

HFC-410A CHARGING INFORMATION – FOR COMPLETE CHARGING DETAILS, REFER TO THE OUTDOOR UNIT INSTALLATION AND SERVICE PROCEDURE

Maintenance checks using the Normal Operating Pressures table

Table 2 may be used to help perform maintenance checks. This table is not a procedure for charging the system and any minor variations in the pressures may be expected due to differences in installations. However, significant deviations could mean that the system is not properly charged or that a problem exists with some component in the system.

Charge Using the Subcooling Method

Cooling Mode – When the outdoor ambient temperature is 60°F (15°C) and above, use the cooling mode to adjust the charge using the subcooling method. Target subcooling values in table 1 are based on 70 to 80°F (21-27°C) indoor return air temperature.

Heating Mode – When the outdoor ambient temperature is below 60°F (15°C), use the heating mode to adjust the charge using the subcooling charge levels. Target subcooling values in table 1 are based on 65-75°F (18-24°C) indoor return air temperature.

Table 1 – Normal Operating Pressures (Liquid ±10 and Suction ±5 psig)

°F*	Heating Mode					Cooling Mode					
	20	30	40	50	60	65	75	85	95	105	115
SIZE	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ
-018	277/69	292/84	309/101	324/119	341/139	226/145	262/147	303/150	348/152	400/154	455/157
-024	281/65	294/80	308/95	319/113	335/130	234/142	271/145	315/146	362/149	415/151	473/152
-030	276/53	287/76	301/92	315/108	329/126	238/140	273/143	319/145	369/147	419/150	475/151
-036	279/61	292/71	307/85	328/109	344/128	228/139	265/141	307/144	353/147	404/150	461/151
-042	320/65	342/78	354/95	376/110	402/127	227/134	261/137	305/140	352/142	403/145	462/147
-048	322/63	340/75	349/85	357/96	400/124	230/129	267/132	310/136	356/139	409/142	466/144
-060	311/62	324/68	339/82	371/105	391/122	231/126	262/131	308/135	354/138	404/140	461/143

*Temperature of air entering the outdoor coil.

Matchups/Charge Levels and Line Set Lengths

Table 2 lists all the recommended indoor unit matchups along with the charge levels for the various sizes of outdoor units. **Charge levels on the unit nameplate are based on installations with 15ft. (4.6m) line sets; on line sets with 3/8(9.5mm) liquid line, add 0.6oz. additional refrigerant for every 1ft. longer than 15ft. If line length is less than 15ft., subtract this amount (see Installation Instructions for more details).**

Charge Using the Weigh-in Method

If the system is void of refrigerant, locate and repair any leaks and then weigh in the refrigerant charge into the unit. For charge adjustments, be sure to consider line set length differences and, referring to table 1, adjust for the matchup difference.

- 1 - Recover the refrigerant from the unit.
- 2 - Conduct leak check; evacuate as previously outlined.
- 3 - Weigh in the unit nameplate charge, adjusting for matchup and line set length differences. If weighing facilities are not available use the Subcooling method.

Table 2 – Indoor Unit Matches and Subcooling Charge Levels and Additional Charge**

Indoor Matchup	Subcool		Additional Charge lbs / oz
	Heat (±5°F)	Cool (±1°F)	
4HP15L18P/ 4HP14B18P/ BHP15L18P			
BCE5C18/ BCE5E18/ BCE5V18	12	5	6 oz.
BCE5C24/ BCE5E24/ BCE5V24	9	6	10 oz.
BCE7E24/ BCE7S24	13	8	10 oz.
EA(C;U)1P24-50/ EAC4X24-50	13	5	9 oz.
EA(C;U)1P30-50/ EAC4X30-50	12	6	1 lb 2 oz
ED1P24	15	6	11 oz
ED1P30/36	20	4	11 oz
EAH1P24A	14	4	7 oz
EAH1P24B	14	4	0 oz
4HP15L24P/ 4HP14B24P/ BHP15L24P			
BCE5C24/ BCE5E24/ BCE5V24	11	9	1 lb 0 oz
BCE5C30/ BCE5E30/ BCE5V30	11	6	9 oz.
BCE7E24/ BCE7S24	9	4	0 oz
BCE7E30/ BCE7S30	12	10	1 lb 1 oz
EA(C;U)1P24-50/ EAC4X24-50	17	8	8 oz
EA(C;U)1P30-50/ EAC4X30-50	13	8	12 oz
ED1P24	16	6	10 oz.
ED1P30/36	22	4	4 oz
EAH1P24A	17	6	5 oz
EAH1P24B	16	6	1 oz
EAH1P30A	11	6	11 oz
EAH1P30B	12	6	8 oz
4HP15L30P/ 4HP14B30P/ BHP15L30P			
BCE5C30/ BCE5E30/ BCE5V30	7	6	10 oz
BCE5C36/ BCE5E36/ BCE5V36	5	8	15 oz
BCE7E30/ BCE7S30	9	9	1 lb 2 oz
BCE7E36/ BCE7S36	8	7	15 oz
EA(C;U)1P30-50/ EAC4X30-50	9	7	12 oz

Indoor Matchup	Subcool		Additional Charge
	Heat (±5°F)	Cool (±1°F)	
EA(C;U)1P30/36-50 EAC4X30/36-50	19	4	4 oz
EA(C;U)1P36-50/ EAC4X36-50	7	5	11 oz
ED1P30/36	18	4	11 oz
EAH1P30A	6	4	11 oz
EAH1P30B	6	3	9 oz.
EAH1P36A	13	5	4 oz
EAH1P36B	12	3	0 oz
EAH1P36C	7	4	13 oz
4HP15L36P/ 4HP14B36P/ BHP15L36P			
BCE5C36/ BCE5E36/ BCE5V36	7	6	2 oz
BCE5C42/ BCE5E42/ BCE5V42	4	6	1 lb 7 oz
BCE7E36/ BCE7S36	10	6	8 oz
BCE7E42/ BCE7S42	4	5	2 lb 1 oz
EA(C;U)1P36-50/ EAC4X36-50	9	6	0 oz
EA(C;U)1P48-50/ EAC4X48-50	7	6	11 oz
ED1P48	20	6	11 oz
EAH1P42B	3	6	1 lb 11 oz
EAH1P42C	8	7	0 oz
EAH1P48B	9	6	5 oz
EAH1P48C	8	7	10 oz
EAH1P51C	4	6	15 oz
4HP15L42P/ 4HP14B42P/ BHP15L42P			
BCE5C42/ BCE5E42/ BCE5V42	17	6	1 lb 8 Oz
BCE5C48/ BCE5E48/ BCE5V48	12	6	1 lb 11 oz
BCE7E42/ BCE7S42	11	5	2 lb 2 oz
BCE7E48/ BCE7S48	9	6	1 lb 9 oz
EA(C;U)1P36-50/ EAC4X36-50	12	4	0 oz
EA(C;U)1P48-50/ EAC4X48-50	11	6	14 oz
EA(C;U)1P49-50/ EAC4X49-50	7	8	1 lb 4 oz
ED1P48	29	6	9 oz
ED1P50/60	5	7	1 lb 6 oz

Indoor Matchup	Subcool		Additional Charge
	Heat (±5°F)	Cool (±1°F)	
EAH1P42B	4	6	1 lb 2 oz
EAH1P42C	15	6	1 lb 3 oz
EAH1P48B	14	6	1 lb 4 oz
EAH1P48C	13	5	12 oz
EAH1P51C	10	6	1 lb 12 oz
4HP15L48P/ 4HP14B48P/ BHP15L48P			
BCE5C48/ BCE5E48/ BCE5V48	13	7	12 oz
BCE5C60/ BCE5E60/ BCE5V60	9	6	15 oz
BCE7E48/ BCE7S48	10	6	13 oz
EA(C;U)1P49-50/ EAC4X49-50	8	6	9 oz
EA(C;U)1P50/60C-50 EAC4X50/60C-50	14	5	0 oz
EA(C;U)1P60C-50/ EAC4X60C-50	8	6	9 oz
ED1P50/60	8	6	12 oz
ED1P60	16	6	2 lb 8 oz
EAH1P48C	17	4	0 oz
EAH1P51C	12	6	4 oz
EAH1P60D	10	6	9 oz
4HP15L60P/ 4HP14B60P/ BHP15L60P			
BCE5C48/ BCE5E48/ BCE5V48	13	6	1 lb
BCE5C60/ BCE5E60/ BCE5V60	13	6	1 lb 1 oz
BCE7E48/ BCE7S48	13	6	1 lb
BCE7E60/ BCE7S60	8	5	1 lb 8 oz
EA(C;U)1P49-50/ EAC4X49-50	10	5	14 oz
EA(C;U)1P60C-50/ EAC4X60C-50	8	6	1 lb 9 oz
ED1P50/60	11	5	1 lb 15 oz
ED1P60	17	5	2 lb 8 oz
EAH1P48C	18	3	0 oz
EAH1P51C	13	5	1 lb

The values in this table are most popular match-up pressures; indoor match-up, indoor air quantity, and indoor load will cause the pressures to vary.

**Amount of charge required in addition to charge shown on unit nameplate.

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