

SUPPLEMENTAL CHARGING INFORMATION

SINGLE SPEED HEAT PUMPS

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CHARGING THE UNIT IN COOLING MODE

NOTE: Quick connect heat pumps are shipped fully charged with R410A refrigerant and ready for installation and in normal circumstances no refrigerant charging is required. The instructions below are intended for brazed systems or for systems that need to be charged during service calls.

If the outdoor temperature is 65 degrees F or higher:

After completing the refrigerant line connections, leak checking the system, and evacuating the indoor section and all line connections (using proper methods), perform the following steps:

1. Determine the recommended charge addition (if applicable) for the system being installed. This information is in the unit's QRD (Quick Reference Data sheet).
2. Calculate the amount of additional refrigerant needed for the line set length of the actual installation. This information is on the first page of the unit's QRD (Quick Reference Data sheet).
3. Weigh in the additional charge amounts determined by steps 1 and 2 above.
4. Adjust the charge to match the superheat (for fixed orifice systems) or subcooling (for TXV systems). There are three different resources for doing this:
 - a.) The chargecalculator.com website. This will walk you through the charging process step by step.
 - b.) The charging tables on the inside of the outdoor unit's electrical box cover panel. These tables provide superheat targets for fixed orifice systems and subcooling targets for TXV systems. The system should be charged so that the measured superheat/subcooling are within 1 degree F of the target listed in the table.

For fixed orifice systems:

- If your measured superheat at the suction valve is **LESS THAN** the recommended superheat value in the table then **REMOVE** refrigerant.
- If your measured superheat at the suction valve is **GREATER THAN** the recommended superheat value in the table then **ADD** refrigerant.

For TXV systems:

- If your measured subcooling at the liquid valve is **LESS THAN** the recommended subcooling value in the table then **ADD** refrigerant.
 - If your measured subcooling at the liquid valve is **GREATER THAN** the recommended subcooling value in the table then **REMOVE** refrigerant.
- c.) The charging tables in the Supplemental Charging Information, can be found online in the literature library. The tables can also be accessed by scanning the QR code on the unit's electrical panel. The pressures listed in these tables are for reference only and are to be used in troubleshooting a system. **The system should be charged to match the superheat or subcooling targets as previously noted and not to match the system pressures.** Follow the same procedure described in 4b above.

If the outdoor temperature is between 35 degrees F and 65 degrees F:

After completing the refrigerant line connections, leak checking the system, and evacuating the indoor section and all line connections (using proper methods), perform the following steps:

1. Determine the recommended charge addition (if applicable) for the system being installed. This information is in the unit's QRD (Quick Reference Data sheet).
2. Calculate the amount of additional refrigerant needed for the line set length of the actual installation. This information is on the first page of the unit's QRD (Quick Reference Data sheet).
3. Weigh in the additional charge amounts determined by steps 1 and 2 above.
4. Block off the discharge of the outdoor fan. **NOTE:** One half of the unit should be covered corner to corner as shown in Figure 1.
5. **With the unit in cooling mode**, Adjust the charge to match the superheat (for fixed orifice systems) or subcooling (for TXV systems). There are two different resources for doing this:
 - a.) The chargecalculator.com website. This will walk you through the charging process step by step.
 - b.) The low ambient charging tables on the inside of the outdoor unit's electrical box cover panel. These tables provide superheat targets for fixed orifice systems and subcooling targets for TXV systems. The system should be charged so that the measured superheat/subcooling are within 1 degree F of the target listed in the table.

For fixed orifice systems:

- If your measured superheat at the suction valve is **LESS THAN** the recommended superheat value in the table then **REMOVE** refrigerant.
- If your measured superheat at the suction valve is **GREATER THAN** the recommended superheat value in the table then **ADD** refrigerant.

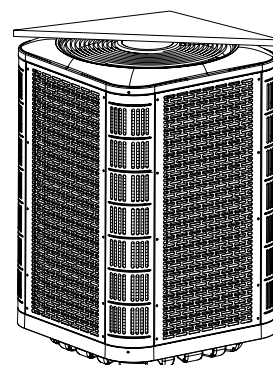
For TXV systems:

- If your measured subcooling at the liquid valve is **LESS THAN** the recommended subcooling value in the table then **ADD** refrigerant.
- If your measured subcooling at the liquid valve is **GREATER THAN** the recommended subcooling value in the table then **REMOVE** refrigerant.

If the outdoor temperature is below 35 degrees F:

After completing the refrigerant line connections, leak checking the system, and evacuating the indoor section and all line connections (using proper methods), perform the following steps:

1. Determine the recommended charge addition (if applicable) for the system being installed. This information is in the unit's QRD (Quick Reference Data sheet).
2. Calculate the amount of additional refrigerant needed for the line set length of the actual installation. This information is on the first page of the unit's QRD (Quick Reference Data sheet).
3. Weigh in the additional charge amounts determined by steps 1 and 2 above.



NOTE: One half of the unit should be covered corner to corner.

Figure 1. Blocked Off Outdoor Fan Discharge

***SH(1,2)BE4M1SP18K W/ FIXED ORIFICE INDOOR UNIT
(1.5 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SH	19.8	20.3	21.2	22.3	23.8	25.6	27.7	30.1	32.8	35.9	39.3
		SC	10.2	10.1	10.1	10.2	10.3	10.5	10.8	11.1	11.5	12.0	12.6
		LIQ. PRESS.	219	219	219	219	220	221	222	224	226	228	230
		SUC. PRESS.	124	124	124	125	126	127	129	132	134	137	141
	70	SH	16.0	16.4	17.1	18.2	19.6	21.3	23.3	25.7	28.3	31.3	34.6
		SC	10.2	10.2	10.2	10.4	10.6	10.8	11.2	11.6	12.1	12.6	13.2
		LIQ. PRESS.	237	237	237	238	239	240	241	243	245	248	250
		SUC. PRESS.	128	128	128	129	131	132	134	137	140	143	147
	75	SH	12.6	13.0	13.6	14.6	15.9	17.5	19.5	21.7	24.3	27.2	30.4
		SC	10.0	10.1	10.2	10.4	10.7	11.1	11.5	11.9	12.5	13.1	13.8
		LIQ. PRESS.	256	256	256	257	258	260	261	263	265	268	271
		SUC. PRESS.	131	132	132	133	135	137	139	142	145	149	153
80	SH	9.8	10.0	10.6	11.5	12.7	14.3	16.1	18.3	20.8	23.6	26.7	
	SC	9.8	9.9	10.1	10.4	10.7	11.1	11.6	12.1	12.7	13.4	14.2	
	LIQ. PRESS.	275	276	276	277	279	280	282	284	287	289	292	
	SUC. PRESS.	135	135	136	137	139	141	143	146	150	154	158	
85	SH	7.4	7.6	8.1	8.9	10.0	11.5	13.3	15.4	17.8	20.5	23.6	
	SC	9.4	9.6	9.8	10.2	10.6	11.0	11.6	12.2	12.9	13.6	14.4	
	LIQ. PRESS.	296	296	297	298	300	301	303	306	308	311	315	
	SUC. PRESS.	137	138	139	141	142	145	148	151	154	158	163	
90	SH	5.6	5.7	6.1	6.8	7.9	9.2	10.9	12.9	15.3	17.9	20.9	
	SC	8.8	9.1	9.4	9.8	10.3	10.8	11.4	12.1	12.9	13.7	14.6	
	LIQ. PRESS.	317	318	319	320	322	324	326	328	331	334	338	
	SUC. PRESS.	140	141	142	144	146	148	151	155	159	163	167	
95	SH	5.0	5.0	5.0	5.2	6.2	3.4	9.1	11.0	13.3	15.8	18.7	
	SC	8.1	8.5	8.9	9.3	9.9	6.0	11.2	11.9	12.7	13.6	14.6	
	LIQ. PRESS.	339	340	341	343	344	336	349	352	355	358	362	
	SUC. PRESS.	142	143	144	146	149	153	155	158	162	167	172	
100	SH	5.0	5.0	5.0	5.0	5.0	6.2	7.8	9.6	11.8	14.2	17.0	
	SC	7.3	7.7	8.2	8.7	9.3	10.0	10.8	11.6	12.5	13.4	14.4	
	LIQ. PRESS.	362	363	364	366	368	370	373	376	379	383	386	
	SUC. PRESS.	144	145	147	149	151	154	158	162	166	171	176	
105	SH	5.0	5.0	5.0	5.0	5.0	5.5	6.9	8.7	10.8	13.2	15.9	
	SC	6.4	6.8	7.4	8.0	8.7	9.4	10.2	11.1	12.0	13.1	14.1	
	LIQ. PRESS.	386	387	388	390	392	395	398	401	404	408	412	
	SUC. PRESS.	145	146	148	151	154	157	160	165	169	174	179	
110	SH	5.0	5.0	5.0	5.0	5.0	5.2	6.6	8.3	10.3	12.6	15.2	
	SC	5.3	5.8	6.4	7.1	7.8	8.6	9.5	10.5	11.5	12.6	13.7	
	LIQ. PRESS.	410	412	413	415	418	420	423	427	430	434	438	
	SUC. PRESS.	146	148	150	153	156	159	163	167	172	177	183	
115	SH	5.0	5.0	5.0	5.0	5.0	5.5	6.8	8.4	10.3	12.5	15.0	
	SC	4.1	4.7	5.3	6.1	6.9	7.8	8.7	9.7	10.8	12.0	13.2	
	LIQ. PRESS.	435	437	439	441	444	447	450	453	457	461	465	
	SUC. PRESS.	147	149	151	154	157	161	165	169	174	180	186	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition.
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)BE4M1SP18K W/ TXV INDOOR UNIT
(1.5 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SC	8.0	8.0	8.2	8.3	8.3	8.3	8.0	7.6	6.8	5.7	4.1
		LIQ. PRESS.	214	214	214	214	215	216	217	218	219	221	223
		SUC. PRESS.	128	129	131	133	137	141	147	153	160	168	176
	70	SC	8.2	8.3	8.4	8.5	8.6	8.6	8.4	8.0	7.3	6.3	4.9
		LIQ. PRESS.	232	232	232	233	233	234	235	236	238	239	241
		SUC. PRESS.	130	130	132	135	138	143	148	154	161	169	177
	75	SC	8.4	8.4	8.5	8.7	8.8	8.8	8.7	8.3	7.7	6.8	5.5
		LIQ. PRESS.	251	251	252	252	253	254	255	256	257	259	261
		SUC. PRESS.	131	132	134	136	140	144	149	155	162	170	179
	80	SC	8.5	8.5	8.6	8.7	8.9	8.9	8.9	8.6	8.1	7.2	6.0
		LIQ. PRESS.	272	272	272	273	274	274	275	277	278	280	281
		SUC. PRESS.	133	133	135	138	141	145	150	156	163	171	180
	85	SC	8.6	8.5	8.7	8.8	9.0	9.1	9.0	8.8	8.4	7.6	6.5
		LIQ. PRESS.	294	294	294	295	295	296	297	298	300	301	303
		SUC. PRESS.	134	135	136	139	142	146	152	157	164	172	180
	90	SC	8.7	8.6	8.7	8.9	9.1	9.2	9.2	9.1	8.7	8.0	7.1
		LIQ. PRESS.	317	317	317	318	318	319	320	322	323	325	326
		SUC. PRESS.	136	136	138	140	144	148	153	159	165	173	181
	95	SC	8.8	8.7	8.8	9.0	9.2	9.4	9.4	9.3	9.0	8.5	7.6
		LIQ. PRESS.	341	341	342	342	343	342	345	346	347	349	351
		SUC. PRESS.	137	138	139	142	145	151	154	160	166	174	182
100	SC	9.0	8.9	9.0	9.2	9.4	9.6	9.7	9.7	9.4	9.0	8.2	
	LIQ. PRESS.	366	367	367	367	368	369	370	371	373	374	376	
	SUC. PRESS.	139	139	141	143	146	150	155	161	167	175	183	
105	SC	9.3	9.2	9.2	9.4	9.7	9.9	10.0	10.1	9.9	9.6	8.9	
	LIQ. PRESS.	393	393	394	394	395	396	397	398	399	401	403	
	SUC. PRESS.	140	140	142	144	147	151	156	162	168	176	184	
110	SC	9.7	9.6	9.6	9.8	10.1	10.3	10.5	10.6	10.5	10.3	9.7	
	LIQ. PRESS.	421	421	421	422	423	424	425	426	427	429	431	
	SUC. PRESS.	141	142	143	145	148	152	157	163	169	177	185	
115	SC	10.3	10.2	10.2	10.4	10.6	10.9	11.2	11.3	11.3	11.1	10.6	
	LIQ. PRESS.	450	450	450	451	452	453	454	455	456	458	460	
	SUC. PRESS.	143	143	144	146	149	153	158	164	170	177	186	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition.
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)BE4M1SP18K HEATING MODE REFERENCE TABLE
(1.5 TON / SCROLL COMPRESSOR)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	40	40	40	41	41
		Disc. Pres.	233	268	285	289	292
		Disc. Temp.	167.4	193.6	204.8	206.3	207.9
	10	Suc. Press.	56	56	56	56	57
		Disc. Pres.	243	252	260	267	274
		Disc. Temp.	140.8	145.3	149.5	153.0	156.7
	20	Suc. Press.	70	70	70	70	71
		Disc. Pres.	256	263	271	278	286
		Disc. Temp.	133.2	136.4	140.2	143.1	146.5
	30	Suc. Press.	86	86	86	86	86
		Disc. Pres.	269	279	288	295	302
		Disc. Temp.	129.3	133.2	136.6	139.1	141.7
	40	Suc. Press.	103	102	103	103	103
		Disc. Pres.	288	301	311	318	325
		Disc. Temp.	128.9	133.6	136.8	139.0	141.3
	50	Suc. Press.	121	121	121	121	122
		Disc. Pres.	304	321	331	337	343
		Disc. Temp.	129.5	134.6	137.7	139.4	141.2
60	Suc. Press.	141	141	141	141	141	
	Disc. Pres.	331	352	364	368	373	
	Disc. Temp.	135.9	142.0	145.4	146.5	147.8	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)BE4M1SP24K W / FIXED ORIFICE INDOOR
(2.0 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SH	19.8	20.3	21.2	22.3	23.8	25.6	27.7	30.1	32.8	35.9	39.3
		SC	10.2	10.1	10.1	10.2	10.3	10.5	10.8	11.1	11.5	12.0	12.6
		LIQ. PRESS.	219	219	219	219	220	221	222	224	226	228	230
		SUC. PRESS.	124	124	124	125	126	127	129	132	134	137	141
	70	SH	16.0	16.4	17.1	18.2	19.6	21.3	23.3	25.7	28.3	31.3	34.6
		SC	10.2	10.2	10.2	10.4	10.6	10.8	11.2	11.6	12.1	12.6	13.2
		LIQ. PRESS.	237	237	237	238	239	240	241	243	245	248	250
		SUC. PRESS.	128	128	128	129	131	132	134	137	140	143	147
	75	SH	12.6	13.0	13.6	14.6	15.9	17.5	19.5	21.7	24.3	27.2	30.4
		SC	10.0	10.1	10.2	10.4	10.7	11.1	11.5	11.9	12.5	13.1	13.8
		LIQ. PRESS.	256	256	256	257	258	260	261	263	265	268	271
		SUC. PRESS.	131	132	132	133	135	137	139	142	145	149	153
	80	SH	9.8	10.0	10.6	11.5	12.7	14.3	16.1	18.3	20.8	23.6	26.7
		SC	9.8	9.9	10.1	10.4	10.7	11.1	11.6	12.1	12.7	13.4	14.2
		LIQ. PRESS.	275	276	276	277	279	280	282	284	287	289	292
		SUC. PRESS.	135	135	136	137	139	141	143	146	150	154	158
	85	SH	7.4	7.6	8.1	8.9	10.0	11.5	13.3	15.4	17.8	20.5	23.6
		SC	9.4	9.6	9.8	10.2	10.6	11.0	11.6	12.2	12.9	13.6	14.4
		LIQ. PRESS.	296	296	297	298	300	301	303	306	308	311	315
		SUC. PRESS.	137	138	139	141	142	145	148	151	154	158	163
	90	SH	5.6	5.7	6.1	6.8	7.9	9.2	10.9	12.9	15.3	17.9	20.9
		SC	8.8	9.1	9.4	9.8	10.3	10.8	11.4	12.1	12.9	13.7	14.6
		LIQ. PRESS.	317	318	319	320	322	324	326	328	331	334	338
		SUC. PRESS.	140	141	142	144	146	148	151	155	159	163	167
	95	SH	5.0	5.0	5.0	5.2	6.2	8.4	9.1	11.0	13.3	15.8	18.7
		SC	8.1	8.5	8.9	9.3	9.9	10.4	11.2	11.9	12.7	13.6	14.6
		LIQ. PRESS.	339	340	341	343	344	363	349	352	355	358	362
		SUC. PRESS.	142	143	144	146	149	149	155	158	162	167	172
100	SH	5.0	5.0	5.0	5.0	5.0	6.2	7.8	9.6	11.8	14.2	17.0	
	SC	7.3	7.7	8.2	8.7	9.3	10.0	10.8	11.6	12.5	13.4	14.4	
	LIQ. PRESS.	362	363	364	366	368	370	373	376	379	383	386	
	SUC. PRESS.	144	145	147	149	151	154	158	162	166	171	176	
105	SH	5.0	5.0	5.0	5.0	5.0	5.5	6.9	8.7	10.8	13.2	15.9	
	SC	6.4	6.8	7.4	8.0	8.7	9.4	10.2	11.1	12.0	13.1	14.1	
	LIQ. PRESS.	386	387	388	390	392	395	398	401	404	408	412	
	SUC. PRESS.	145	146	148	151	154	157	160	165	169	174	179	
110	SH	5.0	5.0	5.0	5.0	5.0	5.2	6.6	8.3	10.3	12.6	15.2	
	SC	5.3	5.8	6.4	7.1	7.8	8.6	9.5	10.5	11.5	12.6	13.7	
	LIQ. PRESS.	410	412	413	415	418	420	423	427	430	434	438	
	SUC. PRESS.	146	148	150	153	156	159	163	167	172	177	183	
115	SH	5.0	5.0	5.0	5.0	5.0	5.5	6.8	8.4	10.3	12.5	15.0	
	SC	4.1	4.7	5.3	6.1	6.9	7.8	8.7	9.7	10.8	12.0	13.2	
	LIQ. PRESS.	435	437	439	441	444	447	450	453	457	461	465	
	SUC. PRESS.	147	149	151	154	157	161	165	169	174	180	186	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP24K W/ TXV INDOOR UNIT
(2.0 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	60	SC	8.0	8.0	8.2	8.3	8.3	8.3	8.0	7.6	6.8	5.7	4.1
		LIQ. PRESS.	214	214	214	214	215	216	217	218	219	221	223
		SUC. PRESS.	128	129	131	133	137	141	147	153	160	168	176
	70	SC	8.2	8.3	8.4	8.5	8.6	8.6	8.4	8.0	7.3	6.3	4.9
		LIQ. PRESS.	232	232	232	233	233	234	235	236	238	239	241
		SUC. PRESS.	130	130	132	135	138	143	148	154	161	169	177
	75	SC	8.4	8.4	8.5	8.7	8.8	8.8	8.7	8.3	7.7	6.8	5.5
		LIQ. PRESS.	251	251	252	252	253	254	255	256	257	259	261
		SUC. PRESS.	131	132	134	136	140	144	149	155	162	170	179
	80	SC	8.5	8.5	8.6	8.7	8.9	8.9	8.9	8.6	8.1	7.2	6.0
		LIQ. PRESS.	272	272	272	273	274	274	275	277	278	280	281
		SUC. PRESS.	133	133	135	138	141	145	150	156	163	171	180
	85	SC	8.6	8.5	8.7	8.8	9.0	9.1	9.0	8.8	8.4	7.6	6.5
		LIQ. PRESS.	294	294	294	295	295	296	297	298	300	301	303
		SUC. PRESS.	134	135	136	139	142	146	152	157	164	172	180
	90	SC	8.7	8.6	8.7	8.9	9.1	9.2	9.2	9.1	8.7	8.0	7.1
		LIQ. PRESS.	317	317	317	318	318	319	320	322	323	325	326
		SUC. PRESS.	136	136	138	140	144	148	153	159	165	173	181
	95	SC	8.8	8.7	8.8	9.0	9.2	10.2	9.4	9.3	9.0	8.5	7.6
		LIQ. PRESS.	341	341	342	342	343	356	345	346	347	349	351
		SUC. PRESS.	137	138	139	142	145	144	154	160	166	174	182
100	SC	9.0	8.9	9.0	9.2	9.4	9.6	9.7	9.7	9.4	9.0	8.2	
	LIQ. PRESS.	366	367	367	367	368	369	370	371	373	374	376	
	SUC. PRESS.	139	139	141	143	146	150	155	161	167	175	183	
105	SC	9.3	9.2	9.2	9.4	9.7	9.9	10.0	10.1	9.9	9.6	8.9	
	LIQ. PRESS.	393	393	394	394	395	396	397	398	399	401	403	
	SUC. PRESS.	140	140	142	144	147	151	156	162	168	176	184	
110	SC	9.7	9.6	9.6	9.8	10.1	10.3	10.5	10.6	10.5	10.3	9.7	
	LIQ. PRESS.	421	421	421	422	423	424	425	426	427	429	431	
	SUC. PRESS.	141	142	143	145	148	152	157	163	169	177	185	
115	SC	10.3	10.2	10.2	10.4	10.6	10.9	11.2	11.3	11.3	11.1	10.6	
	LIQ. PRESS.	450	450	450	451	452	453	454	455	456	458	460	
	SUC. PRESS.	143	143	144	146	149	153	158	164	170	177	186	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP24K HEATING MODE REFERENCE TABLE
(2.0 TON / SCROLL COMPRESSOR)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	42	42	42	42	42
		Disc. Pres.	309	355	375	380	384
		Disc. Temp.	174.9	201.0	213.4	216.5	219.0
	10	Suc. Press.	53	53	53	54	54
		Disc. Pres.	293	312	325	331	337
		Disc. Temp.	150.3	158.7	164.3	166.9	169.7
	20	Suc. Press.	67	66	67	67	67
		Disc. Pres.	312	329	340	347	354
		Disc. Temp.	145.8	152.5	156.8	159.4	162.2
	30	Suc. Press.	81	81	80	81	82
		Disc. Pres.	316	337	354	363	386
		Disc. Temp.	138.8	146.3	152.3	154.9	162.6
	40	Suc. Press.	97	97	97	97	97
		Disc. Pres.	349	375	388	393	398
		Disc. Temp.	143.3	151.5	155.6	157.0	158.4
	50	Suc. Press.	115	115	115	115	115
		Disc. Pres.	397	430	444	448	452
		Disc. Temp.	151.7	161.3	165.3	166.3	167.3
60	Suc. Press.	136	136	136	137	137	
	Disc. Pres.	452	489	501	511	514	
	Disc. Temp.	161.6	171.0	174.1	176.6	177.2	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)E4M1RP24K W/ FIXED ORIFICE INDOOR UNIT
(2.0 TON / ROTARY COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SH	19.8	20.3	21.2	22.3	23.8	25.6	27.7	30.1	32.8	35.9	39.3
		SC	10.2	10.1	10.1	10.2	10.3	10.5	10.8	11.1	11.5	12.0	12.6
		LIQ. PRESS.	219	219	219	219	220	221	222	224	226	228	230
		SUC. PRESS.	124	124	124	125	126	127	129	132	134	137	141
	70	SH	16.0	16.4	17.1	18.2	19.6	21.3	23.3	25.7	28.3	31.3	34.6
		SC	10.2	10.2	10.2	10.4	10.6	10.8	11.2	11.6	12.1	12.6	13.2
		LIQ. PRESS.	237	237	237	238	239	240	241	243	245	248	250
		SUC. PRESS.	128	128	128	129	131	132	134	137	140	143	147
	75	SH	12.6	13.0	13.6	14.6	15.9	17.5	19.5	21.7	24.3	27.2	30.4
		SC	10.0	10.1	10.2	10.4	10.7	11.1	11.5	11.9	12.5	13.1	13.8
		LIQ. PRESS.	256	256	256	257	258	260	261	263	265	268	271
		SUC. PRESS.	131	132	132	133	135	137	139	142	145	149	153
	80	SH	9.8	10.0	10.6	11.5	12.7	14.3	16.1	18.3	20.8	23.6	26.7
		SC	9.8	9.9	10.1	10.4	10.7	11.1	11.6	12.1	12.7	13.4	14.2
		LIQ. PRESS.	275	276	276	277	279	280	282	284	287	289	292
		SUC. PRESS.	135	135	136	137	139	141	143	146	150	154	158
	85	SH	7.4	7.6	8.1	8.9	10.0	11.5	13.3	15.4	17.8	20.5	23.6
		SC	9.4	9.6	9.8	10.2	10.6	11.0	11.6	12.2	12.9	13.6	14.4
		LIQ. PRESS.	296	296	297	298	300	301	303	306	308	311	315
		SUC. PRESS.	137	138	139	141	142	145	148	151	154	158	163
90	SH	5.6	5.7	6.1	6.8	7.9	9.2	10.9	12.9	15.3	17.9	20.9	
	SC	8.8	9.1	9.4	9.8	10.3	10.8	11.4	12.1	12.9	13.7	14.6	
	LIQ. PRESS.	317	318	319	320	322	324	326	328	331	334	338	
	SUC. PRESS.	140	141	142	144	146	148	151	155	159	163	167	
95	SH	5.0	5.0	5.0	5.2	6.2	11.7	9.1	11.0	13.3	15.8	18.7	
	SC	8.1	8.5	8.9	9.3	9.9	6.7	11.2	11.9	12.7	13.6	14.6	
	LIQ. PRESS.	339	340	341	343	344	349	349	352	355	358	362	
	SUC. PRESS.	142	143	144	146	149	149	155	158	162	167	172	
100	SH	5.0	5.0	5.0	5.0	5.0	6.2	7.8	9.6	11.8	14.2	17.0	
	SC	7.3	7.7	8.2	8.7	9.3	10.0	10.8	11.6	12.5	13.4	14.4	
	LIQ. PRESS.	362	363	364	366	368	370	373	376	379	383	386	
	SUC. PRESS.	144	145	147	149	151	154	158	162	166	171	176	
105	SH	5.0	5.0	5.0	5.0	5.0	5.5	6.9	8.7	10.8	13.2	15.9	
	SC	6.4	6.8	7.4	8.0	8.7	9.4	10.2	11.1	12.0	13.1	14.1	
	LIQ. PRESS.	386	387	388	390	392	395	398	401	404	408	412	
	SUC. PRESS.	145	146	148	151	154	157	160	165	169	174	179	
110	SH	5.0	5.0	5.0	5.0	5.0	5.2	6.6	8.3	10.3	12.6	15.2	
	SC	5.3	5.8	6.4	7.1	7.8	8.6	9.5	10.5	11.5	12.6	13.7	
	LIQ. PRESS.	410	412	413	415	418	420	423	427	430	434	438	
	SUC. PRESS.	146	148	150	153	156	159	163	167	172	177	183	
115	SH	5.0	5.0	5.0	5.0	5.0	5.5	6.8	8.4	10.3	12.5	15.0	
	SC	4.1	4.7	5.3	6.1	6.9	7.8	8.7	9.7	10.8	12.0	13.2	
	LIQ. PRESS.	435	437	439	441	444	447	450	453	457	461	465	
	SUC. PRESS.	147	149	151	154	157	161	165	169	174	180	186	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1RP24K W/ TXV INDOOR UNIT
(2.0 TON / ROTARY COMPRESSOR / COOLING MODE)**

14 SEER			INDOOR WET-BULB TEMPERATURE (°F)										
			57	59	61	63	65	67	69	71	73	75	77
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SC	8.0	8.0	8.2	8.3	8.3	8.3	8.0	7.6	6.8	5.7	4.1
		LIQ. PRESS.	214	214	214	214	215	216	217	218	219	221	223
		SUC. PRESS.	128	129	131	133	137	141	147	153	160	168	176
	70	SC	8.2	8.3	8.4	8.5	8.6	8.6	8.4	8.0	7.3	6.3	4.9
		LIQ. PRESS.	232	232	232	233	233	234	235	236	238	239	241
		SUC. PRESS.	130	130	132	135	138	143	148	154	161	169	177
	75	SC	8.4	8.4	8.5	8.7	8.8	8.8	8.7	8.3	7.7	6.8	5.5
		LIQ. PRESS.	251	251	252	252	253	254	255	256	257	259	261
		SUC. PRESS.	131	132	134	136	140	144	149	155	162	170	179
	80	SC	8.5	8.5	8.6	8.7	8.9	8.9	8.9	8.6	8.1	7.2	6.0
		LIQ. PRESS.	272	272	272	273	274	274	275	277	278	280	281
		SUC. PRESS.	133	133	135	138	141	145	150	156	163	171	180
	85	SC	8.6	8.5	8.7	8.8	9.0	9.1	9.0	8.8	8.4	7.6	6.5
		LIQ. PRESS.	294	294	294	295	295	296	297	298	300	301	303
		SUC. PRESS.	134	135	136	139	142	146	152	157	164	172	180
	90	SC	8.7	8.6	8.7	8.9	9.1	9.2	9.2	9.1	8.7	8.0	7.1
		LIQ. PRESS.	317	317	317	318	318	319	320	322	323	325	326
		SUC. PRESS.	136	136	138	140	144	148	153	159	165	173	181
	95	SC	8.8	8.7	8.8	9.0	9.2	12.4	9.4	9.3	9.0	8.5	7.6
		LIQ. PRESS.	341	341	342	342	343	365	345	346	347	349	351
		SUC. PRESS.	137	138	139	142	145	147	154	160	166	174	182
	100	SC	9.0	8.9	9.0	9.2	9.4	9.6	9.7	9.7	9.4	9.0	8.2
		LIQ. PRESS.	366	367	367	367	368	369	370	371	373	374	376
		SUC. PRESS.	139	139	141	143	146	150	155	161	167	175	183
105	SC	9.3	9.2	9.2	9.4	9.7	9.9	10.0	10.1	9.9	9.6	8.9	
	LIQ. PRESS.	393	393	394	394	395	396	397	398	399	401	403	
	SUC. PRESS.	140	140	142	144	147	151	156	162	168	176	184	
110	SC	9.7	9.6	9.6	9.8	10.1	10.3	10.5	10.6	10.5	10.3	9.7	
	LIQ. PRESS.	421	421	421	422	423	424	425	426	427	429	431	
	SUC. PRESS.	141	142	143	145	148	152	157	163	169	177	185	
115	SC	10.3	10.2	10.2	10.4	10.6	10.9	11.2	11.3	11.3	11.1	10.6	
	LIQ. PRESS.	450	450	450	451	452	453	454	455	456	458	460	
	SUC. PRESS.	143	143	144	146	149	153	158	164	170	177	186	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1RP24K HEATING MODE REFERENCE TABLE
(2.0 TON / ROTARY COMPRESSOR)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	36	35	34	33	33
		Disc. Pres.	247	255	261	266	268
		Disc. Temp.	142.0	154.5	165.4	173.4	176.5
	10	Suc. Press.	52	52	52	52	53
		Disc. Pres.	252	258	265	272	279
		Disc. Temp.	121.5	127.7	133.3	138.6	143.2
	20	Suc. Press.	65	65	65	65	66
		Disc. Pres.	263	271	278	285	293
		Disc. Temp.	121.8	126.0	130.1	134.1	138.0
	30	Suc. Press.	79	79	79	80	80
		Disc. Pres.	272	281	291	303	311
		Disc. Temp.	120.7	125.0	129.5	134.7	137.8
	40	Suc. Press.	94	95	95	95	95
		Disc. Pres.	293	300	308	316	324
		Disc. Temp.	124.6	127.9	131.4	134.5	137.2
	50	Suc. Press.	110	110	110	110	110
		Disc. Pres.	319	325	333	341	349
		Disc. Temp.	136.5	139.7	142.7	145.4	147.7
60	Suc. Press.	127	127	127	127	127	
	Disc. Pres.	344	353	362	372	381	
	Disc. Temp.	145.0	147.5	150.1	152.6	155.1	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)E4M1SP30K W/ FIXED ORIFICE INDOOR UNIT
(2.5 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SH	18.6	19.1	19.9	21.0	22.4	24.1	26.0	28.2	30.7	33.4	36.5
		SC	9.1	9.0	9.1	9.2	9.5	9.9	10.5	11.1	11.9	12.8	13.9
		LIQ. PRESS.	225	224	224	225	225	226	227	229	230	233	235
		SUC. PRESS.	123	123	123	124	125	127	129	131	134	137	141
	70	SH	15.6	16.1	16.9	17.9	19.2	20.8	22.7	24.9	27.3	30.0	33.0
		SC	8.7	8.7	8.8	9.0	9.3	9.8	10.3	11.0	11.9	12.8	13.9
		LIQ. PRESS.	243	243	243	243	244	245	246	248	250	252	254
		SUC. PRESS.	126	126	127	128	129	131	133	135	138	142	146
	75	SH	13.0	13.4	14.1	15.1	16.4	18.0	19.8	21.9	24.3	27.0	29.9
		SC	8.3	8.3	8.4	8.6	9.0	9.5	10.1	10.9	11.7	12.7	13.8
		LIQ. PRESS.	263	262	263	263	264	265	266	268	270	272	275
		SUC. PRESS.	129	129	130	131	133	134	137	139	143	146	150
80	SH	10.6	11.0	11.7	12.6	13.9	15.4	17.2	19.2	21.6	24.2	27.1	
	SC	7.8	7.8	8.0	8.3	8.7	9.2	9.9	10.6	11.6	12.6	13.7	
	LIQ. PRESS.	283	283	283	284	285	286	287	289	291	294	296	
	SUC. PRESS.	132	132	133	134	136	138	141	143	147	150	154	
85	SH	8.6	8.9	9.6	10.5	11.7	13.1	14.9	16.9	19.2	21.7	24.6	
	SC	7.2	7.3	7.5	7.8	8.3	8.8	9.5	10.4	11.3	12.4	13.6	
	LIQ. PRESS.	304	305	305	306	307	308	309	311	313	316	318	
	SUC. PRESS.	135	135	136	138	139	141	144	147	150	154	158	
90	SH	6.9	7.2	7.8	8.6	9.8	11.2	12.9	14.8	17.1	19.6	22.4	
	SC	6.6	6.7	7.0	7.3	7.8	8.4	9.2	10.0	11.0	12.1	13.4	
	LIQ. PRESS.	327	327	327	328	329	331	332	334	336	339	342	
	SUC. PRESS.	137	138	139	141	142	145	147	151	154	158	162	
95	SH	5.5	5.8	6.3	7.1	8.2	6.6	11.2	13.1	15.3	17.8	20.5	
	SC	5.9	6.1	6.4	6.8	7.3	8.5	8.7	9.6	10.7	11.8	13.1	
	LIQ. PRESS.	350	350	351	352	353	354	356	358	360	363	366	
	SUC. PRESS.	140	141	142	143	145	145	151	154	157	162	166	
100	SH	5.0	5.0	5.1	5.9	6.9	8.2	9.8	11.7	13.9	16.3	19.0	
	SC	5.2	5.4	5.7	6.2	6.7	7.4	8.2	9.2	10.2	11.4	12.7	
	LIQ. PRESS.	374	375	375	376	378	379	381	383	386	388	391	
	SUC. PRESS.	142	143	144	146	148	151	154	157	161	165	170	
105	SH	5.0	5.0	5.0	5.0	6.0	7.3	8.8	10.6	12.7	15.1	17.8	
	SC	4.4	4.7	5.0	5.5	6.1	6.8	7.7	8.7	9.8	11.0	12.4	
	LIQ. PRESS.	400	400	401	402	403	405	407	409	412	414	417	
	SUC. PRESS.	144	145	147	148	151	153	156	160	164	168	173	
110	SH	5.0	5.0	5.0	5.0	5.4	6.6	8.1	9.9	11.9	14.2	16.9	
	SC	3.6	3.9	4.2	4.8	5.4	6.2	7.1	8.1	9.2	10.5	11.9	
	LIQ. PRESS.	426	426	427	428	430	432	434	436	438	441	445	
	SUC. PRESS.	146	147	149	151	153	156	159	163	167	171	176	
115	SH	5.0	5.0	5.0	5.0	5.1	6.2	7.7	9.4	11.4	13.7	16.3	
	SC	2.7	3.0	3.4	4.0	4.7	5.5	6.4	7.5	8.7	10.0	11.4	
	LIQ. PRESS.	453	454	455	456	457	459	461	464	466	469	473	
	SUC. PRESS.	148	149	151	153	155	158	162	165	170	174	179	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP30K W/ TXV INDOOR UNIT
(2.5 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.4	11.7	10.2	7.7	4.2
		LIQ. PRESS.	227	227	227	227	228	230	232	234	237	241	245
		SUC. PRESS.	121	122	124	127	130	134	139	145	151	158	166
	70	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.5	11.8	10.3	8.0	4.5
		LIQ. PRESS.	246	245	246	246	247	249	251	253	256	260	264
		SUC. PRESS.	123	124	126	128	132	136	141	146	152	159	167
	75	SC	11.4	11.3	11.6	12.0	12.4	12.7	12.6	12.0	10.6	8.3	4.9
		LIQ. PRESS.	266	266	266	266	267	269	271	274	277	280	284
		SUC. PRESS.	125	126	127	130	133	137	142	147	154	161	168
	80	SC	11.6	11.5	11.7	12.2	12.6	12.9	12.9	12.3	11.0	8.8	5.5
		LIQ. PRESS.	287	287	287	288	289	291	293	295	298	302	306
		SUC. PRESS.	126	127	129	132	135	139	143	149	155	162	170
	85	SC	11.9	11.7	11.9	12.4	12.9	13.2	13.2	12.7	11.4	9.3	6.2
		LIQ. PRESS.	310	310	310	311	312	314	316	318	321	325	329
		SUC. PRESS.	128	129	131	133	136	140	145	150	156	163	171
	90	SC	12.1	11.9	12.1	12.6	13.1	13.5	13.5	13.1	11.9	9.9	6.9
		LIQ. PRESS.	334	334	334	335	336	338	340	343	346	349	353
		SUC. PRESS.	130	131	132	135	138	142	146	151	158	164	172
	95	SC	12.3	12.1	12.4	12.8	13.4	14.1	13.9	13.5	12.5	10.6	7.6
		LIQ. PRESS.	360	359	360	361	362	354	366	368	371	375	379
		SUC. PRESS.	131	132	134	136	139	144	147	153	159	165	173
	100	SC	12.5	12.3	12.5	13.0	13.6	14.1	14.2	13.9	13.0	11.2	8.4
		LIQ. PRESS.	386	386	387	387	389	390	393	395	398	402	406
		SUC. PRESS.	133	134	135	137	140	144	149	154	160	166	174
105	SC	12.6	12.4	12.6	13.2	13.8	14.3	14.5	14.3	13.5	11.8	9.1	
	LIQ. PRESS.	415	414	415	416	417	419	421	424	427	430	435	
	SUC. PRESS.	134	135	136	139	142	145	150	155	161	167	175	
110	SC	12.6	12.4	12.7	13.2	13.9	14.5	14.8	14.7	13.9	12.4	9.8	
	LIQ. PRESS.	444	444	444	445	446	448	450	453	456	460	464	
	SUC. PRESS.	135	136	138	140	143	146	151	156	162	168	176	
115	SC	12.5	12.3	12.6	13.2	13.9	14.5	14.9	14.9	14.3	12.8	10.4	
	LIQ. PRESS.	475	475	475	476	477	479	481	484	487	491	495	
	SUC. PRESS.	137	137	139	141	144	147	152	157	163	169	176	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP30K HEATING MODE REFERENCE TABLE
(2.5 TON / SCROLL COMPRESSOR)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	35	34	33	31	31
		Disc. Pres.	285	294	301	306	310
		Disc. Temp.	231.3	249.1	267.1	285.3	294.0
	10	Suc. Press.	53	53	53	53	52
		Disc. Pres.	265	272	280	287	293
		Disc. Temp.	156.7	161.5	166.4	171.5	176.8
	20	Suc. Press.	66	66	66	66	67
		Disc. Pres.	272	280	289	299	310
		Disc. Temp.	145.0	148.7	152.6	156.6	161.6
	30	Suc. Press.	80	80	80	80	80
		Disc. Pres.	286	294	302	311	319
		Disc. Temp.	140.8	144.0	147.1	150.1	153.1
	40	Suc. Press.	96	96	96	96	96
		Disc. Pres.	312	320	329	338	346
		Disc. Temp.	142.1	144.9	147.8	150.8	153.6
	50	Suc. Press.	113	114	114	114	115
		Disc. Pres.	340	349	359	370	379
		Disc. Temp.	149.3	150.6	152.0	153.6	156.3
60	Suc. Press.	128	128	130	133	134	
	Disc. Pres.	354	363	375	387	399	
	Disc. Temp.	155.9	158.6	160.2	161.2	162.2	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)E4M1RP30K W/ FIXED ORIFICE INDOOR UNIT
(2.5 TON / ROTARY COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SH	18.6	19.1	19.9	21.0	22.4	24.1	26.0	28.2	30.7	33.4	36.5
		SC	9.1	9.0	9.1	9.2	9.5	9.9	10.5	11.1	11.9	12.8	13.9
		LIQ. PRESS.	225	224	224	225	225	226	227	229	230	233	235
		SUC. PRESS.	123	123	123	124	125	127	129	131	134	137	141
	70	SH	15.6	16.1	16.9	17.9	19.2	20.8	22.7	24.9	27.3	30.0	33.0
		SC	8.7	8.7	8.8	9.0	9.3	9.8	10.3	11.0	11.9	12.8	13.9
		LIQ. PRESS.	243	243	243	243	244	245	246	248	250	252	254
		SUC. PRESS.	126	126	127	128	129	131	133	135	138	142	146
	75	SH	13.0	13.4	14.1	15.1	16.4	18.0	19.8	21.9	24.3	27.0	29.9
		SC	8.3	8.3	8.4	8.6	9.0	9.5	10.1	10.9	11.7	12.7	13.8
		LIQ. PRESS.	263	262	263	263	264	265	266	268	270	272	275
		SUC. PRESS.	129	129	130	131	133	134	137	139	143	146	150
80	SH	10.6	11.0	11.7	12.6	13.9	15.4	17.2	19.2	21.6	24.2	27.1	
	SC	7.8	7.8	8.0	8.3	8.7	9.2	9.9	10.6	11.6	12.6	13.7	
	LIQ. PRESS.	283	283	283	284	285	286	287	289	291	294	296	
	SUC. PRESS.	132	132	133	134	136	138	141	143	147	150	154	
85	SH	8.6	8.9	9.6	10.5	11.7	13.1	14.9	16.9	19.2	21.7	24.6	
	SC	7.2	7.3	7.5	7.8	8.3	8.8	9.5	10.4	11.3	12.4	13.6	
	LIQ. PRESS.	304	305	305	306	307	308	309	311	313	316	318	
	SUC. PRESS.	135	135	136	138	139	141	144	147	150	154	158	
90	SH	6.9	7.2	7.8	8.6	9.8	11.2	12.9	14.8	17.1	19.6	22.4	
	SC	6.6	6.7	7.0	7.3	7.8	8.4	9.2	10.0	11.0	12.1	13.4	
	LIQ. PRESS.	327	327	327	328	329	331	332	334	336	339	342	
	SUC. PRESS.	137	138	139	141	142	145	147	151	154	158	162	
95	SH	5.5	5.8	6.3	7.1	8.2	8.8	11.2	13.1	15.3	17.8	20.5	
	SC	5.9	6.1	6.4	6.8	7.3	11.8	8.7	9.6	10.7	11.8	13.1	
	LIQ. PRESS.	350	350	351	352	353	365	356	358	360	363	366	
	SUC. PRESS.	140	141	142	143	145	144	151	154	157	162	166	
100	SH	5.0	5.0	5.1	5.9	6.9	8.2	9.8	11.7	13.9	16.3	19.0	
	SC	5.2	5.4	5.7	6.2	6.7	7.4	8.2	9.2	10.2	11.4	12.7	
	LIQ. PRESS.	374	375	375	376	378	379	381	383	386	388	391	
	SUC. PRESS.	142	143	144	146	148	151	154	157	161	165	170	
105	SH	5.0	5.0	5.0	5.0	6.0	7.3	8.8	10.6	12.7	15.1	17.8	
	SC	4.4	4.7	5.0	5.5	6.1	6.8	7.7	8.7	9.8	11.0	12.4	
	LIQ. PRESS.	400	400	401	402	403	405	407	409	412	414	417	
	SUC. PRESS.	144	145	147	148	151	153	156	160	164	168	173	
110	SH	5.0	5.0	5.0	5.0	5.4	6.6	8.1	9.9	11.9	14.2	16.9	
	SC	3.6	3.9	4.2	4.8	5.4	6.2	7.1	8.1	9.2	10.5	11.9	
	LIQ. PRESS.	426	426	427	428	430	432	434	436	438	441	445	
	SUC. PRESS.	146	147	149	151	153	156	159	163	167	171	176	
115	SH	5.0	5.0	5.0	5.0	5.1	6.2	7.7	9.4	11.4	13.7	16.3	
	SC	2.7	3.0	3.4	4.0	4.7	5.5	6.4	7.5	8.7	10.0	11.4	
	LIQ. PRESS.	453	454	455	456	457	459	461	464	466	469	473	
	SUC. PRESS.	148	149	151	153	155	158	162	165	170	174	179	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1RP30K W/ TXV INDOOR UNIT
(2.5 TON / ROTARY COMPRESSOR / COOLING MODE)**

14 SEER			INDOOR WET-BULB TEMPERATURE (°F)										
			57	59	61	63	65	67	69	71	73	75	77
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.4	11.7	10.2	7.7	4.2
		LIQ. PRESS.	227	227	227	227	228	230	232	234	237	241	245
		SUC. PRESS.	121	122	124	127	130	134	139	145	151	158	166
	70	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.5	11.8	10.3	8.0	4.5
		LIQ. PRESS.	246	245	246	246	247	249	251	253	256	260	264
		SUC. PRESS.	123	124	126	128	132	136	141	146	152	159	167
	75	SC	11.4	11.3	11.6	12.0	12.4	12.7	12.6	12.0	10.6	8.3	4.9
		LIQ. PRESS.	266	266	266	266	267	269	271	274	277	280	284
		SUC. PRESS.	125	126	127	130	133	137	142	147	154	161	168
	80	SC	11.6	11.5	11.7	12.2	12.6	12.9	12.9	12.3	11.0	8.8	5.5
		LIQ. PRESS.	287	287	287	288	289	291	293	295	298	302	306
		SUC. PRESS.	126	127	129	132	135	139	143	149	155	162	170
	85	SC	11.9	11.7	11.9	12.4	12.9	13.2	13.2	12.7	11.4	9.3	6.2
		LIQ. PRESS.	310	310	310	311	312	314	316	318	321	325	329
		SUC. PRESS.	128	129	131	133	136	140	145	150	156	163	171
	90	SC	12.1	11.9	12.1	12.6	13.1	13.5	13.5	13.1	11.9	9.9	6.9
		LIQ. PRESS.	334	334	334	335	336	338	340	343	346	349	353
		SUC. PRESS.	130	131	132	135	138	142	146	151	158	164	172
	95	SC	12.3	12.1	12.4	12.8	13.4	5.8	13.9	13.5	12.5	10.6	7.6
		LIQ. PRESS.	360	359	360	361	362	347	366	368	371	375	379
		SUC. PRESS.	131	132	134	136	139	142	147	153	159	165	173
100	SC	12.5	12.3	12.5	13.0	13.6	14.1	14.2	13.9	13.0	11.2	8.4	
	LIQ. PRESS.	386	386	387	387	389	390	393	395	398	402	406	
	SUC. PRESS.	133	134	135	137	140	144	149	154	160	166	174	
105	SC	12.6	12.4	12.6	13.2	13.8	14.3	14.5	14.3	13.5	11.8	9.1	
	LIQ. PRESS.	415	414	415	416	417	419	421	424	427	430	435	
	SUC. PRESS.	134	135	136	139	142	145	150	155	161	167	175	
110	SC	12.6	12.4	12.7	13.2	13.9	14.5	14.8	14.7	13.9	12.4	9.8	
	LIQ. PRESS.	444	444	444	445	446	448	450	453	456	460	464	
	SUC. PRESS.	135	136	138	140	143	146	151	156	162	168	176	
115	SC	12.5	12.3	12.6	13.2	13.9	14.5	14.9	14.9	14.3	12.8	10.4	
	LIQ. PRESS.	475	475	475	476	477	479	481	484	487	491	495	
	SUC. PRESS.	137	137	139	141	144	147	152	157	163	169	176	

SC = Subcooling at the liquid valve
 -Subcooling tolerance is ± 1°F
 -Refrigerant pressures are reference values for troubleshooting purposes only
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1RP30K HEATING MODE REFERENCE TABLE
(2.5 TON / ROTARY COMPRESSOR)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	42	42	42	42	42
		Disc. Pres.	247	270	286	291	295
		Disc. Temp.	133.0	144.1	152.2	154.4	156.8
	10	Suc. Press.	54	54	53	54	54
		Disc. Pres.	256	266	276	285	294
		Disc. Temp.	127.7	132.6	137.3	141.4	145.6
	20	Suc. Press.	67	66	66	66	66
		Disc. Pres.	265	275	285	292	300
		Disc. Temp.	124.8	129.2	133.5	136.9	140.4
	30	Suc. Press.	81	80	80	80	80
		Disc. Pres.	279	292	303	311	319
		Disc. Temp.	125.1	131.1	135.7	139.1	142.5
	40	Suc. Press.	96	96	96	95	95
		Disc. Pres.	305	322	333	340	348
		Disc. Temp.	131.2	138.2	142.6	145.4	148.1
	50	Suc. Press.	113	112	112	112	113
		Disc. Pres.	339	359	371	377	384
		Disc. Temp.	140.1	147.0	150.7	152.7	154.6
60	Suc. Press.	133	132	132	133	133	
	Disc. Pres.	379	400	411	416	421	
	Disc. Temp.	148.4	154.4	157.2	158.4	159.6	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)E4M1SP36(C,D,K) W/ FIXED ORIFICE INDOOR UNIT
(3.0 TON / SCROLL COMPRESSOR / COOLING MODE / SINGLE & THREE PHASE MODELS)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SH	18.6	19.1	19.9	21.0	22.4	24.1	26.0	28.2	30.7	33.4	36.5
		SC	9.1	9.0	9.1	9.2	9.5	9.9	10.5	11.1	11.9	12.8	13.9
		LIQ. PRESS.	225	224	224	225	225	226	227	229	230	233	235
		SUC. PRESS.	123	123	123	124	125	127	129	131	134	137	141
	70	SH	15.6	16.1	16.9	17.9	19.2	20.8	22.7	24.9	27.3	30.0	33.0
		SC	8.7	8.7	8.8	9.0	9.3	9.8	10.3	11.0	11.9	12.8	13.9
		LIQ. PRESS.	243	243	243	243	244	245	246	248	250	252	254
		SUC. PRESS.	126	126	127	128	129	131	133	135	138	142	146
	75	SH	13.0	13.4	14.1	15.1	16.4	18.0	19.8	21.9	24.3	27.0	29.9
		SC	8.3	8.3	8.4	8.6	9.0	9.5	10.1	10.9	11.7	12.7	13.8
		LIQ. PRESS.	263	262	263	263	264	265	266	268	270	272	275
		SUC. PRESS.	129	129	130	131	133	134	137	139	143	146	150
	80	SH	10.6	11.0	11.7	12.6	13.9	15.4	17.2	19.2	21.6	24.2	27.1
		SC	7.8	7.8	8.0	8.3	8.7	9.2	9.9	10.6	11.6	12.6	13.7
		LIQ. PRESS.	283	283	283	284	285	286	287	289	291	294	296
		SUC. PRESS.	132	132	133	134	136	138	141	143	147	150	154
	85	SH	8.6	8.9	9.6	10.5	11.7	13.1	14.9	16.9	19.2	21.7	24.6
		SC	7.2	7.3	7.5	7.8	8.3	8.8	9.5	10.4	11.3	12.4	13.6
		LIQ. PRESS.	304	305	305	306	307	308	309	311	313	316	318
		SUC. PRESS.	135	135	136	138	139	141	144	147	150	154	158
90	SH	6.9	7.2	7.8	8.6	9.8	11.2	12.9	14.8	17.1	19.6	22.4	
	SC	6.6	6.7	7.0	7.3	7.8	8.4	9.2	10.0	11.0	12.1	13.4	
	LIQ. PRESS.	327	327	327	328	329	331	332	334	336	339	342	
	SUC. PRESS.	137	138	139	141	142	145	147	151	154	158	162	
95	SH	5.5	5.8	6.3	7.1	8.2	6.4	11.2	13.1	15.3	17.8	20.5	
	SC	5.9	6.1	6.4	6.8	7.3	11.0	8.7	9.6	10.7	11.8	13.1	
	LIQ. PRESS.	350	350	351	352	353	361	356	358	360	363	366	
	SUC. PRESS.	140	141	142	143	145	147	151	154	157	162	166	
100	SH	5.0	5.0	5.1	5.9	6.9	8.2	9.8	11.7	13.9	16.3	19.0	
	SC	5.2	5.4	5.7	6.2	6.7	7.4	8.2	9.2	10.2	11.4	12.7	
	LIQ. PRESS.	374	375	375	376	378	379	381	383	386	388	391	
	SUC. PRESS.	142	143	144	146	148	151	154	157	161	165	170	
105	SH	5.0	5.0	5.0	5.0	6.0	7.3	8.8	10.6	12.7	15.1	17.8	
	SC	4.4	4.7	5.0	5.5	6.1	6.8	7.7	8.7	9.8	11.0	12.4	
	LIQ. PRESS.	400	400	401	402	403	405	407	409	412	414	417	
	SUC. PRESS.	144	145	147	148	151	153	156	160	164	168	173	
110	SH	5.0	5.0	5.0	5.0	5.4	6.6	8.1	9.9	11.9	14.2	16.9	
	SC	3.6	3.9	4.2	4.8	5.4	6.2	7.1	8.1	9.2	10.5	11.9	
	LIQ. PRESS.	426	426	427	428	430	432	434	436	438	441	445	
	SUC. PRESS.	146	147	149	151	153	156	159	163	167	171	176	
115	SH	5.0	5.0	5.0	5.0	5.1	6.2	7.7	9.4	11.4	13.7	16.3	
	SC	2.7	3.0	3.4	4.0	4.7	5.5	6.4	7.5	8.7	10.0	11.4	
	LIQ. PRESS.	453	454	455	456	457	459	461	464	466	469	473	
	SUC. PRESS.	148	149	151	153	155	158	162	165	170	174	179	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve

-Subcooling tolerance is ± 1°F

-Superheat tolerance is ± 1°F

-All temperature measurements are in degrees Fahrenheit.

-All pressure measurements are in PSIG.

-The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.

-Boxed data point is the performance rated condition

-Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP36(C,D,K) W/ TXV INDOOR UNIT
(3.0 TON / SCROLL COMPRESSOR / COOLING MODE / SINGLE & THREE PHASE MODELS)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.4	11.7	10.2	7.7	4.2
		LIQ. PRESS.	227	227	227	227	228	230	232	234	237	241	245
		SUC. PRESS.	121	122	124	127	130	134	139	145	151	158	166
	70	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.5	11.8	10.3	8.0	4.5
		LIQ. PRESS.	246	245	246	246	247	249	251	253	256	260	264
		SUC. PRESS.	123	124	126	128	132	136	141	146	152	159	167
	75	SC	11.4	11.3	11.6	12.0	12.4	12.7	12.6	12.0	10.6	8.3	4.9
		LIQ. PRESS.	266	266	266	266	267	269	271	274	277	280	284
		SUC. PRESS.	125	126	127	130	133	137	142	147	154	161	168
	80	SC	11.6	11.5	11.7	12.2	12.6	12.9	12.9	12.3	11.0	8.8	5.5
		LIQ. PRESS.	287	287	287	288	289	291	293	295	298	302	306
		SUC. PRESS.	126	127	129	132	135	139	143	149	155	162	170
	85	SC	11.9	11.7	11.9	12.4	12.9	13.2	13.2	12.7	11.4	9.3	6.2
		LIQ. PRESS.	310	310	310	311	312	314	316	318	321	325	329
		SUC. PRESS.	128	129	131	133	136	140	145	150	156	163	171
	90	SC	12.1	11.9	12.1	12.6	13.1	13.5	13.5	13.1	11.9	9.9	6.9
		LIQ. PRESS.	334	334	334	335	336	338	340	343	346	349	353
		SUC. PRESS.	130	131	132	135	138	142	146	151	158	164	172
	95	SC	12.3	12.1	12.4	12.8	13.4	12.6	13.9	13.5	12.5	10.6	7.6
		LIQ. PRESS.	360	359	360	361	362	373	366	368	371	375	379
		SUC. PRESS.	131	132	134	136	139	147	147	153	159	165	173
	100	SC	12.5	12.3	12.5	13.0	13.6	14.1	14.2	13.9	13.0	11.2	8.4
		LIQ. PRESS.	386	386	387	387	389	390	393	395	398	402	406
		SUC. PRESS.	133	134	135	137	140	144	149	154	160	166	174
105	SC	12.6	12.4	12.6	13.2	13.8	14.3	14.5	14.3	13.5	11.8	9.1	
	LIQ. PRESS.	415	414	415	416	417	419	421	424	427	430	435	
	SUC. PRESS.	134	135	136	139	142	145	150	155	161	167	175	
110	SC	12.6	12.4	12.7	13.2	13.9	14.5	14.8	14.7	13.9	12.4	9.8	
	LIQ. PRESS.	444	444	444	445	446	448	450	453	456	460	464	
	SUC. PRESS.	135	136	138	140	143	146	151	156	162	168	176	
115	SC	12.5	12.3	12.6	13.2	13.9	14.5	14.9	14.9	14.3	12.8	10.4	
	LIQ. PRESS.	475	475	475	476	477	479	481	484	487	491	495	
	SUC. PRESS.	137	137	139	141	144	147	152	157	163	169	176	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP36(C,D,K) HEATING MODE REFERENCE TABLE
(3.0 TON / SCROLL COMPRESSOR / SINGLE & THREE PHASE MODELS)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	32	31	31	31	31
		Disc. Pres.	261	277	285	294	300
		Disc. Temp.	199.6	213.4	219.2	225.4	230.0
	10	Suc. Press.	50	49	47	45	43
		Disc. Pres.	255	264	272	277	281
		Disc. Temp.	155.5	162.9	171.4	179.3	188.0
	20	Suc. Press.	63	63	63	64	64
		Disc. Pres.	265	272	280	288	296
		Disc. Temp.	141.3	144.6	147.9	151.3	154.6
	30	Suc. Press.	77	77	77	78	78
		Disc. Pres.	281	289	297	305	313
		Disc. Temp.	138.4	141.4	144.5	147.5	150.5
	40	Suc. Press.	92	92	93	93	93
		Disc. Pres.	304	312	320	329	337
		Disc. Temp.	139.6	141.9	144.8	147.7	150.5
	50	Suc. Press.	105	106	108	109	109
		Disc. Pres.	326	336	348	359	367
		Disc. Temp.	153.7	155.2	155.1	155.0	154.9
60	Suc. Press.	125	125	125	125	125	
	Disc. Pres.	358	367	377	386	396	
	Disc. Temp.	157.3	160.0	162.7	165.6	168.4	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)E4M1SP42K W/ FIXED ORIFICE INDOOR UNIT
(3.5 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	60	SH	18.6	19.1	19.9	21.0	22.4	24.1	26.0	28.2	30.7	33.4	36.5
		SC	9.1	9.0	9.1	9.2	9.5	9.9	10.5	11.1	11.9	12.8	13.9
		LIQ. PRESS.	225	224	224	225	225	226	227	229	230	233	235
		SUC. PRESS.	123	123	123	124	125	127	129	131	134	137	141
	70	SH	15.6	16.1	16.9	17.9	19.2	20.8	22.7	24.9	27.3	30.0	33.0
		SC	8.7	8.7	8.8	9.0	9.3	9.8	10.3	11.0	11.9	12.8	13.9
		LIQ. PRESS.	243	243	243	243	244	245	246	248	250	252	254
		SUC. PRESS.	126	126	127	128	129	131	133	135	138	142	146
	75	SH	13.0	13.4	14.1	15.1	16.4	18.0	19.8	21.9	24.3	27.0	29.9
		SC	8.3	8.3	8.4	8.6	9.0	9.5	10.1	10.9	11.7	12.7	13.8
		LIQ. PRESS.	263	262	263	263	264	265	266	268	270	272	275
		SUC. PRESS.	129	129	130	131	133	134	137	139	143	146	150
	80	SH	10.6	11.0	11.7	12.6	13.9	15.4	17.2	19.2	21.6	24.2	27.1
		SC	7.8	7.8	8.0	8.3	8.7	9.2	9.9	10.6	11.6	12.6	13.7
		LIQ. PRESS.	283	283	283	284	285	286	287	289	291	294	296
		SUC. PRESS.	132	132	133	134	136	138	141	143	147	150	154
	85	SH	8.6	8.9	9.6	10.5	11.7	13.1	14.9	16.9	19.2	21.7	24.6
		SC	7.2	7.3	7.5	7.8	8.3	8.8	9.5	10.4	11.3	12.4	13.6
		LIQ. PRESS.	304	305	305	306	307	308	309	311	313	316	318
		SUC. PRESS.	135	135	136	138	139	141	144	147	150	154	158
90	SH	6.9	7.2	7.8	8.6	9.8	11.2	12.9	14.8	17.1	19.6	22.4	
	SC	6.6	6.7	7.0	7.3	7.8	8.4	9.2	10.0	11.0	12.1	13.4	
	LIQ. PRESS.	327	327	327	328	329	331	332	334	336	339	342	
	SUC. PRESS.	137	138	139	141	142	145	147	151	154	158	162	
95	SH	5.5	5.8	6.3	7.1	8.2	7.3	11.2	13.1	15.3	17.8	20.5	
	SC	5.9	6.1	6.4	6.8	7.3	7.7	8.7	9.6	10.7	11.8	13.1	
	LIQ. PRESS.	350	350	351	352	353	348	356	358	360	363	366	
	SUC. PRESS.	140	141	142	143	145	146	151	154	157	162	166	
100	SH	5.0	5.0	5.1	5.9	6.9	8.2	9.8	11.7	13.9	16.3	19.0	
	SC	5.2	5.4	5.7	6.2	6.7	7.4	8.2	9.2	10.2	11.4	12.7	
	LIQ. PRESS.	374	375	375	376	378	379	381	383	386	388	391	
	SUC. PRESS.	142	143	144	146	148	151	154	157	161	165	170	
105	SH	5.0	5.0	5.0	5.0	6.0	7.3	8.8	10.6	12.7	15.1	17.8	
	SC	4.4	4.7	5.0	5.5	6.1	6.8	7.7	8.7	9.8	11.0	12.4	
	LIQ. PRESS.	400	400	401	402	403	405	407	409	412	414	417	
	SUC. PRESS.	144	145	147	148	151	153	156	160	164	168	173	
110	SH	5.0	5.0	5.0	5.0	5.4	6.6	8.1	9.9	11.9	14.2	16.9	
	SC	3.6	3.9	4.2	4.8	5.4	6.2	7.1	8.1	9.2	10.5	11.9	
	LIQ. PRESS.	426	426	427	428	430	432	434	436	438	441	445	
	SUC. PRESS.	146	147	149	151	153	156	159	163	167	171	176	
115	SH	5.0	5.0	5.0	5.0	5.1	6.2	7.7	9.4	11.4	13.7	16.3	
	SC	2.7	3.0	3.4	4.0	4.7	5.5	6.4	7.5	8.7	10.0	11.4	
	LIQ. PRESS.	453	454	455	456	457	459	461	464	466	469	473	
	SUC. PRESS.	148	149	151	153	155	158	162	165	170	174	179	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP42K W/ TXV INDOOR UNIT
(3.5 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.4	11.7	10.2	7.7	4.2
		LIQ. PRESS.	227	227	227	227	228	230	232	234	237	241	245
		SUC. PRESS.	121	122	124	127	130	134	139	145	151	158	166
	70	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.5	11.8	10.3	8.0	4.5
		LIQ. PRESS.	246	245	246	246	247	249	251	253	256	260	264
		SUC. PRESS.	123	124	126	128	132	136	141	146	152	159	167
	75	SC	11.4	11.3	11.6	12.0	12.4	12.7	12.6	12.0	10.6	8.3	4.9
		LIQ. PRESS.	266	266	266	266	267	269	271	274	277	280	284
		SUC. PRESS.	125	126	127	130	133	137	142	147	154	161	168
	80	SC	11.6	11.5	11.7	12.2	12.6	12.9	12.9	12.3	11.0	8.8	5.5
		LIQ. PRESS.	287	287	287	288	289	291	293	295	298	302	306
		SUC. PRESS.	126	127	129	132	135	139	143	149	155	162	170
	85	SC	11.9	11.7	11.9	12.4	12.9	13.2	13.2	12.7	11.4	9.3	6.2
		LIQ. PRESS.	310	310	310	311	312	314	316	318	321	325	329
		SUC. PRESS.	128	129	131	133	136	140	145	150	156	163	171
	90	SC	12.1	11.9	12.1	12.6	13.1	13.5	13.5	13.1	11.9	9.9	6.9
		LIQ. PRESS.	334	334	334	335	336	338	340	343	346	349	353
		SUC. PRESS.	130	131	132	135	138	142	146	151	158	164	172
	95	SC	12.3	12.1	12.4	12.8	13.4	9.5	13.9	13.5	12.5	10.6	7.6
		LIQ. PRESS.	360	359	360	361	362	360	366	368	371	375	379
		SUC. PRESS.	131	132	134	136	139	142	147	153	159	165	173
	100	SC	12.5	12.3	12.5	13.0	13.6	14.1	14.2	13.9	13.0	11.2	8.4
		LIQ. PRESS.	386	386	387	387	389	390	393	395	398	402	406
		SUC. PRESS.	133	134	135	137	140	144	149	154	160	166	174
105	SC	12.6	12.4	12.6	13.2	13.8	14.3	14.5	14.3	13.5	11.8	9.1	
	LIQ. PRESS.	415	414	415	416	417	419	421	424	427	430	435	
	SUC. PRESS.	134	135	136	139	142	145	150	155	161	167	175	
110	SC	12.6	12.4	12.7	13.2	13.9	14.5	14.8	14.7	13.9	12.4	9.8	
	LIQ. PRESS.	444	444	444	445	446	448	450	453	456	460	464	
	SUC. PRESS.	135	136	138	140	143	146	151	156	162	168	176	
115	SC	12.5	12.3	12.6	13.2	13.9	14.5	14.9	14.9	14.3	12.8	10.4	
	LIQ. PRESS.	475	475	475	476	477	479	481	484	487	491	495	
	SUC. PRESS.	137	137	139	141	144	147	152	157	163	169	176	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP42K HEATING MODE REFERENCE TABLE
(3.5 TON / SCROLL COMPRESSOR)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	32	31	31	31	31
		Disc. Pres.	268	278	287	295	303
		Disc. Temp.	214.8	229.6	238.2	245.2	252.2
	10	Suc. Press.	52	52	52	51	50
		Disc. Pres.	270	277	285	291	297
		Disc. Temp.	161.1	165.9	170.9	176.6	182.9
	20	Suc. Press.	65	66	66	66	66
		Disc. Pres.	285	293	301	309	317
		Disc. Temp.	151.5	154.7	158.1	161.5	164.9
	30	Suc. Press.	80	80	80	80	80
		Disc. Pres.	306	314	322	331	339
		Disc. Temp.	149.2	152.2	155.4	158.5	161.6
	40	Suc. Press.	95	95	96	96	96
		Disc. Pres.	336	344	353	361	370
		Disc. Temp.	151.1	154.0	157.0	159.9	162.8
	50	Suc. Press.	112	113	112	114	114
		Disc. Pres.	371	381	391	402	412
		Disc. Temp.	162.6	163.8	165.1	166.5	167.7
60	Suc. Press.	127	128	128	129	132	
	Disc. Pres.	401	411	421	433	448	
	Disc. Temp.	171.6	174.4	177.2	179.4	180.5	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)E4M1SP48(C,D,K) W/ FIXED ORIFICE INDOOR UNIT
(4.0 TON / SCROLL COMPRESSOR / COOLING MODE / SINGLE & THREE PHASE MODELS)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SH	10.5	12.6	14.9	17.5	20.4	23.6	27.2	31.0	35.1	39.6	40.0
		SC	7.4	7.8	8.2	8.6	9.0	9.4	9.8	10.2	10.6	11.0	11.4
		LIQ. PRESS.	236	237	237	238	239	240	241	241	242	243	244
		SUC. PRESS.	112	113	114	116	118	119	121	123	125	127	129
	70	SH	8.4	10.3	12.5	15.0	17.8	20.9	24.3	28.0	32.0	36.3	40.0
		SC	6.6	7.0	7.4	7.8	8.2	8.6	9.0	9.4	9.8	10.1	10.5
		LIQ. PRESS.	255	256	257	258	259	259	260	261	262	263	264
		SUC. PRESS.	114	115	117	119	121	123	125	127	129	131	133
	75	SH	6.5	8.2	10.3	12.7	15.4	18.3	21.6	25.2	29.1	33.3	37.7
		SC	5.9	6.3	6.7	7.1	7.4	7.8	8.2	8.6	9.0	9.4	9.8
		LIQ. PRESS.	275	276	277	278	279	280	281	282	283	285	286
		SUC. PRESS.	116	118	120	122	124	126	128	130	132	135	137
	80	SH	5.0	6.4	8.4	10.6	13.2	16.0	19.2	22.6	26.4	30.5	34.8
		SC	5.2	5.6	6.0	6.4	6.7	7.1	7.5	7.9	8.3	8.6	9.0
		LIQ. PRESS.	296	297	298	299	301	302	303	304	306	307	308
		SUC. PRESS.	118	120	122	124	126	129	131	133	136	138	141
	85	SH	5.0	5.0	6.7	8.8	11.2	14.0	17.0	20.3	24.0	27.9	32.1
		SC	4.6	4.9	5.3	5.7	6.1	6.4	6.8	7.2	7.6	7.9	8.3
		LIQ. PRESS.	318	319	321	322	323	325	326	327	329	330	331
		SUC. PRESS.	120	122	125	127	129	131	134	136	139	142	145
	90	SH	5.0	5.0	5.2	7.2	9.5	12.1	15.0	18.2	21.8	25.6	29.7
		SC	4.0	4.3	4.7	5.1	5.4	5.8	6.2	6.5	6.9	7.3	7.7
		LIQ. PRESS.	341	343	344	345	347	348	350	351	353	354	356
		SUC. PRESS.	122	125	127	129	132	134	137	140	142	145	148
	95	SH	5.0	5.0	5.0	5.9	8.1	3.6	13.3	16.4	19.8	23.5	27.5
		SC	3.4	3.7	4.1	4.5	4.8	8.4	5.6	5.9	6.3	6.7	7.0
		LIQ. PRESS.	365	367	368	370	371	353	375	376	378	379	381
		SUC. PRESS.	124	127	129	132	134	146	140	143	146	149	152
100	SH	5.0	5.0	5.0	5.0	6.8	9.2	11.8	14.8	18.1	21.6	25.5	
	SC	2.8	3.2	3.6	3.9	4.3	4.6	5.0	5.4	5.7	6.1	6.4	
	LIQ. PRESS.	390	392	394	395	397	399	400	402	404	405	407	
	SUC. PRESS.	126	129	131	134	137	139	142	145	149	152	155	
105	SH	5.0	5.0	5.0	5.0	5.9	8.1	10.6	13.4	16.6	20.0	23.7	
	SC	2.3	2.7	3.0	3.4	3.8	4.1	4.5	4.8	5.2	5.5	5.9	
	LIQ. PRESS.	416	418	420	422	423	425	427	429	431	433	434	
	SUC. PRESS.	128	130	133	136	139	142	145	148	152	155	158	
110	SH	5.0	5.0	5.0	5.0	5.1	7.2	9.6	12.3	15.3	18.6	22.2	
	SC	1.9	2.2	2.6	2.9	3.3	3.6	4.0	4.3	4.7	5.0	5.4	
	LIQ. PRESS.	443	445	447	449	451	453	455	457	459	461	463	
	SUC. PRESS.	129	132	135	138	141	144	148	151	154	158	162	
115	SH	5.0	5.0	5.0	5.0	5.0	6.5	8.8	11.4	14.3	17.5	21.0	
	SC	1.4	1.8	2.1	2.5	2.8	3.2	3.5	3.9	4.2	4.5	4.9	
	LIQ. PRESS.	471	473	476	478	480	482	484	486	488	490	492	
	SUC. PRESS.	131	134	137	140	143	147	150	154	157	161	165	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP48(C,D,K) W/ TXV INDOOR UNIT
(4.0 TON / SCROLL COMPRESSOR / COOLING MODE / SINGLE & THREE PHASE MODELS)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SC	14.9	14.5	14.2	14.0	13.8	13.5	13.0	12.4	11.4	10.2	8.5
		LIQ. PRESS.	251	252	253	254	256	257	259	261	263	265	267
		SUC. PRESS.	110	113	115	119	122	127	131	136	141	147	153
	70	SC	15.3	14.8	14.5	14.1	13.7	13.2	12.5	11.6	10.4	8.9	6.9
		LIQ. PRESS.	272	273	274	275	277	278	280	281	283	286	288
		SUC. PRESS.	112	114	117	121	124	128	133	138	143	149	155
	75	SC	15.8	15.3	14.8	14.4	13.8	13.2	12.3	11.2	9.8	7.9	5.7
		LIQ. PRESS.	295	295	296	297	299	300	302	303	305	307	310
		SUC. PRESS.	113	116	119	122	126	130	135	140	145	151	157
	80	SC	16.4	15.8	15.3	14.7	14.1	13.3	12.3	11.0	9.4	7.3	4.8
		LIQ. PRESS.	318	319	320	321	322	323	325	327	329	331	333
		SUC. PRESS.	115	118	121	124	128	132	137	142	147	153	159
	85	SC	16.9	16.3	15.8	15.2	14.5	13.6	12.5	11.0	9.2	7.0	4.2
		LIQ. PRESS.	343	344	345	346	347	348	350	351	353	355	357
		SUC. PRESS.	117	119	122	126	130	134	138	143	149	155	161
	90	SC	17.4	16.9	16.4	15.7	15.0	14.0	12.8	11.3	9.3	6.9	4.0
		LIQ. PRESS.	370	370	371	372	373	374	376	377	379	381	383
		SUC. PRESS.	118	121	124	127	131	135	140	145	151	156	163
	95	SC	17.9	17.4	16.9	16.3	15.6	11.6	13.3	11.6	9.6	7.0	3.9
		LIQ. PRESS.	397	398	399	400	401	373	403	405	407	409	411
		SUC. PRESS.	120	123	126	129	133	145	142	147	152	158	164
100	SC	18.2	17.9	17.4	16.9	16.1	15.1	13.8	12.1	10.0	7.3	4.1	
	LIQ. PRESS.	426	427	428	429	430	431	432	434	435	437	439	
	SUC. PRESS.	121	124	127	131	134	139	143	148	154	160	166	
105	SC	18.5	18.2	17.9	17.4	16.7	15.8	14.4	12.7	10.5	7.8	4.4	
	LIQ. PRESS.	457	457	458	459	460	461	462	464	465	467	469	
	SUC. PRESS.	123	126	129	132	136	140	145	150	156	161	168	
110	SC	18.5	18.5	18.3	17.9	17.3	16.4	15.1	13.3	11.1	8.4	4.9	
	LIQ. PRESS.	489	489	490	491	491	493	494	495	497	499	501	
	SUC. PRESS.	124	127	130	134	138	142	147	152	157	163	169	
115	SC	18.4	18.5	18.5	18.3	17.7	16.9	15.7	14.0	11.8	9.0	5.6	
	LIQ. PRESS.	522	522	523	524	524	526	527	528	530	531	533	
	SUC. PRESS.	126	128	132	135	139	143	148	153	159	165	171	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)E4M1SP48(C,D,K) HEATING MODE REFERENCE TABLE
(4.0 TON / SCROLL COMPRESSOR / SINGLE & THREE PHASE MODELS)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	41	41	41	41	41
		Disc. Pres.	313	322	331	339	349
		Disc. Temp.	182.7	187.9	193.1	199.0	204.6
	10	Suc. Press.	51	51	51	52	52
		Disc. Pres.	262	272	283	294	305
		Disc. Temp.	139.0	143.4	148.4	153.1	157.9
	20	Suc. Press.	64	64	64	64	64
		Disc. Pres.	265	272	280	288	296
		Disc. Temp.	129.6	132.6	135.7	138.7	141.9
	30	Suc. Press.	78	78	78	79	79
		Disc. Pres.	280	287	295	303	310
		Disc. Temp.	128.2	130.9	133.6	136.4	139.2
	40	Suc. Press.	93	93	94	94	94
		Disc. Pres.	301	309	317	325	333
		Disc. Temp.	130.4	132.9	135.4	138.0	140.6
	50	Suc. Press.	110	111	111	111	111
		Disc. Pres.	332	340	348	356	364
		Disc. Temp.	135.6	137.9	140.2	142.7	145.1
60	Suc. Press.	131	131	131	131	132	
	Disc. Pres.	365	374	383	392	402	
	Disc. Temp.	140.6	143.1	145.7	148.2	150.8	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)BE4M1SP60(C,D,K) W/ FIXED ORIFICE INDOOR UNIT
(5 TON / SCROLL COMPRESSOR / COOLING MODE / SINGLE & THREE PHASE MODELS)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SH	10.5	12.6	14.9	17.5	20.4	23.6	27.2	31.0	35.1	39.6	40.0
		SC	7.4	7.8	8.2	8.6	9.0	9.4	9.8	10.2	10.6	11.0	11.4
		LIQ. PRESS.	236	237	237	238	239	240	241	241	242	243	244
		SUC. PRESS.	112	113	114	116	118	119	121	123	125	127	129
	70	SH	8.4	10.3	12.5	15.0	17.8	20.9	24.3	28.0	32.0	36.3	40.0
		SC	6.6	7.0	7.4	7.8	8.2	8.6	9.0	9.4	9.8	10.1	10.5
		LIQ. PRESS.	255	256	257	258	259	259	260	261	262	263	264
		SUC. PRESS.	114	115	117	119	121	123	125	127	129	131	133
	75	SH	6.5	8.2	10.3	12.7	15.4	18.3	21.6	25.2	29.1	33.3	37.7
		SC	5.9	6.3	6.7	7.1	7.4	7.8	8.2	8.6	9.0	9.4	9.8
		LIQ. PRESS.	275	276	277	278	279	280	281	282	283	285	286
		SUC. PRESS.	116	118	120	122	124	126	128	130	132	135	137
	80	SH	5.0	6.4	8.4	10.6	13.2	16.0	19.2	22.6	26.4	30.5	34.8
		SC	5.2	5.6	6.0	6.4	6.7	7.1	7.5	7.9	8.3	8.6	9.0
		LIQ. PRESS.	296	297	298	299	301	302	303	304	306	307	308
		SUC. PRESS.	118	120	122	124	126	129	131	133	136	138	141
	85	SH	5.0	5.0	6.7	8.8	11.2	14.0	17.0	20.3	24.0	27.9	32.1
		SC	4.6	4.9	5.3	5.7	6.1	6.4	6.8	7.2	7.6	7.9	8.3
		LIQ. PRESS.	318	319	321	322	323	325	326	327	329	330	331
		SUC. PRESS.	120	122	125	127	129	131	134	136	139	142	145
	90	SH	5.0	5.0	5.2	7.2	9.5	12.1	15.0	18.2	21.8	25.6	29.7
		SC	4.0	4.3	4.7	5.1	5.4	5.8	6.2	6.5	6.9	7.3	7.7
		LIQ. PRESS.	341	343	344	345	347	348	350	351	353	354	356
		SUC. PRESS.	122	125	127	129	132	134	137	140	142	145	148
95	SH	5.0	5.0	5.0	5.9	8.1	15.6	13.3	16.4	19.8	23.5	27.5	
	SC	3.4	3.7	4.1	4.5	4.8	4.3	5.6	5.9	6.3	6.7	7.0	
	LIQ. PRESS.	365	367	368	370	371	351	375	376	378	379	381	
	SUC. PRESS.	124	127	129	132	134	132	140	143	146	149	152	
100	SH	5.0	5.0	5.0	5.0	6.8	9.2	11.8	14.8	18.1	21.6	25.5	
	SC	2.8	3.2	3.6	3.9	4.3	4.6	5.0	5.4	5.7	6.1	6.4	
	LIQ. PRESS.	390	392	394	395	397	399	400	402	404	405	407	
	SUC. PRESS.	126	129	131	134	137	139	142	145	149	152	155	
105	SH	5.0	5.0	5.0	5.0	5.9	8.1	10.6	13.4	16.6	20.0	23.7	
	SC	2.3	2.7	3.0	3.4	3.8	4.1	4.5	4.8	5.2	5.5	5.9	
	LIQ. PRESS.	416	418	420	422	423	425	427	429	431	433	434	
	SUC. PRESS.	128	130	133	136	139	142	145	148	152	155	158	
110	SH	5.0	5.0	5.0	5.0	5.1	7.2	9.6	12.3	15.3	18.6	22.2	
	SC	1.9	2.2	2.6	2.9	3.3	3.6	4.0	4.3	4.7	5.0	5.4	
	LIQ. PRESS.	443	445	447	449	451	453	455	457	459	461	463	
	SUC. PRESS.	129	132	135	138	141	144	148	151	154	158	162	
115	SH	5.0	5.0	5.0	5.0	5.0	6.5	8.8	11.4	14.3	17.5	21.0	
	SC	1.4	1.8	2.1	2.5	2.8	3.2	3.5	3.9	4.2	4.5	4.9	
	LIQ. PRESS.	471	473	476	478	480	482	484	486	488	490	492	
	SUC. PRESS.	131	134	137	140	143	147	150	154	157	161	165	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)BE4M1SP60(C,D,K) W/ TXV INDOOR UNIT
(5 TON / SCROLL COMPRESSOR / COOLING MODE / SINGLE & THREE PHASE MODELS)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	65	SC	14.9	14.5	14.2	14.0	13.8	13.5	13.0	12.4	11.4	10.2	8.5
		LIQ. PRESS.	251	252	253	254	256	257	259	261	263	265	267
		SUC. PRESS.	110	113	115	119	122	127	131	136	141	147	153
	70	SC	15.3	14.8	14.5	14.1	13.7	13.2	12.5	11.6	10.4	8.9	6.9
		LIQ. PRESS.	272	273	274	275	277	278	280	281	283	286	288
		SUC. PRESS.	112	114	117	121	124	128	133	138	143	149	155
	75	SC	15.8	15.3	14.8	14.4	13.8	13.2	12.3	11.2	9.8	7.9	5.7
		LIQ. PRESS.	295	295	296	297	299	300	302	303	305	307	310
		SUC. PRESS.	113	116	119	122	126	130	135	140	145	151	157
	80	SC	16.4	15.8	15.3	14.7	14.1	13.3	12.3	11.0	9.4	7.3	4.8
		LIQ. PRESS.	318	319	320	321	322	323	325	327	329	331	333
		SUC. PRESS.	115	118	121	124	128	132	137	142	147	153	159
	85	SC	16.9	16.3	15.8	15.2	14.5	13.6	12.5	11.0	9.2	7.0	4.2
		LIQ. PRESS.	343	344	345	346	347	348	350	351	353	355	357
		SUC. PRESS.	117	119	122	126	130	134	138	143	149	155	161
	90	SC	17.4	16.9	16.4	15.7	15.0	14.0	12.8	11.3	9.3	6.9	4.0
		LIQ. PRESS.	370	370	371	372	373	374	376	377	379	381	383
		SUC. PRESS.	118	121	124	127	131	135	140	145	151	156	163
	95	SC	17.9	17.4	16.9	16.3	15.6	14.0	13.3	11.6	9.6	7.0	3.9
		LIQ. PRESS.	397	398	399	400	401	401	403	405	407	409	411
		SUC. PRESS.	120	123	126	129	133	132	142	147	152	158	164
	100	SC	18.2	17.9	17.4	16.9	16.1	15.1	13.8	12.1	10.0	7.3	4.1
		LIQ. PRESS.	426	427	428	429	430	431	432	434	435	437	439
		SUC. PRESS.	121	124	127	131	134	139	143	148	154	160	166
105	SC	18.5	18.2	17.9	17.4	16.7	15.8	14.4	12.7	10.5	7.8	4.4	
	LIQ. PRESS.	457	457	458	459	460	461	462	464	465	467	469	
	SUC. PRESS.	123	126	129	132	136	140	145	150	156	161	168	
110	SC	18.5	18.5	18.3	17.9	17.3	16.4	15.1	13.3	11.1	8.4	4.9	
	LIQ. PRESS.	489	489	490	491	491	493	494	495	497	499	501	
	SUC. PRESS.	124	127	130	134	138	142	147	152	157	163	169	
115	SC	18.4	18.5	18.5	18.3	17.7	16.9	15.7	14.0	11.8	9.0	5.6	
	LIQ. PRESS.	522	522	523	524	524	526	527	528	530	531	533	
	SUC. PRESS.	126	128	132	135	139	143	148	153	159	165	171	

SC = Subcooling at the liquid valve
 -Subcooling tolerance is ± 1°F
 -Refrigerant pressures are reference values for troubleshooting purposes only
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)BE4M1SP60(C,D,K) HEATING MODE REFERENCE TABLE
(5.0 TON / SCROLL COMPRESSOR / SINGLE & THREE PHASE MODELS)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	39	39	39	39	39
		Disc. Pres.	314	322	328	341	350
		Disc. Temp.	189.4	194.3	197.6	206.0	212.4
	10	Suc. Press.	48	49	49	49	49
		Disc. Pres.	272	281	289	297	306
		Disc. Temp.	149.3	152.6	156.5	160.3	164.3
	20	Suc. Press.	61	61	61	61	61
		Disc. Pres.	284	292	300	308	316
		Disc. Temp.	141.7	144.8	147.9	151.1	154.3
	30	Suc. Press.	74	74	75	75	75
		Disc. Pres.	304	311	319	327	336
		Disc. Temp.	140.1	142.9	145.7	148.5	151.4
	40	Suc. Press.	88	88	88	89	89
		Disc. Pres.	330	338	346	354	362
		Disc. Temp.	142.3	144.9	147.5	150.1	152.8
	50	Suc. Press.	105	105	104	105	105
		Disc. Pres.	366	374	381	390	398
		Disc. Temp.	147.6	150.0	152.3	154.8	157.3
60	Suc. Press.	124	124	124	125	125	
	Disc. Pres.	409	417	426	435	444	
	Disc. Temp.	154.5	156.8	159.2	161.5	163.9	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)BE4M1SP60KA W/ TXV INDOOR UNIT
(5.0 TON / SCROLL COMPRESSOR / COOLING MODE)**

14 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	60	SH	14.6	14.3	14.2	14.1	14.1	14.0	13.8	13.4	12.8	11.8	10.5
		SC	220	221	223	224	226	228	229	230	231	231	232
		SUC. PRESS.	108	111	115	119	124	128	133	137	142	147	153
	65	SH	14.9	14.5	14.2	14.0	13.8	13.5	13.0	12.4	11.4	10.2	8.5
		SC	240	241	243	244	246	247	249	250	251	250	250
		SUC. PRESS.	109	113	116	120	125	129	134	139	144	149	154
	70	SH	15.3	14.8	14.5	14.1	13.7	13.2	12.5	11.6	10.4	8.9	6.9
		SC	261	262	262	264	265	267	268	270	270	269	269
		SUC. PRESS.	110	114	117	121	126	130	135	140	145	150	156
	75	SH	15.8	15.3	14.8	14.4	13.8	13.2	12.3	11.2	9.8	7.9	5.7
		SC	281	282	282	283	285	286	288	289	289	288	287
		SUC. PRESS.	112	115	118	122	127	131	136	141	146	152	157
	80	SH	16.4	15.8	15.3	14.7	14.1	13.3	12.3	11.0	9.4	7.3	4.8
		SC	305	305	305	305	307	308	309	311	311	309	308
		SUC. PRESS.	113	116	119	123	128	132	137	142	148	153	159
	85	SH	16.9	16.3	15.8	15.2	14.5	13.6	12.5	11.0	9.2	7.0	4.2
		SC	329	328	327	328	329	330	331	332	332	330	329
		SUC. PRESS.	115	117	120	124	129	134	139	144	149	155	160
90	SH	17.4	16.9	16.4	15.7	15.0	14.0	12.8	11.3	9.3	6.9	4.0	
	SC	356	354	353	353	353	351	355	356	356	354	352	
	SUC. PRESS.	116	119	122	125	130	135	140	145	150	156	162	
95	SH	17.9	17.4	16.9	16.3	15.6	10.1	13.3	11.6	9.6	7.0	3.9	
	SC	382	381	379	378	378	373	379	380	379	378	376	
	SUC. PRESS.	118	120	123	126	131	136	141	146	152	157	163	
100	SH	18.2	17.9	17.4	16.9	16.1	15.1	13.8	12.1	10.0	7.3	4.1	
	SC	411	410	409	408	407	403	406	406	406	405	404	
	SUC. PRESS.	120	122	124	128	132	137	142	147	153	159	165	
105	SH	18.5	18.2	17.9	17.4	16.7	15.8	14.4	12.7	10.5	7.8	4.4	
	SC	440	439	438	437	435	433	433	433	433	433	433	
	SUC. PRESS.	122	124	126	129	134	138	143	149	154	160	166	
110	SH	18.5	18.5	18.3	17.9	17.3	16.4	15.1	13.3	11.1	8.4	4.9	
	SC	470	470	470	468	467	465	463	462	461	461	460	
	SUC. PRESS.	124	125	127	130	135	140	145	150	155	161	168	
115	SH	18.4	18.5	18.5	18.3	17.7	16.9	15.7	14.0	11.8	9.0	5.6	
	SC	501	501	501	500	498	496	494	491	490	489	488	
	SUC. PRESS.	126	127	129	132	136	141	146	151	157	163	169	

SC = Subcooling at the liquid valve; SH = Superheat at the vapor valve
 -Subcooling tolerance is ± 1°F
 -Superheat tolerance is ± 1°F
 -The subcooling and refrigerant pressures on this table are reference values for troubleshooting purposes only. Charge to superheat.
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)BE4M1SP60KA HEATING MODE REFERENCE TABLE
(5.0 TON / SCROLL COMPRESSOR)**

14 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	39	39	39	39	39
		Disc. Pres.	251	345	355	364	371
		Disc. Temp.	152.1	206.6	212.7	219.3	223.8
	10	Suc. Press.	49	49	49	49	50
		Disc. Pres.	264	278	347	296	295
		Disc. Temp.	143.8	150.5	184.7	159.2	157.6
	20	Suc. Press.	61	61	61	62	62
		Disc. Pres.	279	287	306	302	310
		Disc. Temp.	139.5	142.6	151.1	148.8	152.0
	30	Suc. Press.	75	75	74	75	75
		Disc. Pres.	296	304	325	320	328
		Disc. Temp.	137.6	140.5	148.6	146.2	149.2
	40	Suc. Press.	90	89	89	90	90
		Disc. Pres.	315	330	359	346	348
		Disc. Temp.	137.8	142.9	152.9	148.1	148.5
	50	Suc. Press.	107	105	105	106	107
		Disc. Pres.	338	369	398	385	374
		Disc. Temp.	139.5	149.7	158.7	154.3	150.3
60	Suc. Press.	127	124	124	125	126	
	Disc. Pres.	365	417	427	435	415	
	Disc. Temp.	142.8	158.1	160.8	162.9	157.1	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)F4M1SP24K W/ TXV INDOOR UNIT
(2.0 TON / SCROLL COMPRESSOR / COOLING MODE)**

16 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	60	SC	7.6	7.7	7.8	7.9	8.0	7.9	7.6	7.0	6.2	4.9	3.3
		LIQ. PRESS.	204	205	205	206	208	209	210	211	212	213	214
		SUC. PRESS.	120	123	126	130	134	139	144	149	154	160	165
	65	SC	8.0	8.0	8.2	8.3	8.3	8.3	8.0	7.6	6.8	5.7	4.1
		LIQ. PRESS.	222	223	224	225	226	228	229	230	231	232	233
		SUC. PRESS.	122	124	127	130	135	140	145	150	155	161	166
	70	SC	8.2	8.3	8.4	8.5	8.6	8.6	8.4	8.0	7.3	6.3	4.9
		LIQ. PRESS.	241	241	242	243	244	246	247	249	250	251	252
		SUC. PRESS.	123	125	128	131	135	140	145	150	156	161	167
	75	SC	8.4	8.4	8.5	8.7	8.8	8.8	8.7	8.3	7.7	6.8	5.5
		LIQ. PRESS.	259	260	260	261	263	264	266	267	268	270	271
		SUC. PRESS.	124	126	128	132	136	140	146	151	156	162	168
	80	SC	8.5	8.5	8.6	8.7	8.9	8.9	8.9	8.6	8.1	7.2	6.0
		LIQ. PRESS.	279	280	281	282	283	285	286	288	289	290	291
		SUC. PRESS.	126	127	129	133	137	142	147	152	157	163	169
	85	SC	8.6	8.5	8.7	8.8	9.0	9.1	9.0	8.8	8.4	7.6	6.5
		LIQ. PRESS.	300	300	301	302	304	305	307	308	310	311	312
		SUC. PRESS.	127	129	130	133	138	143	148	153	158	164	169
90	SC	8.7	8.6	8.7	8.9	9.1	9.2	9.2	9.1	8.7	8.0	7.1	
	LIQ. PRESS.	322	323	323	324	326	329	329	331	332	333	335	
	SUC. PRESS.	128	130	131	134	139	145	149	154	159	165	170	
95	SC	8.8	8.7	8.8	9.0	9.2	10.0	9.4	9.3	9.0	8.5	7.6	
	LIQ. PRESS.	345	345	346	347	348	352	352	353	355	356	358	
	SUC. PRESS.	130	131	132	135	140	148	150	155	160	165	171	
100	SC	9.0	8.9	9.0	9.2	9.4	9.6	9.7	9.7	9.4	9.0	8.2	
	LIQ. PRESS.	370	370	370	371	373	376	377	379	380	381	383	
	SUC. PRESS.	131	132	134	136	141	147	151	156	161	166	171	
105	SC	9.3	9.2	9.2	9.4	9.7	9.9	10.0	10.1	9.9	9.6	8.9	
	LIQ. PRESS.	395	395	395	396	398	400	402	404	405	406	408	
	SUC. PRESS.	133	134	135	137	142	147	152	157	162	167	172	
110	SC	9.7	9.6	9.6	9.8	10.1	10.3	10.5	10.6	10.5	10.3	9.7	
	LIQ. PRESS.	424	424	424	425	427	429	431	432	434	435	436	
	SUC. PRESS.	135	135	136	139	143	148	153	158	163	167	172	
115	SC	10.3	10.2	10.2	10.4	10.6	10.9	11.2	11.3	11.3	11.1	10.6	
	LIQ. PRESS.	453	453	452	453	455	457	459	461	463	463	464	
	SUC. PRESS.	137	137	137	140	144	149	154	159	163	168	173	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)F4M1SP24K HEATING MODE REFERENCE TABLE
(2.0 TON / SCROLL COMPRESSOR)**

16 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	42	42	42	42	43
		Disc. Pres.	245	252	260	267	274
		Disc. Temp.	157.2	160.9	164.8	168.4	172.2
	10	Suc. Press.	54	54	54	54	54
		Disc. Pres.	252	260	267	275	283
		Disc. Temp.	144.2	147.6	151.0	154.3	157.8
	20	Suc. Press.	67	67	68	68	68
		Disc. Pres.	265	273	280	288	296
		Disc. Temp.	137.4	140.5	143.6	146.8	150.0
	30	Suc. Press.	82	82	82	82	82
		Disc. Pres.	272	280	287	295	303
		Disc. Temp.	131.1	133.9	136.8	139.7	142.5
	40	Suc. Press.	97	97	98	98	98
		Disc. Pres.	291	299	307	315	323
		Disc. Temp.	131.2	133.9	136.6	139.3	142.0
	50	Suc. Press.	116	116	116	116	117
		Disc. Pres.	316	324	333	341	349
		Disc. Temp.	133.8	136.3	138.8	141.4	144.0
60	Suc. Press.	137	137	137	137	138	
	Disc. Pres.	347	355	363	372	380	
	Disc. Temp.	138.4	140.6	143.0	145.4	147.8	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)F4M1SP30K W/ TXV INDOOR UNIT
(2.5 TON / SCROLL COMPRESSOR / COOLING MODE)**

16 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	60	SC	7.6	7.7	7.8	7.9	8.0	7.9	7.6	7.0	6.2	4.9	3.3
		LIQ. PRESS.	211	212	213	214	215	217	218	220	221	222	223
		SUC. PRESS.	123	126	128	131	136	141	146	151	157	162	168
	65	SC	8.0	8.0	8.2	8.3	8.3	8.3	8.0	7.6	6.8	5.7	4.1
		LIQ. PRESS.	230	230	231	232	234	236	237	239	240	241	243
		SUC. PRESS.	125	127	129	132	137	142	147	152	157	163	168
	70	SC	8.2	8.3	8.4	8.5	8.6	8.6	8.4	8.0	7.3	6.3	4.9
		LIQ. PRESS.	248	249	250	251	253	254	256	257	259	260	262
		SUC. PRESS.	126	128	130	133	138	142	147	152	158	163	169
	75	SC	8.4	8.4	8.5	8.7	8.8	8.8	8.7	8.3	7.7	6.8	5.5
		LIQ. PRESS.	267	268	268	270	271	273	275	276	278	279	281
		SUC. PRESS.	128	129	131	134	138	143	148	153	158	164	170
	80	SC	8.5	8.5	8.6	8.7	8.9	8.9	8.9	8.6	8.1	7.2	6.0
		LIQ. PRESS.	288	288	289	290	292	294	295	297	299	300	302
		SUC. PRESS.	129	130	131	135	139	144	149	154	159	165	171
	85	SC	8.6	8.5	8.7	8.8	9.0	9.1	9.0	8.8	8.4	7.6	6.5
		LIQ. PRESS.	308	309	309	310	312	314	316	318	320	322	323
		SUC. PRESS.	130	131	132	135	140	145	150	155	161	166	172
	90	SC	8.7	8.6	8.7	8.9	9.1	9.2	9.2	9.1	8.7	8.0	7.1
		LIQ. PRESS.	331	331	332	333	335	338	339	341	343	345	346
		SUC. PRESS.	131	132	133	136	141	147	151	156	161	167	172
	95	SC	8.8	8.7	8.8	9.0	9.2	9.6	9.4	9.3	9.0	8.5	7.6
		LIQ. PRESS.	354	354	355	356	358	361	362	364	366	368	369
		SUC. PRESS.	133	133	134	137	142	149	152	157	162	167	173
100	SC	9.0	8.9	9.0	9.2	9.4	9.6	9.7	9.7	9.4	9.0	8.2	
	LIQ. PRESS.	379	379	379	381	383	386	387	389	391	393	395	
	SUC. PRESS.	134	135	135	138	143	148	152	157	163	168	173	
105	SC	9.3	9.2	9.2	9.4	9.7	9.9	10.0	10.1	9.9	9.6	8.9	
	LIQ. PRESS.	404	404	404	406	408	410	412	415	417	419	420	
	SUC. PRESS.	136	136	137	139	144	148	153	158	163	168	174	
110	SC	9.7	9.6	9.6	9.8	10.1	10.3	10.5	10.6	10.5	10.3	9.7	
	LIQ. PRESS.	432	432	432	434	436	438	441	443	445	447	449	
	SUC. PRESS.	138	138	138	140	145	150	154	159	164	169	174	
115	SC	10.3	10.2	10.2	10.4	10.6	10.9	11.2	11.3	11.3	11.1	10.6	
	LIQ. PRESS.	461	461	460	462	464	467	469	472	474	475	477	
	SUC. PRESS.	139	139	139	141	146	151	155	160	165	170	175	

SC = Subcooling at the liquid valve
 -Subcooling tolerance is ± 1°F
 -Refrigerant pressures are reference values for troubleshooting purposes only
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)F4M1SP30K HEATING MODE REFERENCE TABLE
(2.5 TON / SCROLL COMPRESSOR)**

16 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	39	39	38	38	38
		Disc. Pres.	268	277	283	288	291
		Disc. Temp.	122.0	127.3	131.3	134.3	135.7
	10	Suc. Press.	53	53	53	53	53
		Disc. Pres.	254	262	269	276	284
		Disc. Temp.	104.0	107.1	110.1	112.9	115.4
	20	Suc. Press.	66	66	66	66	66
		Disc. Pres.	262	269	277	284	292
		Disc. Temp.	103.0	105.3	107.8	110.2	112.5
	30	Suc. Press.	79	80	80	80	80
		Disc. Pres.	279	287	294	302	310
		Disc. Temp.	105.9	108.2	110.5	112.9	115.1
	40	Suc. Press.	95	95	95	95	95
		Disc. Pres.	304	312	320	328	336
		Disc. Temp.	111.5	113.8	116.3	118.6	120.7
	50	Suc. Press.	113	113	113	113	113
		Disc. Pres.	340	349	358	366	375
		Disc. Temp.	123.1	125.8	128.3	130.5	132.5
60	Suc. Press.	128	128	127	127	128	
	Disc. Pres.	356	364	373	382	392	
	Disc. Temp.	131.5	134.0	136.4	138.6	140.9	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)F4M1SP36K W/ TXV INDOOR UNIT
(3.0 TON / SCROLL COMPRESSOR / COOLING MODE)**

16 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	60	SC	11.2	11.3	11.6	12.1	12.5	12.7	12.6	11.8	10.2	7.7	4.0
		LIQ. PRESS.	213	214	215	216	218	220	221	222	223	224	224
		SUC. PRESS.	122	124	126	130	135	140	145	150	155	161	167
	65	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.4	11.7	10.2	7.7	4.2
		LIQ. PRESS.	232	232	233	235	237	239	240	242	243	243	244
		SUC. PRESS.	123	125	127	131	136	141	146	151	156	162	168
	70	SC	11.2	11.2	11.5	11.9	12.4	12.6	12.5	11.8	10.3	8.0	4.5
		LIQ. PRESS.	250	251	252	254	256	258	260	261	262	262	263
		SUC. PRESS.	124	126	128	131	136	141	147	152	157	163	169
	75	SC	11.4	11.3	11.6	12.0	12.4	12.7	12.6	12.0	10.6	8.3	4.9
		LIQ. PRESS.	269	270	271	272	275	277	279	280	281	282	282
		SUC. PRESS.	125	127	128	132	137	142	147	153	159	165	171
	80	SC	11.6	11.5	11.7	12.2	12.6	12.9	12.9	12.3	11.0	8.8	5.5
		LIQ. PRESS.	290	291	292	293	296	298	300	302	303	303	304
		SUC. PRESS.	126	128	129	132	137	142	148	154	160	166	172
	85	SC	11.9	11.7	11.9	12.4	12.9	13.2	13.2	12.7	11.4	9.3	6.2
		LIQ. PRESS.	311	312	313	314	316	319	321	323	324	325	325
		SUC. PRESS.	127	129	130	133	138	142	148	155	161	167	173
	90	SC	12.1	11.9	12.1	12.6	13.1	13.5	13.5	13.1	11.9	9.9	6.9
		LIQ. PRESS.	335	335	336	338	340	340	345	347	348	349	349
		SUC. PRESS.	129	130	131	134	139	144	150	156	162	168	174
	95	SC	12.3	12.1	12.4	12.8	13.4	10.0	13.9	13.5	12.5	10.6	7.6
		LIQ. PRESS.	358	359	360	361	364	361	369	371	372	372	373
		SUC. PRESS.	130	131	132	135	140	147	151	157	163	169	175
100	SC	12.5	12.3	12.5	13.0	13.6	14.1	14.2	13.9	13.0	11.2	8.4	
	LIQ. PRESS.	385	385	386	387	391	391	396	398	399	399	399	
	SUC. PRESS.	132	133	134	137	142	147	152	158	164	170	176	
105	SC	12.6	12.4	12.6	13.2	13.8	14.3	14.5	14.3	13.5	11.8	9.1	
	LIQ. PRESS.	411	411	412	414	417	421	423	425	426	425	425	
	SUC. PRESS.	134	134	135	138	143	148	154	159	165	171	177	
110	SC	12.6	12.4	12.7	13.2	13.9	14.5	14.8	14.7	13.9	12.4	9.8	
	LIQ. PRESS.	439	439	440	442	446	450	452	454	455	454	453	
	SUC. PRESS.	135	136	136	139	144	150	155	161	167	173	179	
115	SC	12.5	12.3	12.6	13.2	13.9	14.5	14.9	14.9	14.3	12.8	10.4	
	LIQ. PRESS.	467	467	468	471	475	480	482	484	485	483	482	
	SUC. PRESS.	137	137	137	140	146	151	157	162	168	174	180	

SC = Subcooling at the liquid valve
 -Subcooling tolerance is ± 1°F
 -Refrigerant pressures are reference values for troubleshooting purposes only
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.
 -Boxed data point is the performance rated condition
 -Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)F4M1SP36K HEATING MODE REFERENCE TABLE
(3.0 TON / SCROLL COMPRESSOR)**

16 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	31	31	31	31	31
		Disc. Pres.	302	313	322	332	341
		Disc. Temp.	241.8	250.2	258.1	265.8	273.6
	10	Suc. Press.	51	51	51	50	49
		Disc. Pres.	268	277	286	297	306
		Disc. Temp.	163.2	169.0	175.3	183.9	193.0
	20	Suc. Press.	64	64	64	64	65
		Disc. Pres.	278	286	293	301	309
		Disc. Temp.	151.0	154.4	158.0	161.6	165.1
	30	Suc. Press.	78	78	78	78	79
		Disc. Pres.	297	305	314	322	330
		Disc. Temp.	148.2	151.4	154.7	157.9	161.2
	40	Suc. Press.	94	94	94	94	95
		Disc. Pres.	328	336	345	354	363
		Disc. Temp.	150.2	153.3	156.5	159.6	162.6
	50	Suc. Press.	110	111	112	112	112
		Disc. Pres.	356	367	377	387	399
		Disc. Temp.	161.1	162.0	163.1	164.2	165.6
60	Suc. Press.	126	127	127	127	129	
	Disc. Pres.	376	386	396	405	418	
	Disc. Temp.	165.2	168.2	171.0	174.0	175.7	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)F4M1SP42K W/ TXV INDOOR UNIT
(3.5 TON / SCROLL COMPRESSOR / COOLING MODE)**

16 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	60	SC	14.6	14.3	14.2	14.1	14.1	14.0	13.8	13.4	12.8	11.8	10.5
		LIQ. PRESS.	216	216	217	218	219	221	222	223	224	226	228
		SUC. PRESS.	122	125	127	131	136	141	145	149	154	161	168
	65	SC	14.9	14.5	14.2	14.0	13.8	13.5	13.0	12.4	11.4	10.2	8.5
		LIQ. PRESS.	237	237	236	237	238	240	241	242	243	245	246
		SUC. PRESS.	123	126	128	132	137	142	146	151	156	163	169
	70	SC	15.3	14.8	14.5	14.1	13.7	13.2	12.5	11.6	10.4	8.9	6.9
		LIQ. PRESS.	258	257	256	257	258	258	260	261	262	263	265
		SUC. PRESS.	125	127	129	132	137	142	148	153	158	164	170
	75	SC	15.8	15.3	14.8	14.4	13.8	13.2	12.3	11.2	9.8	7.9	5.7
		LIQ. PRESS.	279	278	276	276	277	277	279	280	281	282	283
		SUC. PRESS.	126	128	130	133	138	143	149	154	160	166	172
	80	SC	16.4	15.8	15.3	14.7	14.1	13.3	12.3	11.0	9.4	7.3	4.8
		LIQ. PRESS.	303	302	300	299	299	298	300	301	302	303	304
		SUC. PRESS.	127	129	131	134	139	144	150	155	161	167	173
	85	SC	16.9	16.3	15.8	15.2	14.5	13.6	12.5	11.0	9.2	7.0	4.2
		LIQ. PRESS.	328	325	323	322	320	319	320	322	323	323	324
		SUC. PRESS.	129	130	132	135	140	145	150	156	162	168	175
	90	SC	17.4	16.9	16.4	15.7	15.0	14.0	12.8	11.3	9.3	6.9	4.0
		LIQ. PRESS.	354	352	350	348	346	341	344	345	346	346	347
		SUC. PRESS.	131	132	133	136	141	145	151	157	163	169	176
	95	SC	17.9	17.4	16.9	16.3	15.6	11.8	13.3	11.6	9.6	7.0	3.9
		LIQ. PRESS.	381	379	377	374	371	362	368	368	369	369	370
		SUC. PRESS.	132	133	134	137	142	146	152	158	164	171	177
100	SC	18.2	17.9	17.4	16.9	16.1	15.1	13.8	12.1	10.0	7.3	4.1	
	LIQ. PRESS.	410	408	406	404	400	394	396	395	394	395	395	
	SUC. PRESS.	134	135	135	138	143	147	153	159	165	172	178	
105	SC	18.5	18.2	17.9	17.4	16.7	15.8	14.4	12.7	10.5	7.8	4.4	
	LIQ. PRESS.	440	438	436	433	429	425	423	421	420	420	420	
	SUC. PRESS.	136	137	137	139	144	149	154	160	166	173	179	
110	SC	18.5	18.5	18.3	17.9	17.3	16.4	15.1	13.3	11.1	8.4	4.9	
	LIQ. PRESS.	470	469	468	465	462	459	455	451	448	448	448	
	SUC. PRESS.	139	139	138	141	145	150	156	161	167	174	181	
115	SC	18.4	18.5	18.5	18.3	17.7	16.9	15.7	14.0	11.8	9.0	5.6	
	LIQ. PRESS.	500	500	499	498	495	492	486	480	477	476	475	
	SUC. PRESS.	141	141	140	142	147	152	157	163	169	175	182	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
- All pressure measurements are in PSIG.
- Boxed data point is the performance rated condition
- Having Difficulties? Try www.chargecalculator.com

***SH(1,2)(B,Q)F4M1SP42K HEATING MODE REFERENCE TABLE
(3.5 TON / SCROLL COMPRESSOR)**

16 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	42	42	42	42	42
		Disc. Pres.	312	320	329	339	349
		Disc. Temp.	193.0	198.6	204.2	209.9	215.6
	10	Suc. Press.	53	53	53	53	53
		Disc. Pres.	268	277	286	297	308
		Disc. Temp.	150.0	154.2	158.9	163.7	169.0
	20	Suc. Press.	66	66	66	67	67
		Disc. Pres.	269	276	284	291	299
		Disc. Temp.	138.1	141.1	144.2	147.3	150.5
	30	Suc. Press.	81	81	81	81	81
		Disc. Pres.	284	291	299	307	315
		Disc. Temp.	135.1	137.9	140.7	143.6	146.5
	40	Suc. Press.	96	96	96	96	97
		Disc. Pres.	308	316	323	331	339
		Disc. Temp.	137.0	139.5	142.0	144.6	147.2
	50	Suc. Press.	113	113	114	114	115
		Disc. Pres.	349	356	364	371	380
		Disc. Temp.	144.1	146.3	148.6	151.0	153.4
60	Suc. Press.	134	135	134	135	135	
	Disc. Pres.	376	386	394	404	413	
	Disc. Temp.	146.8	149.4	151.9	154.6	157.1	

These values are for reference only and are not for charging the system
 -All temperature measurements are in degrees Fahrenheit.
 -All pressure measurements are in PSIG.

***SH(1,2)(B,Q)F4M1SP48K W/ TXV INDOOR UNIT
(4.0 TON / SCROLL COMPRESSOR / COOLING MODE)**

16 SEER		INDOOR WET-BULB TEMPERATURE (°F)											
		57	59	61	63	65	67	69	71	73	75	77	
OUTDOOR DRY-BULB TEMPERATURE (°F)	60	SC	14.6	14.3	14.2	14.1	14.1	14.0	13.8	13.4	12.8	11.8	10.5
		LIQ. PRESS.	217	217	218	219	221	223	224	226	227	229	230
		SUC. PRESS.	121	123	126	130	135	139	145	150	155	161	166
	65	SC	14.9	14.5	14.2	14.0	13.8	13.5	13.0	12.4	11.4	10.2	8.5
		LIQ. PRESS.	238	238	238	239	240	242	243	245	246	247	248
		SUC. PRESS.	122	124	127	130	135	140	145	151	156	162	167
	70	SC	15.3	14.8	14.5	14.1	13.7	13.2	12.5	11.6	10.4	8.9	6.9
		LIQ. PRESS.	258	258	257	258	259	260	262	263	265	266	267
		SUC. PRESS.	123	125	127	130	136	141	146	152	157	163	169
	75	SC	15.8	15.3	14.8	14.4	13.8	13.2	12.3	11.2	9.8	7.9	5.7
		LIQ. PRESS.	279	278	277	277	278	279	281	282	283	285	286
		SUC. PRESS.	124	126	127	131	136	142	147	153	159	164	170
	80	SC	16.4	15.8	15.3	14.7	14.1	13.3	12.3	11.0	9.4	7.3	4.8
		LIQ. PRESS.	303	302	300	299	300	300	302	303	304	305	306
		SUC. PRESS.	125	127	129	132	137	142	148	153	159	166	172
	85	SC	16.9	16.3	15.8	15.2	14.5	13.6	12.5	11.0	9.2	7.0	4.2
		LIQ. PRESS.	328	326	323	322	322	321	322	324	325	326	327
		SUC. PRESS.	127	128	130	133	138	142	148	154	160	167	173
	90	SC	17.4	16.9	16.4	15.7	15.0	14.0	12.8	11.3	9.3	6.9	4.0
		LIQ. PRESS.	355	352	350	348	347	344	346	347	348	349	350
		SUC. PRESS.	129	130	131	134	139	143	149	155	161	168	174
95	SC	17.9	17.4	16.9	16.3	15.6	10.9	13.3	11.6	9.6	7.0	3.9	
	LIQ. PRESS.	382	379	377	374	372	368	370	371	371	372	373	
	SUC. PRESS.	130	131	132	135	140	144	150	156	162	169	175	
100	SC	18.2	17.9	17.4	16.9	16.1	15.1	13.8	12.1	10.0	7.3	4.1	
	LIQ. PRESS.	411	409	407	404	401	397	398	397	397	397	398	
	SUC. PRESS.	132	133	134	136	141	145	151	157	163	170	176	
105	SC	18.5	18.2	17.9	17.4	16.7	15.8	14.4	12.7	10.5	7.8	4.4	
	LIQ. PRESS.	441	438	436	434	430	427	425	423	422	423	423	
	SUC. PRESS.	134	135	135	138	142	147	152	158	164	171	177	
110	SC	18.5	18.5	18.3	17.9	17.3	16.4	15.1	13.3	11.1	8.4	4.9	
	LIQ. PRESS.	470	469	468	466	462	459	456	453	451	451	450	
	SUC. PRESS.	137	137	137	139	144	148	154	159	165	172	179	
115	SC	18.4	18.5	18.5	18.3	17.7	16.9	15.7	14.0	11.8	9.0	5.6	
	LIQ. PRESS.	500	499	499	498	495	492	487	482	480	479	478	
	SUC. PRESS.	139	139	138	141	145	150	155	161	167	173	180	

- SC = Subcooling at the liquid valve
- Subcooling tolerance is ± 1°F
- Refrigerant pressures are reference values for troubleshooting purposes only
- All temperature measurements are in degrees Fahrenheit.
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***SH(1,2)(B,Q)F4M1SP48K HEATING MODE REFERENCE TABLE
(4.0 TON / SCROLL COMPRESSOR)**

16 SEER			INDOOR DRY-BULB TEMPERATURE (°F)				
			68	70	72	74	76
OUTDOOR DRY-BULB TEMPERATURE (°F)	0	Suc. Press.	41	41	41	41	41
		Disc. Pres.	250	257	264	272	279
		Disc. Temp.	137.5	140.7	144.1	147.4	150.9
	10	Suc. Press.	51	51	52	52	52
		Disc. Pres.	312	324	333	342	346
		Disc. Temp.	152.6	157.3	160.6	164.4	165.6
	20	Suc. Press.	64	64	64	64	64
		Disc. Pres.	316	326	335	344	354
		Disc. Temp.	144.2	147.6	150.7	154.0	157.3
	30	Suc. Press.	78	78	78	78	78
		Disc. Pres.	322	331	340	349	359
		Disc. Temp.	138.6	141.5	144.4	147.4	150.5
	40	Suc. Press.	93	93	93	93	94
		Disc. Pres.	335	344	353	363	373
		Disc. Temp.	137.1	139.8	142.5	145.6	148.4
	50	Suc. Press.	111	112	112	112	112
		Disc. Pres.	337	347	357	367	377
		Disc. Temp.	132.8	135.7	138.5	141.4	144.2
60	Suc. Press.	133	133	133	133	134	
	Disc. Pres.	353	361	370	378	387	
	Disc. Temp.	133.4	135.6	137.9	140.1	142.4	

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 -All pressure measurements are in PSIG.

