

# Target Superheat

Fixed orifice indoor coils. Measured at the insulated 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%+
<b>TD</b> across coil should be...	<b>25°- 29°</b>	<b>24°-27°</b>	<b>20°- 23°</b>	<b>18°- 21°</b>	<b>14°-18°</b>	<b>12°-17°</b>	<b>10°-16°</b>	<b>9°-14°</b>	<b>7°-13°</b>

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 Temperature Rise

# Subcooling

System SEER	Condenser Saturation Temperature Over Outdoor Ambient		Thermal Expansion Valve: consult manufactures data (4° to 20°) or charge to 12°  Fixed orifice subcooling will vary with conditions from 0° up to 10° or 35° (depending on SEER)
8 or less	25° to 35°		
9 or 10	20° to 30°		
11 or 12	15° to 25°		
13 and above	10° to 20°		

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.