



Pressure Temperature Chart

	Minus 10*		Minus 40*		Minus 90*				Minus 50*		Minus 60*				HC32*			
	R600a		R290		R170		R22		R290/R170		R410A		R290/R170*		R32		HC32	
ODP	0		0		0		0.04		0		0		0		0		0	
GWP	3		3		1		1810		3		2088		3		675		3	
°C	kPag	psig	kPag	psig	kPag	psig	kPag	psig	kPag	psig	kPag	psig	kPag	psig	kPag	psig	kPag	psig
-150					-101	-14.6												
-140					-99.5	-14.4												
-130					-96.1	-13.9									-101.2	-14.7	-101.1	-14.7
-120					-88.8	-12.9									-100.9	-14.6	-100.5	-14.6
-110					-74.4	-10.8									-99.9	-14.5	-99.2	-14.4
-100					-49.0	-7.1									-97.5	-14.1	-96.4	-14.0
-90					-7.53	-1.1									-92.5	-13.4	-91.0	-13.2
-80					56.1	8.1									-82.7	-12.0	-81.4	-11.8
-70	-97	-28.5	-77	-22.7	148.6	21.6	-81	-23.9	-67	-19.7	-66	-18	-48	-14	-65.3	-9.5	-65.5	-9.5
-66	-95	-28.1	-71	-20.8	195.4	28.3	-75	-22.2	-59	-17.3	-56	-16.5	-36	-12.4	-55.3	-8.0	-57	-8.3
-62	-93	-27.5	-63	-18.6	248.4	36.0	-68	-20.1	-49	-14.5	-44	-13	-23	-6.7	-43.3	-6.3	-46	-6.7
-58	-91	-26.8	-54	-15.9	308.3	44.7	-59	-17.6	-38	-11.1	-30	-8.7	-7	-2.2	-28.8	-4.2	-34	-4.9
-54	-88	-26	-43	-12.8	375.5	54.5	-49	-14.5	-24	-7.2	-13	-3.4	10	1.5	-11.6	-1.7	-20	-2.9
-50	-85	-25	-31	-9.1	450.5	65.3	-37	-10.9	-9	-2.8	8	1	31	4.4	8.82	1.3	-3.2	-0.5
-46	-80	-23.7	-16	-4.8	534.0	77.4	-22	-6.6	9	1.2	31	5	53	7.8	32.7	4.7	16	2.3
-42	-75	-22.3	0.5	0.1	626.4	90.8	-6	-1.6	29	4.2	59	9	79	11.5	60.6	8.8	38	5.5
-38	-70	-20.5	20	2.9	728.3	105.6	14	2	52	7.5	91	13	108	15.7	92.8	13.5	63	9.1
-34	-63	-18.5	42	6	840.3	121.9	37	5.3	78	11	127	19	141	20.5	129.8	18.8	91	13
-30	-55	-16.2	67	9.6	963.0	139.7	63	9.1	107	16	169	25	177	25.7	172.1	25.0	123	18
-28	-50	-14.8	80	12	1097	159.1	77	11	123	18	192	28	197	28.6	195.4	28.3	140	20
-26	-45	-13.4	95	14	1097	159.1	92	13	140	20	216	31	218	31.6	220.2	31.9	159	23
-24	-40	-11.9	110	16	1168	169.4	108	16	158	23	242	35	239	34.7	246.6	35.8	180	26
-22	-35	-10.3	126	18	1243	180.2	126	18	177	26	270	39	262	38	274.7	39.8	199	29
-20	-29	-8.5	143	21	1320	191.5	144	21	197	29	299	43	286	41.5	304.4	44.2	220	32
-18	-23	-6.7	161	23	1401	203.2	163	24	217	32	330	48	311	45.1	335.96	48.7	240	35
-16	-16	-4.7	180	26	1485	215.4	184	27	240	35	363	53	337	48.9	369.34	53.6	267	39
-14	-9	-2.5	200	29	1572	228.0	206	30	263	38	398	58	365	52.9	404.65	58.7	293	42
-12	-1	-0.3	222	32	1663	241.2	229	33	287	42	435	63	394	57.1	441.94	64.1	319	46
-10	7	1	244	35	1758	254.9	253	37	313	45	473	69	424	61.5	481.31	69.8	347	50
-8	16	2.3	267	39	1856	269.1	279	40	339	49	514	75	455	66.1	522.81	75.8	376	55
-6	25	3.6	292	42	1957	283.9	306	44	367	53	557	81	488	70.8	566.53	82.2	407	59
-4	35	5	318	46	2063	299.2	335	49	397	58	602	87	523	75.8	612.55	88.8	439	64
-2	45	6.5	345	50	2172	315.0	365	53	427	62	650	94	558	81	660.94	95.9	472	68
0	56	8.1	373	54	2285	331.5	397	58	460	67	699	101	595	86.4	711.78	103.2	507	74
2	67	9.7	403	58	2403	348.5	430	62	493	72	752	109	634	92	765.14	111.0	544	79
4	79	11	434	63	2525	366.1	465	67	528	77	807	117	675	97.8	821.13	119.1	582	84
6	92	13	466	68	2651	384.4	501	73	565	82	864	125	716	103.9	879.8	127.6	622	90
8	105	15	500	73	2781	403.3	540	78	603	87	924	134	760	110.2	941.26	136.5	663	96
10	119	17	535	78	2916	422.9	580	84	642	93	987	143	805	116.8	1005.6	145.9	707	103
12	134	19	572	83	3056	443.2	622	90	684	99	1053	153	852	123.6	1072.9	155.6	752	109
14	150	22	610	89	3200	464.1	665	97	727	105	1122	163	901	130.7	1143.2	165.8	799	116
16	166	24	650	94	3350	485.8	711	103	771	112	1193	173	951	138	1216.6	176.5	847	123
18	183	27	692	100	3504	508.2	759	110	818	119	1268	184	1004	145.6	1293.3	187.6	898	130
20	201	29	735	107	3664	531.4	809	117	866	126	1346	195	1058	153.4	1373.2	199.2	950	138
22	220	32	780	113	3830	555.5	861	125	916	133	1428	207	1114	161.6	1456.6	211.3	1005	146
24	239	35	827	120	4001	580.3	915	133	968	140	1512	219	1172	170	1543.5	223.9	1062	154
26	260	38	875	127	4179	606.0	971	141	1022	148	1601	232	1232	178.7	1634.0	237	1120	162
28	281	41	926	134	4363	632.7	1030	149	1078	156	1693	245	1294	187.7	1728.2	251	1181	171
30	303	44	978	142	4554	660.5	1091	158	1136	165	1788	259	1358	197	1826.2	265	1244	180
32	327	47	1032	150	4753	689.4	1154	167	1196	173	1887	274	1425	206.6	1928.1	280	1309	190
34	351	51	1088	158			1220	177	1258	182	1991	289	1493	216.5	2034.0	295	1377	200
36	376	55	1146	166			1288	187	1322	192	2098	304	1564	226.8	2144.1	311	1447	210
38	403	58	1206	175			1359	197	1389	201	2209	320	1636	237.3	2258.3	328	1519	220
40	430	62	1268	184			1432	208	1457	211	2324	337	1712	248.2	2377.0	345	1594	231
42	458	66	1332	193			1508	219	1528	222	2444	354	1789	259.5	2500.1	363	1671	242
44	488	71	1399	203			1587	230	1602	232	2568	373	1869	271	2627.8	381	1751	254
46	519	75	1468	213			1669	242	1677	243	2697	391	1951	283	2760.3	400	1833	266
48	551	80	1539	223			1754	254	1755	255	2831	411	2036	295.3	2897.6	420	1918	278
50	584	85	1612	234			1841	267	1836	266	2969	431	2123	307.9	3039.9	441	2006	291
52	618	90	1688	245			1932	280	1919	278	3113	451	2213	320.9	3187.4	462	2096	304
54	653	95	1766	256			2026	294	2005	291	3261	473	2305	334.3	3340.1	484	2190	318
56	690	100	1847	268			2123	308	2094	304	3415	495	2400	348.1	3498.4	507	2286	332
58	728	106	1930	280			2223	322	2185	317	3575	519	2497	362.2	3662.2	531	2385	346
60	768	111	2015	292			2326	337	2279	331	3741	543	2598	376.8	3831.9	556	2487	361
70	986	143	2485	361					2795	405	4664	677	3142	456	4775.5	693	3046	442
80	1243	180	3031	440					3392	492			3760	545	5906.0	857	3693	536
90	1541	223	3663	531					4088	593			4381	635			4444	645
100	1885	273																
110	2281	331																
120	2735	397																
130	3257	472																
Critical Temp	135		97		32		96		94		70		90		78		90	

* Please note that on small percentage of the recent split systems which are pressure rather than temperature driven, performance of Minus 60 versus the original refrigerant must be assessed on the case-by-case basis. Minus 60 operates at pressures lower than R410a and similar synthetic refrigerant blends and therefore its pT curve is not a close match for these refrigerants.