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LJUBLJANA/BRNIK, Slovenia

WMO#: **140140**

Lat: **46.22N** Long: **14.48E** Elev: **385** StdP: **96.78** Time Zone: **1.00 (EUW)** 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	-13.0	-10.1	-15.9	1.0	-8.6	-13.5	1.2	-6.7	6.8	1.2	5.5	0.6	0.7	290	(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)	7	12.7	30.2	20.3	28.9	19.9	27.1	19.3	21.3	27.9	20.5	27.1	19.7	25.9	2.8	120	(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)	19.1	14.5	24.3	18.1	13.7	23.0	17.5	13.1	22.3	63.7	28.0	60.9	27.1	58.2	26.0	921	(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)	5.9	4.9	4.1	25.5	-16.5	32.8	3.6	1.7	-19.1	34.0	-21.2	35.0	-23.2	35.9	-25.8	37.1	(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		9.6	-1.0	0.9	4.9	9.3	14.4	17.7	19.7	19.3	14.7	10.3	4.6	-0.4	(5)
(6)		Sd			4.20	4.12	3.97	3.19	3.01	3.33	2.79	2.91	3.03	3.72	4.35	4.37	(6)
(7)		HDD10.0		1344	342	255	162	49	3	0	0	0	2	42	168	322	(7)
(8)		HDD18.3		3349	600	488	417	271	126	52	19	23	113	248	413	579	(8)
(9)		CDD10.0		1192	0	0	3	28	139	230	299	289	143	53	6	1	(9)
(10)		CDD18.3		154	0	0	0	0	4	31	60	54	5	0	0	0	(10)
(11)		CDH23.3		1711	0	0	0	3	97	359	653	541	56	1	0	0	(11)
(12)		CDH26.7		451	0	0	0	0	14	89	191	153	3	0	0	0	(12)
(13)	Precipitation	PrecAvg		1500	97	93	110	127	129	159	139	143	143	143	167	119	(13)
(14)		PrecMax		1196	106	116	170	148	215	216	212	192	248	226	158	113	(14)
(15)		PrecMin		676	1	4	10	27	28	46	62	23	18	1	31	6	(15)
(16)		PrecSD		118.7	28.5	28.4	35.5	32.3	45.0	48.6	34.9	47.8	56.7	60.3	36.7	26.4	(16)
(17)	Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB		10.2	15.1	19.9	23.2	28.2	31.1	33.0	32.1	27.0	22.2	16.1	12.2	(17)
(18)			MCWB		7.9	8.9	10.8	13.3	18.2	20.7	20.6	20.6	19.6	16.5	12.9	10.5	(18)
(19)		2%	DB		8.5	11.8	16.8	21.0	25.9	29.1	30.2	30.1	25.0	20.1	14.0	9.9	(19)
(20)			MCWB		6.6	7.0	10.0	12.7	16.9	20.0	20.4	20.2	18.3	15.6	11.9	8.7	(20)
(21)		5%	DB		6.9	9.1	14.2	19.0	24.0	27.2	28.9	28.2	23.1	18.1	12.2	7.2	(21)
(22)			MCWB		5.4	5.9	8.6	11.8	15.9	19.2	19.9	19.8	17.2	14.4	10.4	6.5	(22)
(23)		10%	DB		5.0	7.2	12.0	16.8	22.0	25.2	27.0	26.5	21.1	16.2	11.0	5.2	(23)
(24)			MCWB		3.8	4.6	7.7	10.7	14.8	18.0	19.4	19.2	16.1	13.5	9.7	4.6	(24)
(25)	Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB		8.9	9.1	12.2	14.8	19.3	22.0	22.7	22.2	20.2	17.4	13.5	11.0	(25)
(26)			MCDB		9.7	13.1	17.4	21.2	26.3	28.4	29.6	28.8	25.3	21.1	15.6	12.4	(26)
(27)		2%	WB		7.0	7.7	10.5	13.3	17.8	20.8	21.4	21.1	18.9	16.2	12.1	8.8	(27)
(28)			MCDB		8.1	10.4	15.1	19.2	24.3	27.6	28.1	27.7	23.6	19.3	13.8	9.6	(28)
(29)		5%	WB		5.5	6.4	9.5	12.2	16.6	19.7	20.5	20.3	17.9	15.1	11.2	6.6	(29)
(30)			MCDB		6.4	8.6	13.2	17.6	22.4	26.1	27.1	26.7	22.1	17.3	12.5	7.1	(30)
(31)		10%	WB		3.9	4.9	8.4	11.3	15.5	18.6	19.7	19.5	16.8	14.0	10.0	4.8	(31)
(32)			MCDB		4.7	6.7	11.6	16.0	20.7	24.3	26.0	25.5	20.4	16.0	11.0	5.2	(32)
(33)	Mean Daily Temperature Range		MDBR		7.3	9.9	11.0	11.5	12.4	11.7	12.7	12.0	10.9	9.7	7.3	6.2	(33)
(34)		5% DB	MCDBR		9.7	13.4	15.8	16.7	16.3	15.2	15.7	15.3	13.7	12.1	9.2	7.8	(34)
(35)			MCWBR		7.5	9.1	9.5	9.0	8.1	7.1	7.0	6.8	7.6	7.7	6.7	6.3	(35)
(36)		5% WB	MCDBR		8.2	12.1	13.6	14.6	14.9	14.3	14.4	13.9	12.5	10.3	7.7	6.9	(36)
(37)			MCWBR		6.7	8.6	8.6	8.2	7.7	6.9	6.9	6.8	7.1	6.8	5.9	5.8	(37)
(38)	Clear Sky Solar Irradiance	taub			0.327	0.337	0.375	0.388	0.369	0.373	0.377	0.383	0.358	0.340	0.335	0.330	(38)
(39)		taud			2.464	2.386	2.298	2.246	2.278	2.273	2.310	2.322	2.459	2.524	2.529	2.510	(39)
(40)		Ebn,noon			769	832	845	867	895	891	883	862	858	824	756	724	(40)
(41)		Edh,noon			69	89	112	129	129	130	124	118	94	77	64	60	(41)

Nomenclature: See separate page