

1 and 2 Row Hot Water Coil Data - IP Units

Inlet Size 8

Rows	Coil		Air Flow Rate, cfm										
	gpm	HD Loss	40	75	100	175	250	325	400	475	550	625	700
1 Row	0.5	0.2	3.0	4.4	5.2	7.0	8.1	9.0	9.6	10.2	10.6	11.0	11.3
single	1	0.59	3.1	4.8	5.8	8.0	9.6	10.8	11.8	12.6	13.4	14.0	14.5
circuit	2	1.77	3.2	5.1	6.1	8.6	10.6	12.1	13.4	14.5	15.4	16.3	17.0
	3	3.37	3.2	5.1	6.2	8.9	10.9	12.6	14.0	15.2	16.3	17.2	18.1
	Through the Coil ΔPs		0.00	0.00	0.01	0.02	0.04	0.06	0.09	0.12	0.15	0.19	0.24
2 Row	1	0.25	4.6	7.5	9.2	13.0	15.7	17.8	19.4	20.8	21.9	22.9	23.7
multi-circuit	2	0.79	4.7	7.9	9.8	14.5	18.1	20.9	23.3	25.3	27.0	28.5	29.8
	4	2.56	4.8	8.2	10.2	15.4	19.5	22.9	25.8	28.4	30.6	32.6	34.4
	6	5.16	4.8	8.3	10.4	15.8	20.1	23.7	26.9	29.6	32.1	34.3	36.3
Through the Coil ΔPs		0.00	0.01	0.01	0.04	0.08	0.12	0.18	0.25	0.32	0.4	0.5	

Unit Size 10

Rows	Coil		Air Flow Rate cfm										
	gpm	HD Loss	60	100	200	300	400	500	600	700	800	900	1000
1 Row	1	0.19	4.5	6.3	9.3	11.4	12.9	14.1	15	15.8	16.5	17.1	17.6
single	2	0.6	4.7	6.7	10.4	13	15	16.6	18	19.2	20.2	21.2	22
circuit	4	2.02	4.8	7.0	11	14	16.4	18.4	20.1	21.6	22.9	24.1	25.2
	6	4.15	4.9	7.1	11.3	14.4	17	19.1	21	22.6	24.1	25.4	26.6
	Through the Coil ΔPs		0.00	0.00	0.01	0.03	0.04	0.07	0.09	0.12	0.15	0.19	0.23
2 Row	1	0.32	6.7	9.9	15.7	19.5	22.4	24.6	26.3	27.8	29.0	30.0	30.9
multi-circuit	2	1	7	10.6	17.5	22.7	26.7	30.0	32.7	35.1	37.1	38.9	40.5
	4	3.15	7.1	11.0	18.7	24.7	29.6	33.7	37.3	40.4	43.2	45.7	48.0
	6	6.26	7.2	11.1	19.1	25.4	30.7	35.2	39.1	42.6	45.7	48.6	51.2
Through the Coil ΔPs		0.00	0.01	0.03	0.05	0.09	0.14	0.19	0.25	0.32	0.4	0.48	

Unit Size 12

Rows	Coil		Air Flow Rate cfm										
	gpm	HD Loss	90	150	300	450	600	750	900	1050	1200	1350	1500
1 Row	1	0.23	6.4	8.9	12.9	15.5	17.4	18.8	20.0	20.9	21.7	22.4	23.0
multi-circuit	2	0.72	6.8	9.6	14.7	18.2	20.8	23.0	24.8	26.3	27.6	28.7	29.8
	4	2.35	7.0	10.1	15.8	19.9	23.2	25.9	28.2	30.2	32.0	33.6	35.0
	6	4.77	7.1	10.3	16.2	20.6	24.2	27.1	29.7	31.9	33.9	35.6	37.3
Through the Coil ΔPD		0.00	0.00	0.01	0.03	0.05	0.08	0.11	0.14	0.18	0.22	0.27	
2 Row	1	0.4	9.7	14.0	21.4	26.1	29.4	31.8	33.7	35.3	36.5	37.6	38.5
multi-circuit	2	1.23	10.2	15.3	24.8	31.5	36.6	40.7	44.1	46.9	49.4	51.5	53.3
	4	3.82	10.5	16.0	26.9	35.1	41.7	47.2	51.9	56.0	59.6	62.8	65.7
	6	7.49	10.6	16.3	27.7	36.5	43.8	49.9	55.2	59.9	64.0	67.7	71.1
Through the Coil ΔPs		0.00	0.01	0.03	0.06	0.11	0.16	0.22	0.3	0.38	0.46	0.56	

Unit Size 14

Rows	Coil		Air Flow Rate cfm										
	gpm	HD Loss	200	400	600	800	1000	1200	1400	1600	2000	2250	2500
1 Row	1	0.29	12	17.3	22.8	24.6	25.9	27.1	28	28.8	29.5	30.2	30.9
multi-circuit	2	0.89	13.3	20	28.2	31	33.3	35.2	36.9	38.4	39.7	41.1	42.3
	4	2.85	14	21.8	32	35.7	38.8	41.5	43.9	46	47.9	50.1	52
	6	5.69	14.3	22.5	33.5	37.6	41.1	44.2	46.9	49.3	51.6	54	56.3
Through the Coil ΔPD		0	0.01	0.05	0.07	0.1	0.13	0.16	0.2	0.24	0.3	0.36	
2 Row	1	0.22	18.2	26.8	35.3	37.7	39.5	41	42.1	43.1	43.9	44.8	45.5
multi-circuit	2	0.68	20.5	32.5	46.6	51.3	55	58.1	60.7	62.9	64.9	67	68.8
	4	2.22	21.8	36.2	55.3	62.2	68	72.9	77.2	81	84.4	88.2	91.5
	6	4.43	22.3	37.6	58.9	66.9	73.7	79.6	84.8	89.5	93.7	98.5	102.7
Through the Coil ΔPs		0.01	0.03	0.1	0.14	0.2	0.26	0.34	0.42	0.5	0.62	0.75	

Performance Notes:

- Tabulated values are in MBH (thousands of Btu per hour).
- Tables are based on a temperature difference of 125 °F (180 °F entering water temperature and 55 °F entering air temperature). For other temperature differences, multiply MBH values by factors as listed above.
- Minimum air and water flow values are based on ASHRAE recommendations for coil selection. For selections outside these tabulated air or water flow values, please consult your Price representatives.
- Do not select coils for a leaving air temperature above 120 °F.
- HD (Head) loss is in ft of water.
- Through the Coil ΔPs is the pressure drop in in. of water across the coil.
- Air Temperature rise = ATR, $ATR(^{\circ}F) = 927 \times MBH/cfm$.
- Water Temperature Drop = WTD, $WTD(^{\circ}F) = 2.04 \times MBH/gpm$.
- Values in tables are listed for 0 ft of altitude and no glycol in the system.
- Connections: 1 Row Size 6 - 1/2 in. OD male solder, All others, 1 Row, 7/8 in. OD male solder. 2 Row - 7/8 in. OD male solder.

Air Volume Control Valves VV Series



1 and 2 Row Hot Water Coil Data - IP Units

Unit Size 210			Air Flow Rate cfm										
Rows	Coil gpm	HD Loss	120	200	400	600	800	1000	1200	1400	1600	1800	2000
1 Row single circuit	1	0.28	8.6	11.8	17.0	20.3	22.6	24.4	25.7	26.9	27.8	28.6	29.3
	2	0.89	9.2	13	19.7	24.4	27.9	30.6	32.9	34.9	36.6	38.0	39.3
	4	2.84	9.5	13.7	21.5	27.1	31.5	35.2	38.3	41.0	43.4	45.5	47.4
	6	5.68	9.6	14.0	22.1	28.2	33.0	37.1	40.6	43.6	46.3	48.7	50.9
	Through the Coil ΔPs		0.00	0.00	0.01	0.03	0.04	0.07	0.09	0.12	0.15	0.19	0.23
2 Row multi- circuit	1.5	0.42	13.2	19.3	29.9	36.8	41.7	45.4	48.3	50.6	52.6	54.3	55.7
	3	1.35	13.9	20.9	34.2	43.9	51.3	57.3	62.3	66.5	70.1	73.2	76.0
	6	4.43	14.2	21.8	36.9	48.5	57.9	65.8	72.6	78.5	83.7	88.4	92.6
	9	9	14.4	22.1	37.9	50.3	60.5	69.2	76.8	83.5	89.5	94.9	99.8
	Through the Coil ΔPs		0.00	0.01	0.03	0.05	0.09	0.14	0.19	0.25	0.32	0.4	0.48

Unit Size 212			Air Flow Rate cfm										
Rows	Coil gpm	HD Loss	180	300	600	900	1200	1500	1800	2100	2400	2700	3000
1 Row multi- circuit	1	0.31	7.3	10.4	15.7	19.1	21.7	23.7	25.2	26.6	27.7	28.6	29.4
	2	0.97	7.7	11.2	17.7	22.4	26.1	29.1	31.6	33.7	35.6	37.3	38.7
	4	3.09	7.9	11.7	19.0	24.5	29.0	32.8	36.1	38.9	41.5	43.8	45.9
	6	6.13	8.0	11.9	19.5	25.3	30.2	34.3	37.9	41.1	44.0	46.6	49.0
	Through the Coil ΔPs		0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.07	0.08	0.1
2 Row multi- circuit	1.5	0.46	10.6	16.1	26.2	33.3	38.7	42.8	46.2	48.9	51.2	53.2	54.9
	3	1.46	11.0	17.1	29.2	38.6	46.1	52.4	57.7	62.3	66.3	69.9	73.1
	6	4.75	11.2	17.6	31.0	41.8	51.0	58.9	65.8	71.9	77.4	82.4	87.0
	9	9.6	11.3	17.8	31.6	43.1	52.8	61.4	69.0	75.8	82.0	87.6	92.8
	Through the Coil ΔPs		0.00	0.00	0.01	0.02	0.04	0.06	0.08	0.11	0.14	0.17	0.21

Unit Size 214			Air Flow Rate cfm										
Rows	Coil gpm	HD Loss	400	800	1200	1600	2000	2400	2800	3200	4000	4500	5000
1 Row multi- circuit	1	0.43	21	28.5	32.7	35.4	37.3	38.8	39.9	40.8	42.2	42.9	43.4
	2	1.29	24.5	35.7	42.9	48.1	52	55.1	57.7	59.9	63.3	65.1	66.5
	4	3.98	26.7	40.7	50.5	58	64.1	69.1	73.3	77	83.1	86.3	89.1
	6	7.78	27.5	42.7	53.7	62.3	69.3	75.3	80.4	84.9	92.5	96.6	100.1
	Through the Coil ΔPs		0	0.01	0.03	0.05	0.08	0.1	0.14	0.18	0.26	0.32	0.39
2 Row multi- circuit	1.5	0.62	34.8	50	58.5	64	67.8	70.6	72.7	74.4	76.9	78.1	79
	3	1.89	39.9	62.3	77.1	87.9	96	102.5	107.8	112.2	119.1	122.5	125.4
	6	5.95	42.9	70.5	90.7	106.5	119.3	130	139.1	146.9	159.9	166.7	172.6
	9	11.79	44	73.7	96.3	114.4	129.4	142.3	153.4	163.1	179.6	188.3	196.1
	Through the Coil ΔPs		0.01	0.03	0.06	0.11	0.16	0.22	0.29	0.37	0.55	0.68	0.83

Unit Size 312			Air Flow Rate cfm										
Rows	Coil gpm	HD Loss	270	500	750	1000	1500	2000	2500	3000	3500	4000	4500
1 Row multi- circuit	1	0.42	9.9	13.9	20.7	25.1	28.2	30.5	32.4	33.9	35.1	36.2	37.1
	2	1.27	10.5	15.3	24.1	30.4	35.2	39.1	42.4	45.2	47.5	49.6	51.5
	4	3.94	10.8	16.1	26.2	33.8	40.1	45.3	49.8	53.8	57.3	60.4	63.3
	6	7.72	11.0	16.4	27	35.2	42	47.8	52.9	57.4	61.4	65.1	68.4
	Through the Coil ΔPs		0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.07
2 Row multi- circuit	1.5	0.6	14.1	21.2	34.2	43.0	49.4	54.2	57.9	61.0	63.5	65.5	67.3
	3	1.85	14.7	22.8	39.1	51.4	61.2	69.3	76.0	81.8	86.8	91.1	95.0
	6	5.89	15.1	23.7	42.0	56.7	69.2	79.9	89.2	97.5	104.9	111.6	117.7
	9	11.72	15.2	24.1	43.0	58.8	72.3	84.1	94.6	104.0	112.5	120.3	127.5
	Through the Coil ΔPs		0.00	0.00	0.01	0.02	0.03	0.04	0.06	0.08	0.1	0.12	0.15

CRITICAL CONTROLS

1 and 2 Row Hot Water Coil Data - IP Units

Unit Size 314

Rows	Coil gpm	HD Loss	Air Flow Rate cfm										
			600	1200	1800	2400	3000	3600	4500	5000	5800	6500	7500
1 Row single circuit	1	0.19	29.8	37.8	41.9	44.5	46.2	47.5	48.9	49.5	50.4	50.9	51.6
	2	0.71	36.4	50.1	58.2	63.8	67.9	71.1	74.9	76.6	78.9	80.6	82.6
	4	2.71	40.9	59.3	71.4	80.4	87.4	93.1	100.1	103.4	107.9	111.3	115.6
	6	5.99	42.6	63.1	77.1	87.8	96.4	103.5	112.3	116.6	122.4	126.9	132.6
	Through the Coil ΔPs		0	0.013	0.026	0.043	0.063	0.087	0.127	0.152	0.197	0.25	0.307
2 Row multi- circuit	2	0.64	48.2	68.5	79.7	86.9	91.9	95.6	99.5	101.2	103.4	104.9	106.7
	3	1.4	53.1	79.3	95.5	106.7	114.9	121.3	128.5	131.6	135.9	138.9	142.5
	6	5.35	58.6	93.3	117.6	136	150.1	162.5	177	183.7	192.9	199.9	208.3
	9	9.32	60.6	98.9	127	149.1	167.1	182.1	200.9	209.8	222.4	231.9	243.8
	Through the Coil ΔPs		0.01	0.03	0.06	0.9	0.14	0.18	0.27	0.32	0.41	0.51	0.64

Correction Factors - 1 and 2 Row Hot Water Coils

EAT	40	50	60	70	80	100	125	140	150	160	180	200
Factor	0.32	0.4	0.48	0.56	0.64	0.8	1	1.12	1.2	1.28	1.44	1.6