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INCHEON, Korea, Republic of

WMO#: **471120**

Lat: **37.47N** Long: **126.63E** Elev: **70** StdP: **100.49** Time Zone: **9.00 (JPN)** Period: **86-10** WBAN: **99999**

Annual Heating and Humidification Design Conditions

	Coldest Month	Heating DB		Humidification DP/MCDB and HR						Coldest month WS/MCDB				MCWS/PCWD to 99.6% DB		
				99.6%			99%			0.4%		1%				
		99.6%	99%	DP	HR	MCDB	DP	HR	MCDB	WS	MCDB	WS	MCDB	MCWS	PCWD	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	
(1)	1	-10.1	-8.2	-20.3	0.6	-7.7	-18.4	0.7	-6.0	12.0	-1.9	10.0	-2.5	4.0	0	(1)

Annual Cooling, Dehumidification, and Enthalpy Design Conditions

	Hottest Month	Hottest Month DB Range	Cooling DB/MCWB						Evaporation WB/MCDB						MCWS/PCWD to 0.4% DB		
			0.4%		1%		2%		0.4%		1%		2%				
			DB	MCWB	DB	MCWB	DB	MCWB	WB	MCDB	WB	MCDB	WB	MCDB	MCWS	PCWD	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	
(2)	8	5.7	30.9	24.6	29.6	23.8	28.5	23.1	25.7	29.0	25.1	28.0	24.5	27.2	2.8	290	(2)

	Dehumidification DP/MCDB and HR									Enthalpy/MCDB						Hours 8 to 4 & 12.8/20.6	
	0.4%			1%			2%			0.4%		1%		2%			
	DP	HR	MCDB	DP	HR	MCDB	DP	HR	MCDB	Enth	MCDB	Enth	MCDB	Enth	MCDB		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	
(3)	24.8	20.0	27.5	24.2	19.3	26.9	23.6	18.6	26.4	79.9	29.0	77.2	28.1	74.8	27.3	737	(3)

Extreme Annual Design Conditions

	Extreme Annual WS			Extreme Max WB	Extreme Annual DB				n-Year Return Period Values of Extreme DB								
					Mean		Standard deviation		n=5 years		n=10 years		n=20 years		n=50 years		
	1%	2.5%	5%		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	
(4)	9.2	7.7	6.5	29.6	-12.3	32.9	2.5	1.8	-14.1	34.3	-15.6	35.3	-17.0	36.4	-18.8	37.7	(4)

Monthly Climatic Design Conditions

				Annual (d)	Jan (e)	Feb (f)	Mar (g)	Apr (h)	May (i)	Jun (j)	Jul (k)	Aug (l)	Sep (m)	Oct (n)	Nov (o)	Dec (p)	
(5)	Temperatures, Degree-Days and Degree-Hours	Tavg		12.6	-1.5	0.9	5.6	11.7	16.8	21.2	24.3	25.4	21.4	15.4	7.9	1.3	(5)
(6)		Sd			3.88	3.85	3.15	3.39	2.55	2.07	2.12	2.14	2.56	3.33	4.22	4.16	(6)
(7)		HDD10.0		1130	356	257	138	20	0	0	0	0	0	4	87	268	(7)
(8)		HDD18.3		2707	614	489	394	202	62	3	0	0	5	99	313	527	(8)
(9)		CDD10.0		2080	0	1	3	70	210	336	443	478	343	171	24	1	(9)
(10)		CDD18.3		615	0	0	0	2	13	89	185	220	98	8	0	0	(10)
(11)		CDH23.3		3557	0	0	0	8	57	317	1084	1687	396	8	0	0	(11)
(12)		CDH26.7		760	0	0	0	1	6	42	232	429	51	0	0	0	(12)
(13)	Precipitation	PrecAvg		1171	22	23	40	87	83	108	285	252	152	48	50	20	(13)
(14)		PrecMax		1588	56	90	82	354	243	291	525	761	540	169	124	60	(14)
(15)		PrecMin		707	2	1	5	7	7	9	137	67	15	7	4	4	(15)
(16)		PrecSD		247.2	14.9	22.8	23.9	86.3	62.4	85.4	103.8	168.9	128.7	36.2	29.8	12.6	(16)
(17)	Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB		9.2	13.0	16.0	24.2	27.2	29.6	33.0	32.9	29.7	24.5	18.7	12.5	(17)
(18)			MCWB		6.1	9.1	9.2	14.7	17.0	20.0	25.2	25.6	22.5	17.1	14.2	8.2	(18)
(19)		2%	DB		6.7	9.6	13.8	20.8	24.9	27.9	30.5	31.5	28.2	22.8	16.6	10.4	(19)
(20)			MCWB		3.9	6.1	8.3	13.1	16.6	19.9	24.8	25.0	21.6	16.6	12.4	7.4	(20)
(21)		5%	DB		5.2	7.7	11.9	18.9	23.1	26.4	29.0	30.2	26.8	21.5	15.2	8.7	(21)
(22)			MCWB		2.8	4.4	7.1	12.2	16.1	19.6	24.0	24.5	20.8	16.0	11.6	6.0	(22)
(23)		10%	DB		3.8	6.2	10.3	17.0	21.4	25.1	27.8	29.1	25.6	20.1	13.9	7.3	(23)
(24)			MCWB		1.4	3.4	6.3	11.1	15.3	19.2	23.4	23.9	20.3	15.5	10.7	4.7	(24)
(25)	Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB		6.8	10.1	11.7	17.4	19.4	22.7	26.5	27.0	24.9	19.2	15.6	9.7	(25)
(26)			MCDB		8.6	12.1	13.9	20.6	23.4	25.2	30.2	31.1	27.3	21.6	17.6	11.3	(26)
(27)		2%	WB		4.6	6.4	9.2	14.9	18.3	22.0	25.5	26.0	23.6	18.2	13.9	7.8	(27)
(28)			MCDB		6.2	8.4	11.9	19.0	21.9	24.8	28.9	29.4	25.9	20.8	15.7	9.8	(28)
(29)		5%	WB		3.1	4.9	7.8	13.2	17.4	21.2	24.8	25.4	22.7	17.4	12.3	6.3	(29)
(30)			MCDB		4.8	7.3	10.8	17.2	21.1	24.3	27.8	28.5	25.2	20.2	14.5	8.5	(30)
(31)		10%	WB		1.7	3.7	6.7	11.9	16.4	20.5	24.2	24.9	21.5	16.4	10.9	4.9	(31)
(32)			MCDB		3.4	5.8	9.7	15.5	20.1	23.6	26.8	27.7	24.4	19.4	13.4	7.0	(32)
(33)	Mean Daily Temperature Range		MDBR		6.1	6.4	6.7	7.4	7.5	6.6	5.2	5.7	7.1	7.6	6.8	6.4	(33)
(34)		5% DB	MCDBR		7.0	7.5	8.6	10.2	10.1	8.8	7.0	7.3	8.2	8.5	7.7	7.3	(34)
(35)			MCWBR		5.4	5.0	5.2	4.9	4.5	3.6	3.2	3.2	3.6	4.3	5.3	5.7	(35)
(36)		5% WB	MCDBR		6.4	6.8	7.7	8.6	8.2	6.6	5.8	5.9	6.2	7.2	6.7	6.7	(36)
(37)			MCWBR		5.7	5.1	5.5	5.3	4.7	3.6	3.0	2.9	3.6	4.7	5.5	6.1	(37)
(38)	Clear Sky Solar Irradiance	taub			0.400	0.470	0.531	0.557	0.584	0.600	0.540	0.445	0.429	0.435	0.402	0.392	(38)
(39)		taud			2.197	1.975	1.823	1.757	1.692	1.694	1.910	2.226	2.257	2.181	2.290	2.281	(39)
(40)		Ebn,noon			753	735	729	740	728	716	758	828	819	765	749	736	(40)
(41)		Edh,noon			109	153	196	221	240	239	192	137	125	123	99	95	(41)

Nomenclature: See separate page