

# Target Superheat

Fixed orifice indoor coils. Measured at the vapor line entering the outdoor unit.

Condenser entering air dry bulb °F	Evaporator entering air wet bulb °F															
	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
40	11	14	17	20	25	29	33	37	40	43	45	47	50	53	56	—
45	11	13	16	19	23	27	31	34	37	40	43	45	47	50	53	57
50	10	13	15	18	22	25	29	32	35	38	40	42	45	47	50	54
55	9	12	14	17	20	23	26	29	32	35	37	40	42	45	48	51
60	7	10	12	15	18	21	24	27	30	33	35	38	40	43	46	49
65	4	6	10	13	16	19	21	24	27	30	33	36	38	41	44	47
70	—	3	6	10	13	16	19	21	24	27	30	33	36	39	42	45
75	—	—	1	6	9	12	15	18	21	24	28	31	34	37	40	43
80	—	—	—	1	5	8	12	15	18	21	25	28	31	35	38	41
85	—	—	—	—	0	6	8	13	15	19	22	26	30	33	37	40
90	—	—	—	—	—	1	5	10	13	16	20	24	27	31	35	39
95	—	—	—	—	—	—	2	6	10	14	18	22	25	29	34	37
100	—	—	—	—	—	—	—	3	8	12	15	20	23	28	32	36
105	—	—	—	—	—	—	—	—	5	9	13	17	22	26	30	35
110	—	—	—	—	—	—	—	—	2	6	11	15	20	24	29	34
115	—	—	—	—	—	—	—	—	—	4	8	14	18	23	28	33

Use caution at conditions under five degrees superheat, compressor flooding may occur. Consider weighing in correct charge.

## Evaporator Temperature Difference

With entering evaporator air dry bulb temperature between 68° and 88° and a relative humidity of...

	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	90%+
TD across coil should be...	25°- 29°	24°-27°	20°- 23°	18°- 21°	14°-18°	12°-17°	10°-16°	9°-14°	7°-13°

This chart illustrates the effect that humidity has on an evaporator's temperature difference. The higher the latent load, the lower the sensible capacity, and thus a lower sensible temperature split. Chart assumes correct charge and approximately 400 cfm/ton.

## Condenser Temperatures

System SEER	Condenser Saturation Temperature Rise Above Outdoor Ambient If higher than chart indicates, correct airflow, overcharge or non condensables.	Subcooling
8 or less	25° to 35°	Fixed orifice: 3° to 30° Thermal Expansion Valve: consult manufactures data (4° to 20°) or use 10° to 15°
9 or 10	20° to 30°	
11 or 12	15° to 25°	
13 and above	10° to 20°	

Temperatures higher than chart values can indicate low condenser airflow, overcharge, or non condensables. Condenser saturation temperature over ambient is based on the area of the outdoor coil, the greater the area, the lower the temperature rise. Note that a coil with more capacity than the compressor, as well as low ambient temperatures, can have a lower rise than the chart indicates. Long lines and high indoor unit elevations can have a higher temperature rise than the chart indicates.