



Forane[®] 427A

(15.0% R-32, 25.0% R-125, 10.0% R-143a, 50.0% 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-427A - 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	0.302	0.135	0.01040	271.00	96.13	0.00369	29.31	146.00	0.09579	0.48173	-150
-149	0.318	0.144	0.01041	256.29	96.03	0.00390	29.62	146.15	0.09678	0.48090	-149
-148	0.334	0.152	0.01043	242.49	95.93	0.00412	29.92	146.29	0.09777	0.48007	-148
-147	0.352	0.161	0.01044	229.54	95.82	0.00436	30.23	146.43	0.09875	0.47925	-147
-146	0.370	0.171	0.01045	217.38	95.72	0.00460	30.54	146.57	0.09973	0.47844	-146
-145	0.389	0.181	0.01046	205.94	95.62	0.00486	30.85	146.71	0.10071	0.47764	-145
-144	0.409	0.191	0.01047	195.20	95.52	0.00512	31.15	146.85	0.10168	0.47685	-144
-143	0.430	0.203	0.01048	185.09	95.42	0.00540	31.46	147.00	0.10265	0.47607	-143
-142	0.452	0.214	0.01049	175.58	95.32	0.00570	31.76	147.14	0.10361	0.47529	-142
-141	0.474	0.226	0.01050	166.63	95.22	0.00600	32.07	147.28	0.10458	0.47453	-141
-140	0.498	0.239	0.01051	158.21	95.11	0.00632	32.38	147.43	0.10553	0.47377	-140
-139	0.522	0.253	0.01053	150.26	95.01	0.00666	32.68	147.57	0.10649	0.47302	-139
-138	0.548	0.267	0.01054	142.78	94.91	0.00700	32.99	147.71	0.10744	0.47228	-138
-137	0.574	0.281	0.01055	135.72	94.81	0.00737	33.29	147.85	0.10838	0.47155	-137
-136	0.602	0.297	0.01056	129.06	94.71	0.00775	33.60	148.00	0.10933	0.47082	-136
-135	0.631	0.313	0.01057	122.78	94.61	0.00814	33.90	148.14	0.11026	0.47011	-135
-134	0.661	0.330	0.01058	116.85	94.51	0.00856	34.20	148.29	0.11120	0.46940	-134
-133	0.692	0.347	0.01059	111.24	94.41	0.00899	34.51	148.43	0.11213	0.46870	-133
-132	0.724	0.366	0.01060	105.95	94.31	0.00944	34.81	148.57	0.11306	0.46801	-132
-131	0.758	0.385	0.01062	100.95	94.21	0.00991	35.12	148.72	0.11399	0.46732	-131
-130	0.793	0.405	0.01063	96.21	94.11	0.01039	35.42	148.86	0.11491	0.46665	-130
-129	0.829	0.426	0.01064	91.74	94.01	0.01090	35.72	149.01	0.11583	0.46598	-129
-128	0.867	0.448	0.01065	87.50	93.91	0.01143	36.03	149.15	0.11675	0.46531	-128
-127	0.906	0.471	0.01066	83.49	93.81	0.01198	36.33	149.29	0.11766	0.46466	-127
-126	0.946	0.495	0.01067	79.69	93.71	0.01255	36.64	149.44	0.11857	0.46401	-126
-125	0.988	0.520	0.01068	76.09	93.60	0.01314	36.94	149.58	0.11948	0.46337	-125
-124	1.032	0.546	0.01070	72.68	93.50	0.01376	37.24	149.73	0.12038	0.46274	-124
-123	1.077	0.573	0.01071	69.44	93.40	0.01440	37.54	149.87	0.12129	0.46211	-123
-122	1.124	0.601	0.01072	66.37	93.30	0.01507	37.85	150.02	0.12218	0.46149	-122
-121	1.173	0.630	0.01073	63.46	93.20	0.01576	38.15	150.16	0.12308	0.46088	-121
-120	1.223	0.661	0.01074	60.70	93.10	0.01648	38.45	150.31	0.12397	0.46028	-120
-119	1.276	0.692	0.01075	58.08	93.00	0.01722	38.76	150.46	0.12486	0.45968	-119
-118	1.330	0.726	0.01076	55.58	92.90	0.01799	39.06	150.60	0.12575	0.45908	-118
-117	1.385	0.760	0.01078	53.21	92.80	0.01879	39.36	150.75	0.12663	0.45850	-117
-116	1.443	0.796	0.01079	50.96	92.70	0.01962	39.66	150.89	0.12752	0.45792	-116
-115	1.503	0.833	0.01080	48.82	92.60	0.02048	39.97	151.04	0.12840	0.45735	-115
-114	1.565	0.871	0.01081	46.79	92.50	0.02137	40.27	151.18	0.12927	0.45678	-114
-113	1.629	0.911	0.01082	44.85	92.40	0.02230	40.57	151.33	0.13015	0.45622	-113
-112	1.695	0.953	0.01083	43.01	92.30	0.02325	40.88	151.48	0.13102	0.45566	-112
-111	1.764	0.996	0.01085	41.25	92.20	0.02424	41.18	151.62	0.13189	0.45512	-111
-110	1.834	1.041	0.01086	39.58	92.10	0.02527	41.48	151.77	0.13275	0.45457	-110
-109	1.907	1.088	0.01087	37.98	92.00	0.02633	41.78	151.92	0.13362	0.45404	-109
-108	1.983	1.136	0.01088	36.47	91.90	0.02742	42.09	152.06	0.13448	0.45351	-108
-107	2.060	1.186	0.01089	35.02	91.80	0.02856	42.39	152.21	0.13534	0.45298	-107
-106	2.141	1.238	0.01091	33.64	91.70	0.02973	42.69	152.35	0.13619	0.45246	-106
-105	2.224	1.292	0.01092	32.32	91.60	0.03094	42.99	152.50	0.13705	0.45195	-105
-104	2.309	1.347	0.01093	31.07	91.50	0.03219	43.30	152.65	0.13790	0.45144	-104
-103	2.398	1.405	0.01094	29.87	91.40	0.03348	43.60	152.79	0.13875	0.45094	-103
-102	2.489	1.465	0.01095	28.72	91.30	0.03482	43.90	152.94	0.13959	0.45044	-102
-101	2.582	1.527	0.01097	27.63	91.19	0.03620	44.20	153.09	0.14044	0.44995	-101
-100	2.679	1.591	0.01098	26.58	91.09	0.03762	44.51	153.24	0.14128	0.44947	-100
-99	2.779	1.657	0.01099	25.58	90.99	0.03909	44.81	153.38	0.14212	0.44899	-99
-98	2.882	1.726	0.01100	24.63	90.89	0.04060	45.11	153.53	0.14296	0.44851	-98

Thermodynamic Properties of R-427A - 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	2.988	1.796	0.01101	23.72	90.79	0.04216	45.42	153.68	0.14379	0.44804	-97
-96	3.097	1.870	0.01103	22.84	90.69	0.04378	45.72	153.82	0.14463	0.44758	-96
-95	3.209	1.945	0.01104	22.01	90.59	0.04544	46.02	153.97	0.14546	0.44712	-95
-94	3.324	2.024	0.01105	21.21	90.49	0.04715	46.32	154.12	0.14629	0.44666	-94
-93	3.443	2.105	0.01106	20.45	90.39	0.04891	46.63	154.26	0.14712	0.44621	-93
-92	3.566	2.188	0.01108	19.71	90.29	0.05073	46.93	154.41	0.14794	0.44577	-92
-91	3.692	2.274	0.01109	19.01	90.18	0.05260	47.23	154.56	0.14876	0.44533	-91
-90	3.822	2.363	0.01110	18.34	90.08	0.05453	47.54	154.70	0.14959	0.44489	-90
-89	3.955	2.455	0.01111	17.69	89.98	0.05652	47.84	154.85	0.15040	0.44446	-89
-88	4.092	2.550	0.01113	17.08	89.88	0.05856	48.14	155.00	0.15122	0.44404	-88
-87	4.233	2.648	0.01114	16.48	89.78	0.06066	48.45	155.15	0.15204	0.44362	-87
-86	4.378	2.749	0.01115	15.92	89.68	0.06283	48.75	155.29	0.15285	0.44320	-86
-85	4.527	2.853	0.01116	15.37	89.58	0.06505	49.06	155.44	0.15366	0.44279	-85
-84	4.680	2.960	0.01118	14.85	89.47	0.06734	49.36	155.59	0.15447	0.44238	-84
-83	4.837	3.070	0.01119	14.35	89.37	0.06970	49.66	155.73	0.15528	0.44198	-83
-82	4.998	3.184	0.01120	13.87	89.27	0.07212	49.97	155.88	0.15608	0.44158	-82
-81	5.164	3.302	0.01122	13.40	89.17	0.07461	50.27	156.03	0.15689	0.44118	-81
-80	5.334	3.422	0.01123	12.96	89.07	0.07716	50.58	156.18	0.15769	0.44079	-80
-79	5.509	3.547	0.01124	12.53	88.97	0.07979	50.88	156.32	0.15849	0.44041	-79
-78	5.688	3.675	0.01125	12.12	88.86	0.08249	51.19	156.47	0.15929	0.44002	-78
-77	5.872	3.807	0.01127	11.73	88.76	0.08526	51.49	156.62	0.16008	0.43965	-77
-76	6.061	3.943	0.01128	11.35	88.66	0.08811	51.79	156.76	0.16088	0.43927	-76
-75	6.255	4.082	0.01129	10.99	88.56	0.09103	52.10	156.91	0.16167	0.43890	-75
-74	6.454	4.226	0.01131	10.64	88.45	0.09403	52.40	157.06	0.16246	0.43854	-74
-73	6.657	4.374	0.01132	10.30	88.35	0.09711	52.71	157.20	0.16325	0.43818	-73
-72	6.866	4.526	0.01133	9.973	88.25	0.10027	53.02	157.35	0.16404	0.43782	-72
-71	7.080	4.682	0.01135	9.661	88.14	0.10351	53.32	157.50	0.16482	0.43746	-71
-70	7.300	4.843	0.01136	9.360	88.04	0.10683	53.63	157.64	0.16561	0.43711	-70
-69	7.525	5.008	0.01137	9.071	87.94	0.11024	53.93	157.79	0.16639	0.43677	-69
-68	7.755	5.177	0.01139	8.792	87.84	0.11374	54.24	157.94	0.16717	0.43642	-68
-67	7.991	5.352	0.01140	8.523	87.73	0.11733	54.54	158.08	0.16795	0.43609	-67
-66	8.233	5.531	0.01141	8.264	87.63	0.12100	54.85	158.23	0.16873	0.43575	-66
-65	8.481	5.714	0.01143	8.015	87.53	0.12477	55.16	158.37	0.16950	0.43542	-65
-64	8.735	5.903	0.01144	7.774	87.42	0.12863	55.46	158.52	0.17028	0.43509	-64
-63	8.994	6.097	0.01145	7.543	87.32	0.13258	55.77	158.67	0.17105	0.43477	-63
-62	9.260	6.296	0.01147	7.319	87.21	0.13663	56.08	158.81	0.17182	0.43444	-62
-61	9.532	6.500	0.01148	7.103	87.11	0.14078	56.38	158.96	0.17259	0.43413	-61
-60	9.811	6.709	0.01149	6.895	87.01	0.14503	56.69	159.10	0.17336	0.43381	-60
-59	10.10	6.924	0.01151	6.694	86.90	0.14938	57.00	159.25	0.17412	0.43350	-59
-58	10.39	7.144	0.01152	6.500	86.80	0.15384	57.31	159.40	0.17489	0.43319	-58
-57	10.69	7.370	0.01154	6.313	86.69	0.15840	57.61	159.54	0.17565	0.43289	-57
-56	10.99	7.602	0.01155	6.133	86.59	0.16306	57.92	159.69	0.17641	0.43259	-56
-55	11.30	7.839	0.01156	5.958	86.48	0.16784	58.23	159.83	0.17718	0.43229	-55
-54	11.62	8.083	0.01158	5.790	86.38	0.17272	58.54	159.98	0.17793	0.43199	-54
-53	11.95	8.332	0.01159	5.627	86.27	0.17772	58.85	160.12	0.17869	0.43170	-53
-52	12.28	8.588	0.01161	5.470	86.17	0.18283	59.15	160.27	0.17945	0.43141	-52
-51	12.62	8.849	0.01162	5.317	86.06	0.18806	59.46	160.41	0.18020	0.43113	-51
-50	12.97	9.118	0.01163	5.170	85.96	0.19341	59.77	160.56	0.18096	0.43084	-50
-49	13.32	9.392	0.01165	5.028	85.85	0.19888	60.08	160.70	0.18171	0.43056	-49
-48	13.69	9.673	0.01166	4.891	85.75	0.20446	60.39	160.85	0.18246	0.43029	-48
-47	14.06	9.961	0.01168	4.758	85.64	0.21018	60.70	160.99	0.18321	0.43001	-47
-46	14.44	10.26	0.01169	4.629	85.54	0.21602	61.01	161.13	0.18396	0.42974	-46
-45	14.82	10.56	0.01171	4.505	85.43	0.22198	61.32	161.28	0.18470	0.42947	-45

Thermodynamic Properties of R-427A - 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	15.22	10.87	0.01172	4.385	85.32	0.22808	61.63	161.42	0.18545	0.42921	-44
-43	15.62	11.18	0.01174	4.268	85.22	0.23431	61.94	161.56	0.18619	0.42895	-43
-42	16.03	11.51	0.01175	4.155	85.11	0.24067	62.25	161.71	0.18693	0.42869	-42
-41	16.45	11.84	0.01176	4.046	85.00	0.24717	62.56	161.85	0.18768	0.42843	-41
-40	16.88	12.17	0.01178	3.940	84.90	0.25380	62.87	161.99	0.18842	0.42817	-40
-39	17.32	12.52	0.01179	3.838	84.79	0.26058	63.19	162.14	0.18916	0.42792	-39
-38	17.77	12.87	0.01181	3.738	84.68	0.26750	63.50	162.28	0.18989	0.42767	-38
-37	18.22	13.23	0.01182	3.642	84.57	0.27456	63.81	162.42	0.19063	0.42743	-37
-36	18.69	13.60	0.01184	3.549	84.47	0.28177	64.12	162.57	0.19136	0.42718	-36
-35	19.16	13.98	0.01185	3.459	84.36	0.28913	64.43	162.71	0.19210	0.42694	-35
-34	19.65	14.37	0.01187	3.371	84.25	0.29664	64.75	162.85	0.19283	0.42670	-34
-33	20.14	14.76	0.01189	3.286	84.14	0.30430	65.06	162.99	0.19356	0.42646	-33
-32	20.64	15.16	0.01190	3.204	84.04	0.31212	65.37	163.13	0.19429	0.42623	-32
-31	21.15	15.58	0.01192	3.124	83.93	0.32009	65.68	163.28	0.19502	0.42600	-31
-30	21.68	16.00	0.01193	3.047	83.82	0.32823	66.00	163.42	0.19575	0.42577	-30
-29	22.21	16.42	0.01195	2.972	83.71	0.33653	66.31	163.56	0.19648	0.42554	-29
-28	22.75	16.86	0.01196	2.899	83.60	0.34499	66.63	163.70	0.19720	0.42531	-28
-27	23.30	17.31	0.01198	2.828	83.49	0.35362	66.94	163.84	0.19793	0.42509	-27
-26	23.87	17.77	0.01199	2.759	83.38	0.36242	67.25	163.98	0.19865	0.42487	-26
-25	24.44	18.23	0.01201	2.693	83.27	0.37139	67.57	164.12	0.19937	0.42465	-25
-24	25.02	18.71	0.01203	2.628	83.16	0.38054	67.88	164.26	0.20009	0.42444	-24
-23	25.62	19.19	0.01204	2.565	83.05	0.38986	68.20	164.40	0.20081	0.42422	-23
-22	26.22	19.69	0.01206	2.504	82.94	0.39936	68.52	164.54	0.20153	0.42401	-22
-21	26.84	20.19	0.01207	2.445	82.83	0.40905	68.83	164.68	0.20225	0.42380	-21
-20	27.47	20.71	0.01209	2.387	82.72	0.41892	69.15	164.82	0.20296	0.42359	-20
-19	28.11	21.23	0.01211	2.331	82.61	0.42897	69.46	164.96	0.20368	0.42339	-19
-18	28.76	21.77	0.01212	2.277	82.50	0.43922	69.78	165.10	0.20439	0.42318	-18
-17	29.42	22.31	0.01214	2.224	82.39	0.44965	70.10	165.23	0.20511	0.42298	-17
-16	30.10	22.87	0.01215	2.173	82.28	0.46028	70.42	165.37	0.20582	0.42278	-16
-15	30.79	23.44	0.01217	2.123	82.17	0.47111	70.73	165.51	0.20653	0.42258	-15
-14	31.48	24.02	0.01219	2.074	82.05	0.48214	71.05	165.65	0.20724	0.42239	-14
-13	32.20	24.61	0.01220	2.027	81.94	0.49337	71.37	165.79	0.20795	0.42220	-13
-12	32.92	25.21	0.01222	1.981	81.83	0.50481	71.69	165.92	0.20866	0.42200	-12
-11	33.65	25.82	0.01224	1.936	81.72	0.51645	72.01	166.06	0.20937	0.42181	-11
-10	34.40	26.44	0.01225	1.893	81.60	0.52831	72.33	166.20	0.21007	0.42162	-10
-9	35.16	27.08	0.01227	1.851	81.49	0.54038	72.64	166.33	0.21078	0.42144	-9
-8	35.94	27.73	0.01229	1.809	81.38	0.55267	72.96	166.47	0.21149	0.42125	-8
-7	36.73	28.39	0.01231	1.769	81.26	0.56517	73.28	166.60	0.21219	0.42107	-7
-6	37.53	29.06	0.01232	1.730	81.15	0.57790	73.60	166.74	0.21289	0.42089	-6
-5	38.34	29.74	0.01234	1.693	81.04	0.59086	73.93	166.88	0.21359	0.42071	-5
-4	39.17	30.44	0.01236	1.656	80.92	0.60404	74.25	167.01	0.21429	0.42053	-4
-3	40.01	31.15	0.01238	1.620	80.81	0.61745	74.57	167.14	0.21499	0.42036	-3
-2	40.86	31.87	0.01239	1.585	80.69	0.63110	74.89	167.28	0.21569	0.42018	-2
-1	41.73	32.60	0.01241	1.550	80.58	0.64499	75.21	167.41	0.21639	0.42001	-1
0	42.62	33.35	0.01243	1.517	80.46	0.65912	75.53	167.55	0.21709	0.41984	0
1	43.51	34.11	0.01245	1.485	80.35	0.67349	75.86	167.68	0.21779	0.41967	1
2	44.42	34.89	0.01246	1.453	80.23	0.68811	76.18	167.81	0.21848	0.41950	2
3	45.35	35.68	0.01248	1.423	80.12	0.70298	76.50	167.95	0.21918	0.41933	3
4	46.29	36.48	0.01250	1.393	80.00	0.71810	76.83	168.08	0.21987	0.41917	4
5	47.25	37.29	0.01252	1.363	79.88	0.73348	77.15	168.21	0.22056	0.41900	5
6	48.22	38.12	0.01254	1.335	79.77	0.74912	77.47	168.34	0.22126	0.41884	6
7	49.20	38.97	0.01256	1.307	79.65	0.76502	77.80	168.47	0.22195	0.41868	7
8	50.21	39.82	0.01257	1.280	79.53	0.78119	78.12	168.60	0.22264	0.41852	8

Thermodynamic Properties of R-427A - 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	51.22	40.70	0.01259	1.254	79.41	0.79763	78.45	168.73	0.22333	0.41836	9
10	52.26	41.58	0.01261	1.228	79.29	0.81434	78.77	168.86	0.22402	0.41820	10
11	53.30	42.49	0.01263	1.203	79.18	0.83133	79.10	168.99	0.22471	0.41805	11
12	54.37	43.40	0.01265	1.178	79.06	0.84860	79.43	169.12	0.22539	0.41789	12
13	55.45	44.34	0.01267	1.155	78.94	0.86616	79.75	169.25	0.22608	0.41774	13
14	56.55	45.28	0.01269	1.131	78.82	0.88400	80.08	169.38	0.22677	0.41759	14
15	57.66	46.25	0.01271	1.109	78.70	0.90214	80.41	169.51	0.22745	0.41744	15
16	58.79	47.22	0.01273	1.086	78.58	0.92057	80.74	169.64	0.22814	0.41729	16
17	59.93	48.22	0.01275	1.065	78.46	0.93930	81.07	169.77	0.22882	0.41714	17
18	61.10	49.23	0.01277	1.044	78.34	0.95834	81.39	169.89	0.22951	0.41700	18
19	62.28	50.26	0.01279	1.023	78.22	0.97768	81.72	170.02	0.23019	0.41685	19
20	63.48	51.30	0.01281	1.003	78.10	0.99733	82.05	170.15	0.23087	0.41671	20
21	64.69	52.36	0.01283	0.983	77.98	1.0173	82.38	170.27	0.23155	0.41656	21
22	65.92	53.44	0.01285	0.964	77.85	1.0376	82.71	170.40	0.23223	0.41642	22
23	67.18	54.53	0.01287	0.945	77.73	1.0582	83.05	170.52	0.23291	0.41628	23
24	68.44	55.64	0.01289	0.927	77.61	1.0791	83.38	170.65	0.23359	0.41614	24
25	69.73	56.77	0.01291	0.909	77.49	1.1004	83.71	170.77	0.23427	0.41600	25
26	71.04	57.91	0.01293	0.891	77.36	1.1220	84.04	170.90	0.23495	0.41586	26
27	72.36	59.07	0.01295	0.874	77.24	1.1440	84.37	171.02	0.23563	0.41572	27
28	73.70	60.26	0.01297	0.857	77.12	1.1663	84.71	171.14	0.23630	0.41559	28
29	75.06	61.45	0.01299	0.841	76.99	1.1889	85.04	171.27	0.23698	0.41545	29
30	76.44	62.67	0.01301	0.825	76.87	1.2119	85.37	171.39	0.23766	0.41532	30
31	77.84	63.90	0.01303	0.810	76.74	1.2352	85.71	171.51	0.23833	0.41519	31
32	79.26	65.16	0.01305	0.794	76.62	1.2590	86.04	171.63	0.23901	0.41505	32
33	80.69	66.43	0.01307	0.779	76.49	1.2830	86.38	171.75	0.23968	0.41492	33
34	82.15	67.72	0.01310	0.765	76.36	1.3075	86.71	171.87	0.24035	0.41479	34
35	83.63	69.03	0.01312	0.751	76.24	1.3323	87.05	171.99	0.24103	0.41466	35
36	85.12	70.36	0.01314	0.737	76.11	1.3575	87.39	172.11	0.24170	0.41453	36
37	86.64	71.71	0.01316	0.723	75.98	1.3831	87.72	172.23	0.24237	0.41441	37
38	88.17	73.08	0.01318	0.710	75.85	1.4091	88.06	172.35	0.24304	0.41428	38
39	89.73	74.46	0.01321	0.697	75.73	1.4355	88.40	172.46	0.24371	0.41415	39
40	91.31	75.87	0.01323	0.684	75.60	1.4623	88.74	172.58	0.24438	0.41403	40
41	92.91	77.30	0.01325	0.671	75.47	1.4895	89.08	172.70	0.24505	0.41390	41
42	94.53	78.75	0.01327	0.659	75.34	1.5171	89.42	172.81	0.24572	0.41378	42
43	96.17	80.22	0.01330	0.647	75.21	1.5452	89.76	172.93	0.24639	0.41365	43
44	97.83	81.71	0.01332	0.635	75.08	1.5736	90.10	173.04	0.24706	0.41353	44
45	99.51	83.22	0.01334	0.624	74.95	1.6025	90.44	173.16	0.24773	0.41341	45
46	101.2	84.75	0.01337	0.613	74.82	1.6318	90.78	173.27	0.24840	0.41328	46
47	102.9	86.30	0.01339	0.602	74.68	1.6616	91.12	173.39	0.24907	0.41316	47
48	104.7	87.88	0.01341	0.591	74.55	1.6918	91.46	173.50	0.24973	0.41304	48
49	106.5	89.47	0.01344	0.581	74.42	1.7225	91.81	173.61	0.25040	0.41292	49
50	108.3	91.09	0.01346	0.570	74.28	1.7536	92.15	173.72	0.25107	0.41280	50
51	110.1	92.73	0.01349	0.560	74.15	1.7852	92.50	173.83	0.25173	0.41268	51
52	111.9	94.39	0.01351	0.550	74.02	1.8173	92.84	173.94	0.25240	0.41256	52
53	113.8	96.08	0.01354	0.541	73.88	1.8498	93.19	174.05	0.25306	0.41245	53
54	115.7	97.79	0.01356	0.531	73.75	1.8828	93.53	174.16	0.25373	0.41233	54
55	117.6	99.52	0.01359	0.522	73.61	1.9164	93.88	174.27	0.25439	0.41221	55
56	119.5	101.3	0.01361	0.513	73.47	1.9504	94.23	174.38	0.25506	0.41209	56
57	121.4	103.1	0.01364	0.504	73.34	1.9849	94.57	174.48	0.25572	0.41198	57
58	123.4	104.9	0.01366	0.495	73.20	2.0200	94.92	174.59	0.25638	0.41186	58
59	125.4	106.7	0.01369	0.487	73.06	2.0555	95.27	174.70	0.25705	0.41175	59
60	127.5	108.5	0.01371	0.478	72.92	2.0916	95.62	174.80	0.25771	0.41163	60
61	129.5	110.4	0.01374	0.470	72.78	2.1282	95.97	174.91	0.25837	0.41151	61

Thermodynamic Properties of R-427A - 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	131.6	112.3	0.01377	0.462	72.64	2.1654	96.32	175.01	0.25904	0.41140	62
63	133.7	114.2	0.01379	0.454	72.50	2.2031	96.67	175.11	0.25970	0.41128	63
64	135.8	116.2	0.01382	0.446	72.36	2.2414	97.02	175.21	0.26036	0.41117	64
65	138.0	118.1	0.01385	0.439	72.22	2.2802	97.38	175.32	0.26102	0.41105	65
66	140.1	120.1	0.01387	0.431	72.08	2.3197	97.73	175.42	0.26169	0.41094	66
67	142.3	122.1	0.01390	0.424	71.94	2.3597	98.08	175.52	0.26235	0.41083	67
68	144.6	124.2	0.01393	0.417	71.79	2.4003	98.44	175.61	0.26301	0.41071	68
69	146.8	126.3	0.01396	0.410	71.65	2.4415	98.79	175.71	0.26367	0.41060	69
70	149.1	128.4	0.01399	0.403	71.50	2.4833	99.15	175.81	0.26433	0.41048	70
71	151.4	130.5	0.01401	0.396	71.36	2.5257	99.51	175.91	0.26499	0.41037	71
72	153.7	132.6	0.01404	0.389	71.21	2.5688	99.86	176.00	0.26566	0.41026	72
73	156.1	134.8	0.01407	0.383	71.07	2.6125	100.22	176.10	0.26632	0.41014	73
74	158.5	137.0	0.01410	0.376	70.92	2.6568	100.58	176.19	0.26698	0.41003	74
75	160.9	139.3	0.01413	0.370	70.77	2.7018	100.94	176.29	0.26764	0.40991	75
76	163.3	141.5	0.01416	0.364	70.62	2.7475	101.30	176.38	0.26830	0.40980	76
77	165.8	143.8	0.01419	0.358	70.47	2.7938	101.66	176.47	0.26896	0.40968	77
78	168.3	146.1	0.01422	0.352	70.32	2.8409	102.02	176.56	0.26962	0.40957	78
79	170.8	148.5	0.01425	0.346	70.17	2.8886	102.38	176.65	0.27028	0.40945	79
80	173.3	150.8	0.01428	0.340	70.02	2.9371	102.75	176.74	0.27094	0.40934	80
81	175.9	153.2	0.01431	0.335	69.87	2.9862	103.11	176.83	0.27161	0.40922	81
82	178.5	155.7	0.01435	0.329	69.71	3.0361	103.48	176.91	0.27227	0.40911	82
83	181.2	158.1	0.01438	0.324	69.56	3.0868	103.84	177.00	0.27293	0.40899	83
84	183.8	160.6	0.01441	0.319	69.40	3.1382	104.21	177.08	0.27359	0.40888	84
85	186.5	163.1	0.01444	0.313	69.25	3.1904	104.58	177.17	0.27425	0.40876	85
86	189.2	165.7	0.01447	0.308	69.09	3.2434	104.94	177.25	0.27491	0.40864	86
87	192.0	168.3	0.01451	0.303	68.93	3.2971	105.31	177.33	0.27557	0.40853	87
88	194.8	170.9	0.01454	0.298	68.78	3.3517	105.68	177.41	0.27624	0.40841	88
89	197.6	173.5	0.01457	0.294	68.62	3.4071	106.05	177.49	0.27690	0.40829	89
90	200.4	176.2	0.01461	0.289	68.46	3.4634	106.42	177.57	0.27756	0.40817	90
91	203.3	178.9	0.01464	0.284	68.30	3.5205	106.80	177.65	0.27822	0.40805	91
92	206.2	181.6	0.01468	0.279	68.13	3.5785	107.17	177.73	0.27889	0.40793	92
93	209.1	184.4	0.01471	0.275	67.97	3.6373	107.54	177.80	0.27955	0.40781	93
94	212.1	187.2	0.01475	0.270	67.81	3.6971	107.92	177.88	0.28021	0.40769	94
95	215.0	190.0	0.01478	0.266	67.64	3.7577	108.29	177.95	0.28088	0.40757	95
96	218.1	192.8	0.01482	0.262	67.48	3.8193	108.67	178.02	0.28154	0.40745	96
97	221.1	195.7	0.01486	0.258	67.31	3.8819	109.05	178.09	0.28220	0.40732	97
98	224.2	198.7	0.01489	0.253	67.14	3.9454	109.43	178.16	0.28287	0.40720	98
99	227.3	201.6	0.01493	0.249	66.97	4.0099	109.81	178.23	0.28353	0.40708	99
100	230.5	204.6	0.01497	0.245	66.80	4.0755	110.19	178.30	0.28420	0.40695	100
101	233.6	207.6	0.01501	0.241	66.63	4.1420	110.57	178.36	0.28486	0.40682	101
102	236.9	210.7	0.01505	0.238	66.46	4.2096	110.95	178.42	0.28553	0.40670	102
103	240.1	213.8	0.01509	0.234	66.29	4.2783	111.34	178.49	0.28620	0.40657	103
104	243.4	216.9	0.01513	0.230	66.11	4.3480	111.72	178.55	0.28687	0.40644	104
105	246.7	220.1	0.01517	0.226	65.94	4.4188	112.11	178.61	0.28753	0.40631	105
106	250.0	223.3	0.01521	0.223	65.76	4.4908	112.50	178.67	0.28820	0.40617	106
107	253.4	226.5	0.01525	0.219	65.58	4.5640	112.88	178.72	0.28887	0.40604	107
108	256.8	229.8	0.01529	0.216	65.40	4.6383	113.27	178.78	0.28954	0.40591	108
109	260.3	233.1	0.01533	0.212	65.22	4.7138	113.66	178.83	0.29021	0.40577	109
110	263.8	236.4	0.01538	0.209	65.04	4.7905	114.06	178.88	0.29088	0.40564	110
111	267.3	239.8	0.01542	0.205	64.86	4.8685	114.45	178.94	0.29155	0.40550	111
112	270.8	243.2	0.01546	0.202	64.67	4.9478	114.84	178.98	0.29223	0.40536	112
113	274.4	246.6	0.01551	0.199	64.49	5.0284	115.24	179.03	0.29290	0.40522	113
114	278.0	250.1	0.01555	0.196	64.30	5.1103	115.64	179.08	0.29357	0.40507	114

Thermodynamic Properties of R-427A - 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	281.7	253.6	0.01560	0.193	64.11	5.1936	116.03	179.12	0.29425	0.40493	115
116	285.4	257.2	0.01564	0.189	63.92	5.2783	116.43	179.16	0.29493	0.40479	116
117	289.1	260.8	0.01569	0.186	63.73	5.3645	116.83	179.20	0.29560	0.40464	117
118	292.8	264.4	0.01574	0.183	63.54	5.4521	117.24	179.24	0.29628	0.40449	118
119	296.6	268.1	0.01579	0.180	63.34	5.5412	117.64	179.28	0.29696	0.40434	119
120	300.5	271.8	0.01584	0.178	63.15	5.6318	118.05	179.31	0.29764	0.40418	120
121	304.3	275.6	0.01589	0.175	62.95	5.7241	118.45	179.35	0.29832	0.40403	121
122	308.3	279.4	0.01594	0.172	62.75	5.8179	118.86	179.38	0.29900	0.40387	122
123	312.2	283.2	0.01599	0.169	62.55	5.9134	119.27	179.41	0.29969	0.40371	123
124	316.2	287.1	0.01604	0.166	62.34	6.0106	119.68	179.43	0.30037	0.40355	124
125	320.2	291.0	0.01609	0.164	62.14	6.1096	120.09	179.46	0.30106	0.40339	125
126	324.3	295.0	0.01615	0.161	61.93	6.2103	120.51	179.48	0.30175	0.40322	126
127	328.3	299.0	0.01620	0.158	61.72	6.3129	120.92	179.50	0.30244	0.40305	127
128	332.5	303.0	0.01626	0.156	61.51	6.4173	121.34	179.52	0.30313	0.40288	128
129	336.7	307.1	0.01631	0.153	61.30	6.5237	121.76	179.53	0.30382	0.40271	129
130	340.9	311.2	0.01637	0.151	61.08	6.6321	122.18	179.54	0.30451	0.40253	130
131	345.1	315.4	0.01643	0.148	60.86	6.7426	122.61	179.55	0.30521	0.40235	131
132	349.4	319.6	0.01649	0.146	60.64	6.8552	123.03	179.56	0.30590	0.40217	132
133	353.7	323.9	0.01655	0.143	60.42	6.9699	123.46	179.56	0.30660	0.40199	133
134	358.1	328.2	0.01661	0.141	60.20	7.0869	123.89	179.57	0.30730	0.40180	134
135	362.5	332.5	0.01668	0.139	59.97	7.2063	124.32	179.56	0.30801	0.40161	135
136	366.9	336.9	0.01674	0.136	59.74	7.3280	124.75	179.56	0.30871	0.40141	136
137	371.4	341.4	0.01681	0.134	59.51	7.4521	125.19	179.55	0.30942	0.40121	137
138	376.0	345.9	0.01687	0.132	59.27	7.5789	125.63	179.54	0.31013	0.40101	138
139	380.5	350.4	0.01694	0.130	59.04	7.7082	126.07	179.53	0.31084	0.40080	139
140	385.1	355.0	0.01701	0.128	58.79	7.8403	126.51	179.51	0.31156	0.40059	140
141	389.8	359.6	0.01708	0.125	58.55	7.9752	126.96	179.49	0.31228	0.40038	141
142	394.5	364.3	0.01715	0.123	58.30	8.1130	127.40	179.47	0.31300	0.40016	142
143	399.2	369.0	0.01723	0.121	58.05	8.2539	127.85	179.44	0.31372	0.39994	143
144	404.0	373.8	0.01730	0.119	57.80	8.3978	128.31	179.41	0.31444	0.39971	144
145	408.8	378.6	0.01738	0.117	57.54	8.5451	128.76	179.37	0.31517	0.39948	145
146	413.7	383.5	0.01746	0.115	57.28	8.6957	129.22	179.33	0.31591	0.39924	146
147	418.6	388.4	0.01754	0.113	57.02	8.8499	129.69	179.29	0.31664	0.39899	147
148	423.6	393.4	0.01762	0.111	56.75	9.0077	130.15	179.24	0.31738	0.39874	148
149	428.6	398.4	0.01771	0.109	56.47	9.1694	130.62	179.19	0.31813	0.39849	149
150	433.6	403.5	0.01780	0.107	56.20	9.3351	131.09	179.13	0.31888	0.39822	150
151	438.7	408.7	0.01789	0.105	55.91	9.5049	131.57	179.07	0.31963	0.39796	151
152	443.8	413.8	0.01798	0.103	55.63	9.6791	132.05	179.00	0.32038	0.39768	152
153	449.0	419.1	0.01807	0.101	55.34	9.8579	132.53	178.92	0.32115	0.39740	153
154	454.2	424.4	0.01817	0.100	55.04	10.042	133.02	178.84	0.32191	0.39711	154
155	459.5	429.8	0.01827	0.098	54.73	10.230	133.51	178.76	0.32269	0.39681	155
156	464.8	435.2	0.01837	0.096	54.43	10.424	134.01	178.67	0.32347	0.39650	156
157	470.1	440.7	0.01848	0.094	54.11	10.624	134.51	178.57	0.32425	0.39618	157
158	475.5	446.2	0.01859	0.092	53.79	10.829	135.02	178.46	0.32504	0.39586	158
159	481.0	451.8	0.01871	0.091	53.46	11.041	135.53	178.35	0.32584	0.39552	159
160	486.5	457.4	0.01883	0.089	53.12	11.259	136.05	178.23	0.32665	0.39517	160
161	492.0	463.2	0.01895	0.087	52.78	11.484	136.57	178.10	0.32746	0.39481	161
162	497.6	468.9	0.01908	0.085	52.42	11.717	137.10	177.96	0.32828	0.39444	162
163	503.2	474.8	0.01921	0.084	52.06	11.958	137.64	177.81	0.32912	0.39406	163
164	508.9	480.7	0.01935	0.082	51.69	12.207	138.19	177.65	0.32996	0.39366	164
165	514.6	486.7	0.01949	0.080	51.30	12.466	138.74	177.49	0.33081	0.39324	165
166	520.4	492.7	0.01964	0.079	50.91	12.734	139.30	177.31	0.33168	0.39281	166
167	526.2	498.9	0.01980	0.077	50.50	13.013	139.87	177.11	0.33256	0.39237	167

Thermodynamic Properties of R-427A - 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	
168	532.1	505.1	0.01997	0.075	50.08	13.304	140.45	176.91	0.33345	0.39190	168
169	538.0	511.3	0.02014	0.073	49.64	13.607	141.05	176.69	0.33436	0.39141	169
170	544.0	517.7	0.02033	0.072	49.19	13.924	141.65	176.45	0.33528	0.39090	170
171	550.0	524.1	0.02053	0.070	48.72	14.257	142.27	176.19	0.33623	0.39036	171
172	556.0	530.6	0.02074	0.068	48.23	14.606	142.90	175.92	0.33720	0.38979	172
173	562.1	537.2	0.02096	0.067	47.71	14.975	143.56	175.62	0.33819	0.38919	173
174	568.3	543.9	0.02120	0.065	47.17	15.364	144.23	175.30	0.33921	0.38856	174
175	574.5	550.6	0.02146	0.063	46.60	15.778	144.92	174.95	0.34026	0.38788	175
176	580.7	557.5	0.02174	0.062	46.00	16.220	145.64	174.57	0.34136	0.38716	176
177	587.0	564.5	0.02205	0.060	45.35	16.694	146.39	174.16	0.34249	0.38638	177
178	593.3	571.6	0.02240	0.058	44.65	17.207	147.17	173.70	0.34369	0.38553	178
179	599.6	578.8	0.02278	0.056	43.90	17.766	148.00	173.18	0.34495	0.38461	179
180	605.9	586.2	0.02322	0.054	43.06	18.384	148.89	172.61	0.34630	0.38359	180
181	612.3	593.7	0.02374	0.052	42.12	19.076	149.86	171.95	0.34777	0.38244	181
182	618.6	601.4	0.02437	0.050	41.04	19.869	150.94	171.18	0.34941	0.38113	182
183	624.8	609.3	0.02516	0.048	39.74	20.808	152.19	170.25	0.35131	0.37957	183
184	630.9	617.5	0.02628	0.045	38.05	21.984	153.75	169.07	0.35368	0.37762	184
185	636.4	626.4	0.02817	0.042	35.49	23.648	156.02	167.37	0.35716	0.37487	185