overcurrent Device (A) ³	15	20	25	25	15	15	15	15
Compressor (A)	Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Rated Load	8.4	12.8	16.0	15.7	5.2	6.4	7.7
	Locked Rotor	58.0	95.0	115.0	110.0	28.0	45.0	50.0
Crankcase Heater	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Factory External Discharge Muffler	No	No	No	No	No	No	No	No
Factory External Check Valve	No	No	No	No	No	No	No	No
Fan Diameter (in.)	23	23	23	23	23	23	23	23
Fan Motor	Rated HP	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4
	Rated Load (A)	1.5	1.5	1.5	1.5	0.8	0.8	0.8
	Nominal RPM	850	850	850	850	850	850	850
	Nominal CFM	3200	3200	3050	3050	3200	3200	3050
Coil	Face Area (ft ²)	11.96	11.96	13.96	13.96	11.96	11.96	13.96
	Rows Deep	1	1	1	1	1	1	1
	Fins per Inch	23	23	23	23	23	23	23
Refrigerant Lines ⁴	Maximum Length	200	200	200	200	200	200	200
	Maximum Lift	65	65	65	65	65	65	65
	Maximum Drop	150	150	150	150	150	150	150
	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)	3/4	3/4	7/8	7/8	3/4	3/4	7/8
Unit Charge (lb - oz) ⁵	4 - 0	4 - 8	5 - 5	5 - 6	4 - 0	4 - 8	5 - 5	5 - 6
Charge (oz/ft)	0.62	0.62	0.67	0.67	0.62	0.62	0.67	0.67
Operating Weight (lb)	180	200	225	235	180	200	225	235

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. When more than 50 ft of interconnecting tubing and more than 30 ft of vertical lift is used, refer to the *Piping Application Data Sheet* (part number 247077). For long-line applications, interconnecting lines over 100 ft must be installed with liquid line solenoid.
5. The unit charge is correct for the outdoor unit, smallest matched indoor unit, and 15 ft of refrigerant tubing. For tubing lengths other than 15 ft, add or subtract the amount of refrigerant, using the difference in length multiplied by the per foot value.



DIMENSIONS

Unit Model	Dimensions (in.)			Refrigerant Connection Service Valve Size	
	A	B	C	Liquid	Vapor
TCHD30S4(3,4)S3	37 1/4	20	45	3/8	3/4
TCHD36S4(3,4)S3	37 1/4	20	45		
TCHD48S4(3,4)S3	43 1/4	20	45		7/8
TCHD60S4(3,4)S3	43 1/4	20	45		

All dimensions are in inches and are subject to change without notice.
 Overall height is from bottom of mounting feet to top of unit.
 Overall length and width include mounting feet and screw heads.

SYSTEM CHARGE FOR VARIOUS COPPER MATCHED SYSTEMS

Outdoor Unit	TCHD30 S4(3,4)S3	TCHD36 S4(3,4)S3	TCHD48 S4(3,4)S3	TCHD60 S4(3,4)S3
Required TXV ^{1,2}	4G1	4G1	4J1	4K1
Indoor Unit ^{3,4,5}	Additional Charge (oz)			
AHE30B	10	-	-	-
AHE36C	16	12	-	-
AHE42D	27	22	-	-
AHE48D	-	-	11	-
AHE60D	-	-	16	13
AHR30B	10	-	-	-
AHR36B	16	12	-	-
AHR42C	-	22	-	-
AHR48D	-	-	11	-
AHR60D	-	-	16	-
AHV30B	0	-	-	-
AHV36C	7	0	-	-
AHV42D	18	11	-	-
AHV48D	-	10	0	-
AHV60D	-	-	4	0
FC/MC/PC32	10	6	-	-
FC/MC/PC35	10	6	-	-
FC/MC/PC37	16	12	-	-
FC/MC/PC43	16	0	-	-
FC/MC/PC48	27	22	0	-
FC/MC/PC60	-	-	10	-
FC/MC62	-	-	16	0
FC64	-	-	25	11
HD36	14	11	-	-
HD48	-	33	24	-
HD60	-	-	30	22
UC48	21	17	6	-
UC60	-	-	11	-

Some of the combinations shown in this table require advanced main air circulating fan indoor product. For approved coil only matches, refer to the *COOLING CAPACITY - Upflow, Downflow, and Horizontal Furnaces and Coils* table in the *Technical Guide*.

SYSTEM CHARGE FOR VARIOUS ALUMINUM MATCHED SYSTEMS

Outdoor Unit	TCHD30 S4(3,4)S3	TCHD36 S4(3,4)S3	TCHD48 S4(3,4)S3	TCHD60 S4(3,4)S3
Required TXV ^{1,2}	BA1	BC1	BC1	BD1
Indoor Unit ^{3,4,5}	Additional Charge (oz)			
AP18B	-	-	-	-
AP24B	-	-	-	-
AP30B	14	-	-	-
AP36B	-	14	-	-
AP36C	-	14	-	-
AP37C	22	18	-	-
AP42C	-	-	-	-
AP48C	-	18	7	-
AP48D	-	-	7	0
AP60C	-	-	9	-
AP60D	-	-	9	2
AE18B	-	-	-	-
AE24B	-	-	-	-
AE30B	12	-	-	-
AE36(B,C)	14	14	-	-
AE42C	22	18	-	-
AE48(C,D)	22	18	7	-
AE60C	-	22	9	-
AE60D	-	42	29	22
AVC18B	-	-	-	-
AVC24B	-	-	-	-
AVC30B	12	-	-	-
AVC36(B,C)	14	12	-	-
AVC42C	22	18	-	-
AVC48(C,D)	22	18	7	-
AVC60C	-	22	9	-
AVC60D	-	42	29	22
CF/CM/CU18(A,B)	-	-	-	-
CF/CM/CU24(A,B)	-	-	-	-
CF/CM/CU30(A,B,C)	12	-	-	-
CF/CM/CU36(A,B,C,D)	14	-	-	-
CF/CM/CU42(B,C,D)	18	14	-	-
CF/CM/CU48(C,D)	22	18	7	-
CF/CM/CU60(C,D)	-	22	9	2
CF/CM/CU50C	-	26	-	-
CF/CM/CU61D	-	26	-	-
CF/CM64D	-	42	29	22

Some of the combinations shown in this table require advanced main air circulating fan indoor product. For approved coil only matches, refer to the *COOLING CAPACITY - Upflow, Downflow, and Horizontal Furnaces and Coils* table in the *Technical Guide*.

- For applications requiring a TXV, use S1-1TVM*** series kit.
- A TXV kit must be used with these indoor units to obtain system performance.
- Systems matched with furnaces or air handlers not equipped with blower-off delays may require 60-s time delay.
- CF or PC coils cannot be used in horizontal applications.
- Charge adders shown above do not indicate that coils are rated for every application. Refer to the performance data tables in the *Technical Guide* for actual performance for specified system matches. Obtain certified system ratings from www.ahrirectory.org.

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 ft of interconnecting lineset.
- Verify the indoor metering device and additional charge required for the specific matched indoor unit in the system using the relevant table above.
- Add additional charge for the amount of interconnecting lineset greater than 15 ft at the rate specified in the *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 the matched indoor unit and lineset have been weighed in, verify the system operation against the temperatures and pressures in the charging chart for the outdoor unit. Locate the charging charts on the outdoor unit and in the *Service Data Application Guide* on www.simplygettingthejobdone.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 10 min after each charge adjustment for the system operation to stabilize. Record the charge adjustment made to match the charging chart.
- Permanently stamp the unit data plate 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.