



Forane[®] 404A

(44.0% R-125, 52.0% R-143a, 4.0% R-134a by weight)

Thermodynamic Properties (Saturation) - ENG

This data was generated using the NIST REFPROP Database

(Lemmon, E.W., Huber, M.L., McLinden, M.O. NIST Standard Reference Database 23: Reference Fluid Thermodynamic and Transport Properties-REFPROP, Version 9.0, National Institute of Standards and Technology, Standard Reference Data Program, Gaithersburg, 2010)



Thermodynamic Properties of R-404A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft ³ /lb)		Density (lb/ft ³)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
-150	0.378	0.333	0.01090	101.74	91.73	0.00983	31.00	131.86	0.10034	0.42784	-150
-149	0.397	0.352	0.01092	96.78	91.62	0.01033	31.30	132.00	0.10129	0.42721	-149
-148	0.418	0.371	0.01093	92.10	91.52	0.01086	31.59	132.14	0.10224	0.42660	-148
-147	0.440	0.390	0.01094	87.68	91.41	0.01141	31.89	132.28	0.10318	0.42599	-147
-146	0.462	0.411	0.01095	83.50	91.31	0.01198	32.18	132.42	0.10412	0.42539	-146
-145	0.486	0.433	0.01097	79.56	91.20	0.01257	32.47	132.56	0.10506	0.42480	-145
-144	0.510	0.456	0.01098	75.83	91.10	0.01319	32.77	132.70	0.10599	0.42422	-144
-143	0.536	0.479	0.01099	72.31	91.00	0.01383	33.06	132.85	0.10691	0.42364	-143
-142	0.563	0.504	0.01100	68.98	90.89	0.01450	33.35	132.99	0.10784	0.42307	-142
-141	0.591	0.530	0.01102	65.82	90.79	0.01519	33.65	133.13	0.10876	0.42251	-141
-140	0.619	0.556	0.01103	62.83	90.69	0.01592	33.94	133.27	0.10967	0.42196	-140
-139	0.650	0.584	0.01104	60.00	90.58	0.01667	34.23	133.41	0.11059	0.42141	-139
-138	0.681	0.613	0.01105	57.32	90.48	0.01745	34.52	133.56	0.11149	0.42087	-138
-137	0.714	0.644	0.01107	54.78	90.38	0.01825	34.81	133.70	0.11240	0.42034	-137
-136	0.747	0.675	0.01108	52.37	90.27	0.01909	35.11	133.84	0.11330	0.41981	-136
-135	0.783	0.708	0.01109	50.09	90.17	0.01997	35.40	133.99	0.11420	0.41929	-135
-134	0.819	0.742	0.01110	47.92	90.07	0.02087	35.69	134.13	0.11510	0.41878	-134
-133	0.857	0.778	0.01112	45.86	89.97	0.02181	35.98	134.27	0.11599	0.41827	-133
-132	0.897	0.815	0.01113	43.90	89.86	0.02278	36.27	134.42	0.11688	0.41777	-132
-131	0.938	0.853	0.01114	42.05	89.76	0.02378	36.56	134.56	0.11777	0.41727	-131
-130	0.981	0.893	0.01115	40.28	89.66	0.02483	36.85	134.70	0.11865	0.41679	-130
-129	1.025	0.935	0.01117	38.60	89.56	0.02591	37.14	134.85	0.11953	0.41631	-129
-128	1.071	0.978	0.01118	37.00	89.45	0.02703	37.43	134.99	0.12041	0.41583	-128
-127	1.118	1.023	0.01119	35.48	89.35	0.02818	37.72	135.13	0.12128	0.41536	-127
-126	1.168	1.069	0.01121	34.04	89.25	0.02938	38.02	135.28	0.12215	0.41490	-126
-125	1.219	1.117	0.01122	32.66	89.15	0.03062	38.31	135.42	0.12302	0.41444	-125
-124	1.272	1.167	0.01123	31.35	89.05	0.03190	38.60	135.57	0.12389	0.41399	-124
-123	1.327	1.219	0.01124	30.10	88.94	0.03322	38.89	135.71	0.12475	0.41354	-123
-122	1.384	1.272	0.01126	28.91	88.84	0.03459	39.18	135.86	0.12561	0.41310	-122
-121	1.442	1.328	0.01127	27.77	88.74	0.03601	39.47	136.00	0.12647	0.41267	-121
-120	1.503	1.385	0.01128	26.69	88.64	0.03747	39.76	136.15	0.12733	0.41224	-120
-119	1.566	1.445	0.01130	25.66	88.54	0.03898	40.05	136.29	0.12818	0.41182	-119
-118	1.631	1.507	0.01131	24.67	88.44	0.04053	40.34	136.44	0.12903	0.41140	-118
-117	1.699	1.571	0.01132	23.73	88.33	0.04214	40.63	136.58	0.12988	0.41099	-117
-116	1.769	1.637	0.01133	22.83	88.23	0.04380	40.92	136.73	0.13072	0.41058	-116
-115	1.841	1.705	0.01135	21.97	88.13	0.04551	41.21	136.87	0.13156	0.41018	-115
-114	1.915	1.776	0.01136	21.15	88.03	0.04728	41.50	137.02	0.13240	0.40978	-114
-113	1.992	1.849	0.01137	20.37	87.93	0.04910	41.79	137.16	0.13324	0.40939	-113
-112	2.072	1.925	0.01139	19.62	87.83	0.05098	42.08	137.31	0.13408	0.40900	-112
-111	2.154	2.003	0.01140	18.90	87.73	0.05291	42.37	137.45	0.13491	0.40862	-111
-110	2.238	2.083	0.01141	18.21	87.62	0.05490	42.66	137.60	0.13574	0.40824	-110
-109	2.326	2.167	0.01143	17.56	87.52	0.05696	42.95	137.74	0.13657	0.40787	-109
-108	2.416	2.253	0.01144	16.93	87.42	0.05907	43.24	137.89	0.13739	0.40750	-108
-107	2.509	2.342	0.01145	16.33	87.32	0.06125	43.53	138.04	0.13822	0.40714	-107
-106	2.605	2.433	0.01147	15.75	87.22	0.06349	43.82	138.18	0.13904	0.40678	-106
-105	2.704	2.528	0.01148	15.20	87.12	0.06580	44.11	138.33	0.13986	0.40643	-105
-104	2.806	2.626	0.01149	14.67	87.02	0.06817	44.40	138.47	0.14068	0.40608	-104
-103	2.911	2.726	0.01151	14.16	86.91	0.07061	44.69	138.62	0.14149	0.40574	-103
-102	3.020	2.830	0.01152	13.68	86.81	0.07312	44.98	138.77	0.14230	0.40540	-102
-101	3.131	2.937	0.01153	13.21	86.71	0.07571	45.27	138.91	0.14312	0.40506	-101
-100	3.246	3.047	0.01155	12.76	86.61	0.07836	45.56	139.06	0.14392	0.40473	-100
-99	3.365	3.161	0.01156	12.33	86.51	0.08109	45.85	139.20	0.14473	0.40441	-99
-98	3.487	3.278	0.01157	11.92	86.41	0.08390	46.14	139.35	0.14554	0.40408	-98

Thermodynamic Properties of R-404A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft ³ /lb)		Density (lb/ft ³)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
-97	3.612	3.398	0.01159	11.52	86.30	0.08678	46.44	139.50	0.14634	0.40377	-97
-96	3.741	3.523	0.01160	11.14	86.20	0.08974	46.73	139.64	0.14714	0.40345	-96
-95	3.874	3.650	0.01162	10.78	86.10	0.09278	47.02	139.79	0.14794	0.40314	-95
-94	4.011	3.782	0.01163	10.43	86.00	0.09590	47.31	139.94	0.14874	0.40284	-94
-93	4.151	3.917	0.01164	10.09	85.90	0.09911	47.60	140.08	0.14953	0.40253	-93
-92	4.296	4.056	0.01166	9.766	85.79	0.10240	47.89	140.23	0.15032	0.40224	-92
-91	4.445	4.199	0.01167	9.454	85.69	0.10578	48.18	140.38	0.15112	0.40194	-91
-90	4.597	4.347	0.01168	9.154	85.59	0.10924	48.48	140.52	0.15191	0.40165	-90
-89	4.754	4.498	0.01170	8.866	85.49	0.11280	48.77	140.67	0.15269	0.40137	-89
-88	4.916	4.654	0.01171	8.588	85.38	0.11644	49.06	140.82	0.15348	0.40108	-88
-87	5.081	4.814	0.01173	8.321	85.28	0.12018	49.35	140.96	0.15426	0.40081	-87
-86	5.251	4.978	0.01174	8.063	85.18	0.12402	49.65	141.11	0.15505	0.40053	-86
-85	5.426	5.147	0.01175	7.816	85.08	0.12795	49.94	141.26	0.15583	0.40026	-85
-84	5.606	5.320	0.01177	7.577	84.97	0.13198	50.23	141.40	0.15661	0.39999	-84
-83	5.790	5.498	0.01178	7.347	84.87	0.13611	50.52	141.55	0.15738	0.39973	-83
-82	5.979	5.681	0.01180	7.126	84.77	0.14034	50.82	141.70	0.15816	0.39947	-82
-81	6.173	5.869	0.01181	6.912	84.67	0.14467	51.11	141.84	0.15893	0.39921	-81
-80	6.371	6.061	0.01183	6.707	84.56	0.14911	51.40	141.99	0.15971	0.39895	-80
-79	6.575	6.259	0.01184	6.508	84.46	0.15366	51.70	142.13	0.16048	0.39870	-79
-78	6.785	6.462	0.01185	6.317	84.36	0.15831	51.99	142.28	0.16125	0.39846	-78
-77	6.999	6.670	0.01187	6.132	84.25	0.16308	52.28	142.43	0.16201	0.39821	-77
-76	7.219	6.883	0.01188	5.954	84.15	0.16796	52.58	142.57	0.16278	0.39797	-76
-75	7.445	7.102	0.01190	5.782	84.05	0.17295	52.87	142.72	0.16354	0.39773	-75
-74	7.676	7.326	0.01191	5.616	83.94	0.17806	53.17	142.87	0.16431	0.39750	-74
-73	7.912	7.556	0.01193	5.456	83.84	0.18329	53.46	143.01	0.16507	0.39727	-73
-72	8.155	7.792	0.01194	5.301	83.74	0.18864	53.76	143.16	0.16583	0.39704	-72
-71	8.403	8.033	0.01196	5.152	83.63	0.19411	54.05	143.31	0.16659	0.39681	-71
-70	8.658	8.280	0.01197	5.007	83.53	0.19970	54.35	143.45	0.16734	0.39659	-70
-69	8.918	8.534	0.01199	4.868	83.42	0.20543	54.64	143.60	0.16810	0.39637	-69
-68	9.185	8.793	0.01200	4.733	83.32	0.21128	54.94	143.74	0.16885	0.39615	-68
-67	9.458	9.059	0.01202	4.603	83.22	0.21726	55.23	143.89	0.16960	0.39594	-67
-66	9.738	9.331	0.01203	4.477	83.11	0.22337	55.53	144.03	0.17036	0.39573	-66
-65	10.02	9.610	0.01205	4.355	83.01	0.22962	55.82	144.18	0.17111	0.39552	-65
-64	10.32	9.895	0.01206	4.237	82.90	0.23600	56.12	144.33	0.17185	0.39532	-64
-63	10.62	10.19	0.01208	4.123	82.80	0.24253	56.42	144.47	0.17260	0.39512	-63
-62	10.92	10.49	0.01209	4.013	82.69	0.24919	56.71	144.62	0.17335	0.39492	-62
-61	11.24	10.79	0.01211	3.906	82.59	0.25600	57.01	144.76	0.17409	0.39472	-61
-60	11.56	11.10	0.01212	3.803	82.48	0.26295	57.31	144.91	0.17483	0.39452	-60
-59	11.88	11.42	0.01214	3.703	82.38	0.27005	57.61	145.05	0.17558	0.39433	-59
-58	12.22	11.75	0.01216	3.606	82.27	0.27730	57.90	145.20	0.17632	0.39414	-58
-57	12.56	12.08	0.01217	3.513	82.16	0.28470	58.20	145.34	0.17706	0.39396	-57
-56	12.91	12.42	0.01219	3.422	82.06	0.29225	58.50	145.49	0.17779	0.39377	-56
-55	13.27	12.77	0.01220	3.334	81.95	0.29996	58.80	145.63	0.17853	0.39359	-55
-54	13.63	13.13	0.01222	3.249	81.85	0.30783	59.10	145.78	0.17926	0.39341	-54
-53	14.00	13.50	0.01223	3.166	81.74	0.31586	59.40	145.92	0.18000	0.39324	-53
-52	14.39	13.87	0.01225	3.086	81.63	0.32406	59.70	146.07	0.18073	0.39306	-52
-51	14.77	14.25	0.01227	3.008	81.53	0.33242	59.99	146.21	0.18146	0.39289	-51
-50	15.17	14.64	0.01228	2.933	81.42	0.34095	60.29	146.36	0.18219	0.39272	-50
-49	15.58	15.03	0.01230	2.860	81.31	0.34965	60.59	146.50	0.18292	0.39255	-49
-48	15.99	15.44	0.01232	2.789	81.21	0.35852	60.89	146.64	0.18365	0.39239	-48
-47	16.41	15.85	0.01233	2.721	81.10	0.36757	61.20	146.79	0.18438	0.39222	-47
-46	16.85	16.27	0.01235	2.654	80.99	0.37679	61.50	146.93	0.18510	0.39206	-46
-45	17.29	16.71	0.01236	2.589	80.88	0.38620	61.80	147.08	0.18583	0.39191	-45

Thermodynamic Properties of R-404A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft ³ /lb)		Density (lb/ft ³)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
-44	17.73	17.15	0.01238	2.527	80.77	0.39579	62.10	147.22	0.18655	0.39175	-44
-43	18.19	17.59	0.01240	2.466	80.67	0.40556	62.40	147.36	0.18727	0.39159	-43
-42	18.66	18.05	0.01241	2.407	80.56	0.41552	62.70	147.51	0.18799	0.39144	-42
-41	19.14	18.52	0.01243	2.349	80.45	0.42568	63.00	147.65	0.18871	0.39129	-41
-40	19.62	19.00	0.01245	2.293	80.34	0.43602	63.31	147.79	0.18943	0.39114	-40
-39	20.12	19.48	0.01246	2.239	80.23	0.44657	63.61	147.93	0.19015	0.39100	-39
-38	20.62	19.98	0.01248	2.187	80.12	0.45731	63.91	148.08	0.19087	0.39085	-38
-37	21.14	20.48	0.01250	2.136	80.01	0.46825	64.22	148.22	0.19158	0.39071	-37
-36	21.66	21.00	0.01252	2.086	79.90	0.47940	64.52	148.36	0.19230	0.39057	-36
-35	22.20	21.53	0.01253	2.038	79.79	0.49075	64.82	148.50	0.19301	0.39043	-35
-34	22.74	22.06	0.01255	1.991	79.68	0.50232	65.13	148.65	0.19372	0.39030	-34
-33	23.30	22.61	0.01257	1.945	79.57	0.51409	65.43	148.79	0.19444	0.39016	-33
-32	23.87	23.16	0.01258	1.901	79.46	0.52609	65.74	148.93	0.19515	0.39003	-32
-31	24.44	23.73	0.01260	1.858	79.35	0.53830	66.04	149.07	0.19586	0.38990	-31
-30	25.03	24.31	0.01262	1.816	79.24	0.55073	66.35	149.21	0.19657	0.38977	-30
-29	25.63	24.90	0.01264	1.775	79.13	0.56338	66.65	149.35	0.19727	0.38964	-29
-28	26.24	25.50	0.01266	1.735	79.02	0.57627	66.96	149.49	0.19798	0.38952	-28
-27	26.86	26.11	0.01267	1.697	78.91	0.58938	67.27	149.63	0.19869	0.38939	-27
-26	27.49	26.73	0.01269	1.659	78.80	0.60273	67.57	149.77	0.19939	0.38927	-26
-25	28.14	27.36	0.01271	1.623	78.69	0.61631	67.88	149.91	0.20009	0.38915	-25
-24	28.79	28.01	0.01273	1.587	78.57	0.63013	68.19	150.05	0.20080	0.38903	-24
-23	29.46	28.66	0.01275	1.552	78.46	0.64420	68.50	150.19	0.20150	0.38891	-23
-22	30.14	29.33	0.01276	1.519	78.35	0.65851	68.80	150.33	0.20220	0.38880	-22
-21	30.83	30.01	0.01278	1.486	78.24	0.67307	69.11	150.47	0.20290	0.38868	-21
-20	31.53	30.70	0.01280	1.454	78.12	0.68788	69.42	150.61	0.20360	0.38857	-20
-19	32.24	31.41	0.01282	1.423	78.01	0.70294	69.73	150.75	0.20430	0.38846	-19
-18	32.97	32.13	0.01284	1.392	77.90	0.71827	70.04	150.89	0.20500	0.38835	-18
-17	33.71	32.85	0.01286	1.363	77.78	0.73386	70.35	151.03	0.20569	0.38824	-17
-16	34.47	33.60	0.01288	1.334	77.67	0.74971	70.66	151.16	0.20639	0.38813	-16
-15	35.23	34.35	0.01289	1.306	77.55	0.76583	70.97	151.30	0.20709	0.38803	-15
-14	36.01	35.12	0.01291	1.278	77.44	0.78223	71.28	151.44	0.20778	0.38793	-14
-13	36.80	35.90	0.01293	1.252	77.32	0.79890	71.59	151.57	0.20847	0.38782	-13
-12	37.61	36.69	0.01295	1.226	77.21	0.81585	71.90	151.71	0.20917	0.38772	-12
-11	38.42	37.50	0.01297	1.200	77.09	0.83308	72.22	151.85	0.20986	0.38762	-11
-10	39.26	38.32	0.01299	1.176	76.98	0.85060	72.53	151.98	0.21055	0.38752	-10
-9	40.10	39.16	0.01301	1.152	76.86	0.86841	72.84	152.12	0.21124	0.38742	-9
-8	40.96	40.00	0.01303	1.128	76.74	0.88651	73.16	152.26	0.21193	0.38733	-8
-7	41.84	40.87	0.01305	1.105	76.63	0.90492	73.47	152.39	0.21262	0.38723	-7
-6	42.72	41.74	0.01307	1.083	76.51	0.92362	73.78	152.53	0.21331	0.38714	-6
-5	43.63	42.63	0.01309	1.061	76.39	0.94263	74.10	152.66	0.21399	0.38705	-5
-4	44.54	43.54	0.01311	1.040	76.28	0.96195	74.41	152.80	0.21468	0.38696	-4
-3	45.47	44.46	0.01313	1.019	76.16	0.98158	74.73	152.93	0.21537	0.38687	-3
-2	46.42	45.39	0.01315	0.998	76.04	1.0015	75.04	153.06	0.21605	0.38678	-2
-1	47.38	46.34	0.01317	0.979	75.92	1.0218	75.36	153.20	0.21674	0.38669	-1
0	48.36	47.31	0.01319	0.959	75.80	1.0424	75.68	153.33	0.21742	0.38660	0
1	49.35	48.29	0.01321	0.940	75.68	1.0633	75.99	153.46	0.21810	0.38652	1
2	50.35	49.28	0.01323	0.922	75.56	1.0846	76.31	153.59	0.21879	0.38643	2
3	51.38	50.29	0.01326	0.904	75.44	1.1062	76.63	153.73	0.21947	0.38635	3
4	52.41	51.32	0.01328	0.886	75.32	1.1281	76.95	153.86	0.22015	0.38626	4
5	53.47	52.36	0.01330	0.869	75.20	1.1504	77.26	153.99	0.22083	0.38618	5
6	54.54	53.42	0.01332	0.852	75.08	1.1731	77.58	154.12	0.22151	0.38610	6
7	55.62	54.49	0.01334	0.836	74.96	1.1961	77.90	154.25	0.22219	0.38602	7
8	56.73	55.58	0.01336	0.820	74.84	1.2194	78.22	154.38	0.22287	0.38594	8

Thermodynamic Properties of R-404A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft ³ /lb)		Density (lb/ft ³)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
9	57.84	56.69	0.01338	0.804	74.72	1.2432	78.54	154.51	0.22355	0.38586	9
10	58.98	57.81	0.01341	0.789	74.59	1.2673	78.86	154.64	0.22422	0.38579	10
11	60.13	58.95	0.01343	0.774	74.47	1.2917	79.18	154.77	0.22490	0.38571	11
12	61.30	60.11	0.01345	0.760	74.35	1.3166	79.51	154.90	0.22558	0.38564	12
13	62.49	61.29	0.01347	0.745	74.22	1.3418	79.83	155.03	0.22625	0.38556	13
14	63.69	62.48	0.01350	0.731	74.10	1.3675	80.15	155.16	0.22693	0.38549	14
15	64.91	63.69	0.01352	0.718	73.97	1.3935	80.47	155.28	0.22760	0.38541	15
16	66.15	64.91	0.01354	0.704	73.85	1.4199	80.80	155.41	0.22828	0.38534	16
17	67.41	66.16	0.01356	0.691	73.72	1.4468	81.12	155.54	0.22895	0.38527	17
18	68.68	67.42	0.01359	0.678	73.60	1.4740	81.45	155.66	0.22963	0.38520	18
19	69.97	68.70	0.01361	0.666	73.47	1.5017	81.77	155.79	0.23030	0.38513	19
20	71.28	70.00	0.01363	0.654	73.35	1.5297	82.10	155.91	0.23097	0.38506	20
21	72.61	71.32	0.01366	0.642	73.22	1.5583	82.42	156.04	0.23164	0.38499	21
22	73.96	72.65	0.01368	0.630	73.09	1.5872	82.75	156.16	0.23231	0.38492	22
23	75.33	74.01	0.01371	0.619	72.96	1.6166	83.08	156.29	0.23299	0.38485	23
24	76.71	75.38	0.01373	0.607	72.84	1.6464	83.40	156.41	0.23366	0.38479	24
25	78.12	76.77	0.01375	0.596	72.71	1.6767	83.73	156.53	0.23433	0.38472	25
26	79.54	78.18	0.01378	0.586	72.58	1.7075	84.06	156.66	0.23500	0.38465	26
27	80.99	79.62	0.01380	0.575	72.45	1.7387	84.39	156.78	0.23567	0.38459	27
28	82.45	81.07	0.01383	0.565	72.32	1.7703	84.72	156.90	0.23633	0.38452	28
29	83.93	82.54	0.01385	0.555	72.19	1.8025	85.05	157.02	0.23700	0.38446	29
30	85.44	84.03	0.01388	0.545	72.06	1.8351	85.38	157.14	0.23767	0.38439	30
31	86.96	85.54	0.01390	0.535	71.93	1.8683	85.71	157.26	0.23834	0.38433	31
32	88.50	87.07	0.01393	0.526	71.79	1.9019	86.04	157.38	0.23901	0.38427	32
33	90.07	88.62	0.01396	0.517	71.66	1.9360	86.37	157.50	0.23967	0.38420	33
34	91.65	90.20	0.01398	0.507	71.53	1.9707	86.71	157.62	0.24034	0.38414	34
35	93.26	91.79	0.01401	0.499	71.39	2.0058	87.04	157.73	0.24101	0.38408	35
36	94.88	93.40	0.01403	0.490	71.26	2.0415	87.38	157.85	0.24167	0.38402	36
37	96.53	95.04	0.01406	0.481	71.13	2.0778	87.71	157.97	0.24234	0.38395	37
38	98.20	96.70	0.01409	0.473	70.99	2.1145	88.05	158.08	0.24300	0.38389	38
39	99.89	98.37	0.01411	0.465	70.85	2.1518	88.38	158.20	0.24367	0.38383	39
40	101.6	100.1	0.01414	0.457	70.72	2.1897	88.72	158.31	0.24433	0.38377	40
41	103.3	101.8	0.01417	0.449	70.58	2.2282	89.05	158.43	0.24500	0.38371	41
42	105.1	103.5	0.01420	0.441	70.44	2.2672	89.39	158.54	0.24566	0.38365	42
43	106.9	105.3	0.01422	0.434	70.31	2.3068	89.73	158.65	0.24633	0.38359	43
44	108.7	107.1	0.01425	0.426	70.17	2.3470	90.07	158.76	0.24699	0.38353	44
45	110.5	108.9	0.01428	0.419	70.03	2.3877	90.41	158.88	0.24765	0.38347	45
46	112.3	110.7	0.01431	0.412	69.89	2.4291	90.75	158.99	0.24832	0.38341	46
47	114.2	112.6	0.01434	0.405	69.75	2.4712	91.09	159.10	0.24898	0.38335	47
48	116.1	114.5	0.01437	0.398	69.61	2.5138	91.43	159.21	0.24965	0.38329	48
49	118.0	116.4	0.01440	0.391	69.46	2.5571	91.77	159.31	0.25031	0.38323	49
50	120.0	118.3	0.01443	0.384	69.32	2.6010	92.12	159.42	0.25097	0.38317	50
51	121.9	120.3	0.01446	0.378	69.18	2.6456	92.46	159.53	0.25163	0.38310	51
52	123.9	122.2	0.01449	0.372	69.03	2.6908	92.80	159.63	0.25230	0.38304	52
53	125.9	124.2	0.01452	0.365	68.89	2.7368	93.15	159.74	0.25296	0.38298	53
54	128.0	126.3	0.01455	0.359	68.74	2.7834	93.49	159.84	0.25362	0.38292	54
55	130.0	128.3	0.01458	0.353	68.60	2.8307	93.84	159.95	0.25429	0.38286	55
56	132.1	130.4	0.01461	0.347	68.45	2.8787	94.19	160.05	0.25495	0.38280	56
57	134.2	132.5	0.01464	0.342	68.30	2.9275	94.54	160.15	0.25561	0.38274	57
58	136.4	134.6	0.01467	0.336	68.16	2.9770	94.88	160.25	0.25627	0.38268	58
59	138.5	136.8	0.01470	0.330	68.01	3.0272	95.23	160.36	0.25694	0.38261	59
60	140.7	138.9	0.01474	0.325	67.86	3.0782	95.58	160.45	0.25760	0.38255	60
61	142.9	141.1	0.01477	0.319	67.71	3.1300	95.93	160.55	0.25826	0.38249	61

Thermodynamic Properties of R-404A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft ³ /lb)		Density (lb/ft ³)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
62	145.2	143.4	0.01480	0.314	67.56	3.1825	96.28	160.65	0.25892	0.38243	62
63	147.4	145.6	0.01484	0.309	67.40	3.2359	96.64	160.75	0.25959	0.38236	63
64	149.7	147.9	0.01487	0.304	67.25	3.2900	96.99	160.84	0.26025	0.38230	64
65	152.0	150.2	0.01490	0.299	67.10	3.3450	97.34	160.94	0.26091	0.38223	65
66	154.4	152.5	0.01494	0.294	66.94	3.4009	97.70	161.03	0.26158	0.38217	66
67	156.7	154.9	0.01497	0.289	66.79	3.4575	98.05	161.13	0.26224	0.38210	67
68	159.1	157.3	0.01501	0.284	66.63	3.5151	98.41	161.22	0.26290	0.38204	68
69	161.6	159.7	0.01504	0.280	66.47	3.5735	98.77	161.31	0.26357	0.38197	69
70	164.0	162.1	0.01508	0.275	66.31	3.6329	99.13	161.40	0.26423	0.38190	70
71	166.5	164.6	0.01512	0.271	66.15	3.6931	99.49	161.49	0.26489	0.38184	71
72	169.0	167.1	0.01515	0.266	65.99	3.7543	99.84	161.58	0.26556	0.38177	72
73	171.5	169.6	0.01519	0.262	65.83	3.8164	100.21	161.66	0.26622	0.38170	73
74	174.1	172.2	0.01523	0.258	65.67	3.8796	100.57	161.75	0.26689	0.38163	74
75	176.7	174.8	0.01527	0.254	65.51	3.9437	100.93	161.83	0.26755	0.38156	75
76	179.3	177.4	0.01530	0.249	65.34	4.0088	101.29	161.92	0.26822	0.38149	76
77	182.0	180.0	0.01534	0.245	65.18	4.0749	101.66	162.00	0.26888	0.38141	77
78	184.6	182.7	0.01538	0.241	65.01	4.1421	102.02	162.08	0.26955	0.38134	78
79	187.4	185.4	0.01542	0.238	64.84	4.2103	102.39	162.16	0.27022	0.38127	79
80	190.1	188.1	0.01546	0.234	64.68	4.2797	102.76	162.24	0.27088	0.38119	80
81	192.9	190.9	0.01550	0.230	64.51	4.3501	103.13	162.31	0.27155	0.38111	81
82	195.7	193.7	0.01554	0.226	64.34	4.4217	103.50	162.39	0.27222	0.38104	82
83	198.5	196.5	0.01559	0.223	64.16	4.4945	103.87	162.46	0.27289	0.38096	83
84	201.4	199.3	0.01563	0.219	63.99	4.5684	104.24	162.54	0.27356	0.38088	84
85	204.2	202.2	0.01567	0.215	63.82	4.6435	104.61	162.61	0.27423	0.38080	85
86	207.2	205.1	0.01571	0.212	63.64	4.7199	104.98	162.68	0.27490	0.38071	86
87	210.1	208.1	0.01576	0.208	63.46	4.7975	105.36	162.75	0.27557	0.38063	87
88	213.1	211.1	0.01580	0.205	63.28	4.8764	105.73	162.82	0.27624	0.38055	88
89	216.1	214.1	0.01585	0.202	63.10	4.9566	106.11	162.88	0.27691	0.38046	89
90	219.2	217.1	0.01589	0.198	62.92	5.0382	106.49	162.95	0.27758	0.38037	90
91	222.3	220.2	0.01594	0.195	62.74	5.1211	106.87	163.01	0.27826	0.38028	91
92	225.4	223.3	0.01599	0.192	62.56	5.2055	107.25	163.07	0.27893	0.38019	92
93	228.5	226.4	0.01603	0.189	62.37	5.2912	107.63	163.13	0.27961	0.38010	93
94	231.7	229.6	0.01608	0.186	62.18	5.3785	108.02	163.19	0.28028	0.38000	94
95	234.9	232.8	0.01613	0.183	62.00	5.4673	108.40	163.24	0.28096	0.37991	95
96	238.1	236.0	0.01618	0.180	61.81	5.5576	108.79	163.30	0.28164	0.37981	96
97	241.4	239.3	0.01623	0.177	61.61	5.6495	109.18	163.35	0.28232	0.37971	97
98	244.7	242.6	0.01628	0.174	61.42	5.7430	109.56	163.40	0.28300	0.37961	98
99	248.1	246.0	0.01633	0.171	61.23	5.8382	109.95	163.45	0.28368	0.37950	99
100	251.5	249.3	0.01639	0.168	61.03	5.9351	110.35	163.50	0.28436	0.37940	100
101	254.9	252.8	0.01644	0.166	60.83	6.0337	110.74	163.54	0.28504	0.37929	101
102	258.3	256.2	0.01649	0.163	60.63	6.1342	111.13	163.59	0.28573	0.37918	102
103	261.8	259.7	0.01655	0.160	60.43	6.2365	111.53	163.63	0.28641	0.37907	103
104	265.3	263.2	0.01661	0.158	60.22	6.3407	111.93	163.66	0.28710	0.37895	104
105	268.9	266.8	0.01666	0.155	60.01	6.4468	112.33	163.70	0.28779	0.37884	105
106	272.5	270.3	0.01672	0.153	59.81	6.5550	112.73	163.74	0.28848	0.37871	106
107	276.1	274.0	0.01678	0.150	59.60	6.6652	113.13	163.77	0.28917	0.37859	107
108	279.8	277.6	0.01684	0.148	59.38	6.7776	113.54	163.80	0.28987	0.37847	108
109	283.5	281.3	0.01690	0.145	59.17	6.8922	113.94	163.82	0.29056	0.37834	109
110	287.2	285.1	0.01696	0.143	58.95	7.0090	114.35	163.85	0.29126	0.37821	110
111	291.0	288.8	0.01703	0.140	58.73	7.1281	114.76	163.87	0.29196	0.37807	111
112	294.8	292.7	0.01709	0.138	58.51	7.2497	115.17	163.89	0.29266	0.37793	112
113	298.7	296.5	0.01716	0.136	58.28	7.3737	115.59	163.91	0.29336	0.37779	113
114	302.6	300.4	0.01723	0.133	58.06	7.5004	116.00	163.92	0.29406	0.37765	114

Thermodynamic Properties of R-404A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft ³ /lb)		Density (lb/ft ³)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
115	306.5	304.3	0.01729	0.131	57.82	7.6296	116.42	163.93	0.29477	0.37750	115
116	310.5	308.3	0.01736	0.129	57.59	7.7617	116.84	163.94	0.29548	0.37734	116
117	314.5	312.3	0.01744	0.127	57.36	7.8965	117.27	163.94	0.29619	0.37719	117
118	318.5	316.4	0.01751	0.124	57.12	8.0343	117.69	163.95	0.29690	0.37703	118
119	322.6	320.5	0.01758	0.122	56.87	8.1752	118.12	163.94	0.29762	0.37686	119
120	326.8	324.6	0.01766	0.120	56.63	8.3193	118.55	163.94	0.29834	0.37669	120
121	330.9	328.8	0.01774	0.118	56.38	8.4666	118.98	163.93	0.29906	0.37652	121
122	335.1	333.0	0.01782	0.116	56.13	8.6174	119.41	163.92	0.29978	0.37634	122
123	339.4	337.2	0.01790	0.114	55.87	8.7718	119.85	163.90	0.30051	0.37615	123
124	343.7	341.5	0.01798	0.112	55.61	8.9298	120.29	163.88	0.30124	0.37596	124
125	348.0	345.9	0.01807	0.110	55.35	9.0918	120.74	163.85	0.30198	0.37577	125
126	352.4	350.2	0.01816	0.108	55.08	9.2578	121.18	163.82	0.30272	0.37556	126
127	356.8	354.7	0.01825	0.106	54.81	9.4281	121.63	163.79	0.30346	0.37536	127
128	361.3	359.1	0.01834	0.104	54.53	9.6028	122.09	163.75	0.30420	0.37514	128
129	365.8	363.7	0.01843	0.102	54.25	9.7821	122.54	163.70	0.30495	0.37492	129
130	370.3	368.2	0.01853	0.100	53.96	9.9664	123.00	163.65	0.30571	0.37469	130
131	374.9	372.8	0.01863	0.098	53.67	10.156	123.47	163.60	0.30647	0.37445	131
132	379.6	377.5	0.01874	0.097	53.37	10.351	123.93	163.54	0.30723	0.37421	132
133	384.3	382.2	0.01884	0.095	53.07	10.551	124.41	163.47	0.30800	0.37395	133
134	389.0	386.9	0.01895	0.093	52.76	10.758	124.88	163.40	0.30878	0.37369	134
135	393.8	391.7	0.01907	0.091	52.45	10.970	125.36	163.31	0.30956	0.37341	135
136	398.6	396.6	0.01919	0.089	52.12	11.190	125.85	163.23	0.31035	0.37313	136
137	403.5	401.4	0.01931	0.088	51.79	11.417	126.34	163.13	0.31114	0.37283	137
138	408.4	406.4	0.01943	0.086	51.46	11.652	126.84	163.03	0.31194	0.37253	138
139	413.4	411.4	0.01957	0.084	51.11	11.895	127.34	162.91	0.31275	0.37221	139
140	418.4	416.4	0.01970	0.082	50.76	12.146	127.85	162.79	0.31357	0.37187	140
141	423.5	421.5	0.01985	0.081	50.39	12.408	128.37	162.66	0.31440	0.37152	141
142	428.6	426.7	0.01999	0.079	50.02	12.679	128.89	162.51	0.31524	0.37116	142
143	433.8	431.8	0.02015	0.077	49.63	12.962	129.42	162.36	0.31609	0.37077	143
144	439.0	437.1	0.02031	0.075	49.23	13.256	129.96	162.19	0.31695	0.37037	144
145	444.3	442.4	0.02048	0.074	48.82	13.564	130.51	162.01	0.31782	0.36995	145
146	449.6	447.8	0.02066	0.072	48.39	13.887	131.06	161.81	0.31871	0.36950	146
147	455.0	453.2	0.02086	0.070	47.95	14.226	131.63	161.59	0.31962	0.36903	147
148	460.4	458.6	0.02106	0.069	47.49	14.582	132.22	161.36	0.32054	0.36853	148
149	465.9	464.2	0.02127	0.067	47.01	14.959	132.81	161.11	0.32148	0.36800	149
150	471.5	469.8	0.02150	0.065	46.51	15.358	133.42	160.83	0.32245	0.36743	150
151	477.1	475.4	0.02175	0.063	45.98	15.784	134.05	160.52	0.32345	0.36682	151
152	482.8	481.1	0.02202	0.062	45.41	16.240	134.70	160.19	0.32447	0.36616	152
153	488.5	486.9	0.02231	0.060	44.82	16.731	135.37	159.81	0.32553	0.36544	153
154	494.3	492.8	0.02264	0.058	44.18	17.265	136.08	159.40	0.32664	0.36466	154
155	500.2	498.7	0.02300	0.056	43.49	17.850	136.82	158.93	0.32780	0.36380	155
156	506.1	504.7	0.02341	0.054	42.73	18.501	137.60	158.40	0.32903	0.36283	156
157	512.1	510.8	0.02388	0.052	41.88	19.237	138.44	157.78	0.33036	0.36173	157
158	518.1	516.9	0.02444	0.050	40.91	20.091	139.37	157.04	0.33182	0.36045	158
159	524.3	523.2	0.02515	0.047	39.76	21.121	140.42	156.14	0.33348	0.35889	159
160	530.5	529.5	0.02612	0.045	38.29	22.451	141.70	154.95	0.33549	0.35689	160
161	536.7	536.0	0.02772	0.041	36.08	24.459	143.50	153.14	0.33835	0.35388	161