

DO NOT MIX REFRIGERANTS!

Use Dew Pressures and Temperatures to Calculate SUPERHEAT
Use Bubble Pressures and Temperatures to Calculate SUBCOOLING
Always Liquid Charge Blends

Red Italics = inches mercury

°F	NU-22B	R-22	R-407C	ONE SHOTC	R-502	R-404A	HOT SHOT2	R-12	R-134a	R-600a	R-290	R-410A
	DEW PSIG	PSIG	DEW PSIG	DEW PSIG	PSIG	DEW PSIG	DEW PSIG	PSIG	PSIG	PSIG	PSIG	DEW PSIG
-30	1.1	4.9	1.6	7.1	8.9	9.6	<i>6.7</i>	<i>5.5</i>	<i>9.8</i>	<i>18.8</i>	5.7	17.7
-28	1.9	5.9	2.5	8.3	10.0	10.8	<i>5.4</i>	<i>4.3</i>	<i>8.7</i>	<i>18.1</i>	6.6	19.3
-26	2.8	6.9	3.5	9.4	11.2	12.0	<i>4.1</i>	<i>3.0</i>	<i>7.5</i>	<i>17.5</i>	7.6	20.9
-24	3.7	8.0	4.4	10.6	12.4	13.3	<i>2.7</i>	<i>1.7</i>	<i>6.3</i>	<i>16.8</i>	8.6	22.6
-22	4.7	9.1	5.4	11.9	13.6	14.6	<i>1.2</i>	<i>0.3</i>	<i>5.0</i>	<i>16.2</i>	9.6	24.4
-20	5.7	10.2	6.5	13.2	14.9	16.0	0.2	0.5	<i>3.7</i>	<i>15.4</i>	10.7	26.2
-18	6.7	11.4	7.6	14.5	16.2	17.4	0.9	1.3	<i>2.3</i>	<i>14.7</i>	11.8	28.1
-16	7.8	12.6	8.7	15.9	17.6	18.9	1.8	2.0	<i>0.8</i>	<i>13.9</i>	13.0	30.0
-14	8.9	13.9	9.9	17.3	19.1	20.4	2.6	2.8	0.4	<i>13.1</i>	14.2	32.0
-12	10.1	15.2	11.1	18.8	20.5	22.0	3.5	3.6	1.1	<i>12.2</i>	15.4	34.1
-10	11.3	16.5	12.3	20.4	22.1	23.6	4.4	4.5	1.9	<i>11.4</i>	16.7	36.3
-8	12.5	17.9	13.7	22.0	23.6	25.3	5.4	5.3	2.8	<i>10.4</i>	18.0	38.5
-6	13.8	19.4	15.0	23.7	25.3	27.0	6.3	6.2	3.6	<i>9.5</i>	19.4	40.8
-4	15.2	20.9	16.4	25.4	26.9	28.8	7.4	7.2	4.6	<i>8.5</i>	20.8	43.2
-2	16.6	22.4	17.9	27.1	28.7	30.7	8.4	8.1	5.5	<i>7.5</i>	22.2	45.7
0	18.0	24.0	19.4	29.0	30.4	32.6	9.6	9.1	6.5	<i>6.4</i>	23.7	48.2
2	19.5	25.7	21.0	30.9	32.3	34.6	10.7	10.1	7.5	<i>5.3</i>	25.2	50.8
4	21.1	27.4	22.6	32.8	34.2	36.6	11.9	11.2	8.5	<i>4.2</i>	26.8	53.5
6	22.7	29.2	24.3	34.8	36.1	38.7	13.1	12.3	9.6	<i>3.0</i>	28.4	56.3
8	24.4	31.0	26.1	36.9	38.2	40.9	14.4	13.4	10.8	<i>1.8</i>	30.1	59.2
10	26.1	32.8	27.9	39.1	40.2	43.1	15.7	14.6	11.9	<i>0.6</i>	31.8	62.2
12	27.8	34.8	29.8	41.3	42.4	45.4	17.1	15.8	13.1	0.4	33.6	65.2
14	29.7	36.8	31.7	43.6	44.5	47.8	18.5	17.0	14.4	1.0	35.4	68.4
16	31.6	38.8	33.7	45.9	46.8	50.2	20.0	18.3	15.7	1.7	37.2	71.6
18	33.5	40.9	35.7	48.3	49.1	52.7	21.5	19.6	17.0	2.4	39.2	74.9
20	35.5	43.1	37.9	50.8	51.5	55.3	23.0	21.0	18.4	3.2	41.1	78.4
22	37.6	45.3	40.1	53.4	54.0	58.0	24.7	22.4	19.9	3.9	43.2	81.9
24	39.7	47.6	42.3	56.0	56.5	60.7	26.3	23.8	21.3	4.7	45.2	85.5
26	41.9	50.0	44.7	58.8	59.1	63.5	28.1	25.3	22.9	5.5	47.4	89.2
28	44.2	52.4	47.1	61.6	61.7	66.4	29.8	26.8	24.5	6.3	49.6	93.1
30	46.6	55.0	49.6	64.4	64.5	69.3	31.7	28.4	26.1	7.2	51.8	97.0
32	49.0	57.5	52.1	67.4	67.3	72.4	33.6	30.0	27.8	8.1	54.1	101
34	51.5	60.2	54.8	70.4	70.1	75.5	35.5	31.7	29.5	9.0	56.5	105
36	54.0	62.9	57.5	73.6	73.1	78.7	37.5	33.4	31.3	9.9	58.9	109
38	56.7	65.7	60.3	76.8	76.1	82.0	39.6	35.1	33.1	10.9	61.4	114
40	59.4	68.6	63.2	80.1	79.2	85.4	41.7	36.9	35.0	11.9	63.9	118
42	62.1	71.5	66.1	83.4	82.4	88.8	43.9	38.7	37.0	12.9	66.6	123
44	65.0	74.5	69.2	86.9	85.6	92.4	46.2	40.6	39.0	14.0	69.2	128
46	67.9	77.6	72.3	90.5	89.0	96.0	48.5	42.6	41.1	15.0	72.0	133
48	71.0	80.8	75.5	94.1	92.4	99.8	50.9	44.6	43.2	16.2	74.8	138
50	74.1	84.1	78.8	97.9	95.9	104	53.3	46.6	45.4	17.3	77.6	143
52	77.3	87.4	82.2	102	99.5	108	55.9	48.7	47.7	18.5	80.6	148
54	80.5	90.8	85.7	106	103	112	58.5	50.9	50.0	19.7	83.6	153
56	83.9	94.4	89.3	110	107	116	61.1	53.1	52.4	20.9	86.7	159
58	87.3	98.0	93.0	114	111	120	63.9	55.3	54.9	22.2	89.8	164
60	90.9	102	96.8	118	115	124	66.7	57.6	57.4	23.5	93.0	170
62	94.5	105	101	122	119	129	69.6	60.0	60.0	24.9	96.3	176
64	98.2	109	105	127	123	133	72.6	62.4	62.7	26.3	99.7	182
66	102	113	109	131	127	138	75.6	64.9	65.4	27.7	103	188
68	106	117	113	136	131	143	78.8	67.5	68.2	29.1	107	195
°F	BUBBLE PSIG	PSIG	BUBBLE PSIG	BUBBLE PSIG	PSIG	BUBBLE PSIG	BUBBLE PSIG	PSIG	PSIG	PSIG	PSIG	BUBBLE PSIG
70	123	121	141	149	136	149	89.3	70.1	71.1	30.6	110	202
72	127	126	145	154	140	154	92.7	72.7	74.1	32.2	114	208
74	132	130	150	159	145	159	96.2	75.5	77.1	33.7	118	215
76	136	134	155	164	150	165	99.8	78.2	80.2	35.3	121	222
78	141	139	161	169	154	170	103	81.1	83.4	37.0	125	229
80	145	144	166	175	159	175	107	84.0	86.7	38.7	129	237
82	150	148	171	180	164	181	111	87.0	90.0	40.4	133	244
84	155	153	177	186	169	187	115	90.0	93.5	42.2	138	252
86	160	158	182	192	175	192	119	93.2	97.0	44.0	142	259
88	165	163	188	198	180	198	123	96.3	101	45.9	146	267
90	170	168	194	204	185	204	127	100	104	47.8	151	275
92	176	174	200	210	191	211	132	103	108	49.7	155	284
94	181	179	206	216	196	217	136	106	112	51.7	160	292
96	187	185	213	223	202	223	141	110	116	53.7	164	301
98	192	190	219	229	208	230	145	113	120	55.8	169	310
100	198	196	225	236	214	237	150	117	124	57.9	174	319
102	204	202	232	243	220	244	155	121	128	60.1	179	328
104	210	208	239	250	226	251	160	124	133	62.3	184	337
106	216	214	246	257	233	258	165	128	137	64.6	189	347
108	223	220	253	264	239	265	170	132	142	66.9	194	356
110	229	226	260	272	246	273	175	136	146	69.3	200	366
112	236	233	268	279	253	280	180	140	151	71.7	205	377
114	242	239	275	287	260	288	186	144	156	74.2	211	387
116	249	246	283	295	267	296	191	149	161	76.7	216	398
118	256	253	291	303	274	304	197	153	166	79.3	222	408
120	263	260	299	311	281	312	203	157	171	82.0	228	419
122	270	267	307	319	288	320	209	162	176	84.6	234	431
124	278	274	315	328	296	329	215	166	182	87.4	240	442
126	285	282	323	336	304	338	221	171	187	90.2	246	454
128	293	289	332	345	311	347	227	176	193	93.0	252	466
130	301	297	341	354	319	356	234	181	199	95.9	259	478

Approximate Weight lbs of Refrigerant per 100'						
ACR Tube O.D. Inches	HOT SHOT-2 (R-417C)		NU-22B (R-422B)		ONE SHOT (R-422C)	
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor
3/8	4.0	0.12	3.7	0.08	3.7	0.08
1/2	7.4	0.23	6.3	0.23	6.2	0.23
5/8	12.2	0.37	10.8	0.40	10.7	0.40
3/4	17.8	0.56	16.6	0.61	16.4	0.61
7/8	25.5	0.60	21.6	0.81	21.4	0.80
1-1/8	42.2	1.34	38.6	1.43	38.2	1.42
1-3/8	64.3	2.04	60.3	2.24	59.7	2.22
1-5/8	88.2	2.88	85.4	3.17	84.6	3.14
2-1/8	158.3	5.02	149.4	5.53	148.0	5.48
2-5/8	244.1	7.75	230.9	8.58	228.6	8.49

Safety Classification
HOT SHOT-2 (417C)
Non Toxic-Non Flammable
NU-22B (422B)
Non Toxic-Non Flammable
ONE SHOT (422C)
Non Toxic-Non Flammable

Approximate Pressure Control Settings - psig							
Evaporator TD	Temperature Range °F	HOT SHOT-2		NU-22B		ONE SHOT	
		OUT	IN	OUT	IN	OUT	IN
15	35 to 38	23	42	36	62	51	80
15	32 to 35	21	39	33	58	47	75
15	26 to 29	16	33	27	50	40	66

Starting Charge %		
Confirm Superheat and Subcooling		
HOT SHOT-2	NU-22B	ONE SHOT-C
R-12..... 80	R-22.....90	R-502..... 95
R-134a..... 90	R-407C90	R-22.....97
R-500..... 100		R-404A ... 109

ICOR Refrigerants Replace		
HOT SHOT-2	NU-22B	ONE SHOT-C
12, 134a, 500, 410A, 401B, 409A, 414A, 416A, 420A, 437A	22, 407C, 417A, 421A, 422D, 427A, 438A	502, 402A/B, 404A , 408A, 422A, 507A, R-22 in Refrigeration



REFRIGERANT RELATED
DIAGNOSTIC SUPPORT

If you have a refrigerant related problem
or questions call or e-mail:

866-433-TECH(8324)
tech2tech@icorinternational.com

Need a technical brochure or manual?
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