

R-407C pressure–temperature chart

R-32/125/134a (23/25/52) — a zeotropic blend of R-32, R-125 and R-134a, 23 / 25 / 52 % by mass. Also written R407C. Bubble and dew pressures from −70 to 84 °C, every 2 K, in kPa gauge and bar gauge, computed with CoolProp.

SAFETY CLASS A1 Lower toxicity, no flame propagation	GWP, 100-YEAR 1,774 (AR4) · 1,908 (AR6) IPCC, summed from its composition	ODP 0 Montreal Protocol	
CRITICAL POINT 86.20 °C · 4,631.7 kPa abs CoolProp, from its equation of state	BUBBLE POINT −43.63 °C At 101.325 kPa	DEW POINT −36.63 °C At 101.325 kPa	GLIDE 7.00 K Dew less bubble, at 101.325 kPa

BUBBLE · LIQUID					DEW · VAPOUR					BUBBLE · LIQUID					DEW · VAPOUR				
T (°C)	kPa g	bar g	kPa g	bar g	T (°C)	kPa g	bar g	kPa g	bar g	T (°C)	kPa g	bar g	kPa g	bar g	T (°C)	kPa g	bar g	kPa g	bar g
−70	−77.8	−0.78	−87.1	−0.87	8	629.4	6.29	502.9	5.03	8	629.4	6.29	502.9	5.03	8	629.4	6.29	502.9	5.03
−68	−74.7	−0.75	−85.0	−0.85	10	675.1	6.75	543.5	5.44	10	675.1	6.75	543.5	5.44	10	675.1	6.75	543.5	5.44
−66	−71.2	−0.71	−82.6	−0.83	12	722.9	7.23	586.3	5.86	12	722.9	7.23	586.3	5.86	12	722.9	7.23	586.3	5.86
−64	−67.3	−0.67	−79.9	−0.80	14	772.8	7.73	631.1	6.31	14	772.8	7.73	631.1	6.31	14	772.8	7.73	631.1	6.31
−62	−63.0	−0.63	−76.9	−0.77	16	825.0	8.25	678.1	6.78	16	825.0	8.25	678.1	6.78	16	825.0	8.25	678.1	6.78
−60	−58.3	−0.58	−73.6	−0.74	18	879.4	8.79	727.4	7.27	18	879.4	8.79	727.4	7.27	18	879.4	8.79	727.4	7.27
−58	−53.2	−0.53	−70.0	−0.70	20	936.2	9.36	779.0	7.79	20	936.2	9.36	779.0	7.79	20	936.2	9.36	779.0	7.79
−56	−47.6	−0.48	−65.9	−0.66	22	995.4	9.95	833.0	8.33	22	995.4	9.95	833.0	8.33	22	995.4	9.95	833.0	8.33
−54	−41.5	−0.41	−61.4	−0.61	24	1,057.1	10.57	889.4	8.89	24	1,057.1	10.57	889.4	8.89	24	1,057.1	10.57	889.4	8.89
−52	−34.8	−0.35	−56.5	−0.57	26	1,121.3	11.21	948.5	9.48	26	1,121.3	11.21	948.5	9.48	26	1,121.3	11.21	948.5	9.48
−50	−27.5	−0.27	−51.1	−0.51	28	1,188.2	11.88	1,010.1	10.10	28	1,188.2	11.88	1,010.1	10.10	28	1,188.2	11.88	1,010.1	10.10
−48	−19.6	−0.20	−45.2	−0.45	30	1,257.7	12.58	1,074.5	10.74	30	1,257.7	12.58	1,074.5	10.74	30	1,257.7	12.58	1,074.5	10.74
−46	−11.1	−0.11	−38.7	−0.39	32	1,329.9	13.30	1,141.6	11.42	32	1,329.9	13.30	1,141.6	11.42	32	1,329.9	13.30	1,141.6	11.42
−44	−1.8	−0.02	−31.7	−0.32	34	1,404.9	14.05	1,211.7	12.12	34	1,404.9	14.05	1,211.7	12.12	34	1,404.9	14.05	1,211.7	12.12
−42	8.2	0.08	−24.0	−0.24	36	1,482.8	14.83	1,284.6	12.85	36	1,482.8	14.83	1,284.6	12.85	36	1,482.8	14.83	1,284.6	12.85
−40	18.9	0.19	−15.7	−0.16	38	1,563.7	15.64	1,360.7	13.61	38	1,563.7	15.64	1,360.7	13.61	38	1,563.7	15.64	1,360.7	13.61
−38	30.5	0.30	−6.6	−0.07	40	1,647.5	16.48	1,439.9	14.40	40	1,647.5	16.48	1,439.9	14.40	40	1,647.5	16.48	1,439.9	14.40
−36	42.9	0.43	3.2	0.03	42	1,734.5	17.34	1,522.3	15.22	42	1,734.5	17.34	1,522.3	15.22	42	1,734.5	17.34	1,522.3	15.22
−34	56.3	0.56	13.7	0.14	44	1,824.6	18.25	1,608.0	16.08	44	1,824.6	18.25	1,608.0	16.08	44	1,824.6	18.25	1,608.0	16.08
−32	70.5	0.71	25.1	0.25	46	1,917.9	19.18	1,697.2	16.97	46	1,917.9	19.18	1,697.2	16.97	46	1,917.9	19.18	1,697.2	16.97
−30	85.8	0.86	37.4	0.37	48	2,014.5	20.15	1,789.9	17.90	48	2,014.5	20.15	1,789.9	17.90	48	2,014.5	20.15	1,789.9	17.90
−28	102.1	1.02	50.6	0.51	50	2,114.6	21.15	1,886.3	18.86	50	2,114.6	21.15	1,886.3	18.86	50	2,114.6	21.15	1,886.3	18.86
−26	119.5	1.19	64.7	0.65	52	2,218.0	22.18	1,986.4	19.86	52	2,218.0	22.18	1,986.4	19.86	52	2,218.0	22.18	1,986.4	19.86
−24	138.0	1.38	79.9	0.80	54	2,325.0	23.25	2,090.5	20.90	54	2,325.0	23.25	2,090.5	20.90	54	2,325.0	23.25	2,090.5	20.90
−22	157.7	1.58	96.1	0.96	56	2,435.7	24.36	2,198.5	21.99	56	2,435.7	24.36	2,198.5	21.99	56	2,435.7	24.36	2,198.5	21.99
−20	178.6	1.79	113.4	1.13	58	2,550.0	25.50	2,310.7	23.11	58	2,550.0	25.50	2,310.7	23.11	58	2,550.0	25.50	2,310.7	23.11
−18	200.8	2.01	131.9	1.32	60	2,668.1	26.68	2,427.3	24.27	60	2,668.1	26.68	2,427.3	24.27	60	2,668.1	26.68	2,427.3	24.27
−16	224.3	2.24	151.6	1.52	62	2,790.1	27.90	2,548.2	25.48	62	2,790.1	27.90	2,548.2	25.48	62	2,790.1	27.90	2,548.2	25.48
−14	249.2	2.49	172.5	1.73	64	2,916.0	29.16	2,673.9	26.74	64	2,916.0	29.16	2,673.9	26.74	64	2,916.0	29.16	2,673.9	26.74
−12	275.6	2.76	194.8	1.95	66	3,046.0	30.46	2,804.4	28.04	66	3,046.0	30.46	2,804.4	28.04	66	3,046.0	30.46	2,804.4	28.04
−10	303.4	3.03	218.5	2.18	68	3,180.1	31.80	2,940.0	29.40	68	3,180.1	31.80	2,940.0	29.40	68	3,180.1	31.80	2,940.0	29.40
−8	332.7	3.33	243.6	2.44	70	3,318.3	33.18	3,080.9	30.81	70	3,318.3	33.18	3,080.9	30.81	70	3,318.3	33.18	3,080.9	30.81
−6	363.7	3.64	270.1	2.70	72	3,460.9	34.61	3,227.4	32.27	72	3,460.9	34.61	3,227.4	32.27	72	3,460.9	34.61	3,227.4	32.27
−4	396.2	3.96	298.3	2.98	74	3,607.6	36.08	3,379.9	33.80	74	3,607.6	36.08	3,379.9	33.80	74	3,607.6	36.08	3,379.9	33.80
−2	430.5	4.31	328.0	3.28	76	3,758.7	37.59	3,539.0	35.39	76	3,758.7	37.59	3,539.0	35.39	76	3,758.7	37.59	3,539.0	35.39
0	466.6	4.67	359.4	3.59	78	3,913.9	39.14	3,705.1	37.05	78	3,913.9	39.14	3,705.1	37.05	78	3,913.9	39.14	3,705.1	37.05
2	504.4	5.04	392.5	3.93	80	4,073.0	40.73	3,879.4	38.79	80	4,073.0	40.73	3,879.4	38.79	80	4,073.0	40.73	3,879.4	38.79
4	544.1	5.44	427.4	4.27	82	4,235.2	42.35	4,063.3	40.63	82	4,235.2	42.35	4,063.3	40.63	82	4,235.2	42.35	4,063.3	40.63
6	585.8	5.86	464.2	4.64	84	4,397.6	43.98	4,260.5	42.61	84	4,397.6	43.98	4,260.5	42.61	84	4,397.6	43.98	4,260.5	42.61

NOTES	Gauge pressure is absolute pressure less a standard atmosphere, 101.325 kPa; below it, gauge pressure is negative. Bubble: saturated liquid — read subcooling from it. Dew: saturated vapour — read superheat from it.
SOURCES	Computed with CoolProp 7.2.1dev (HEOS backend, MIT licence), from published equations of state. Cite: Bell, I.H., Wronski, J., Quoilin, S., Lemort, V. (2014). Pure and pseudo-pure fluid thermophysical property evaluation and the open-source thermophysical property library CoolProp. Ind. Eng. Chem. Res. 53(6), 2498-2508. GWP, ODP, safety class and composition: UNEP RTOC 2018, DCCEEW (Australian Government), IPCC AR4 (2007), IPCC AR6 (2021), Montreal Protocol, ASHRAE refrigerant designations, GHG Protocol (2024).
ONLINE	kelvin.engineering/refrigerants/r-407c — this table in kPa absolute, and the P–h diagram kelvin.engineering/tools/superheat-subcooling?r=r-407c — superheat and subcooling calculator
VERIFY	These figures must be verified by a qualified professional before they're relied on.