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PELLO, Finland

WMO#: **028440**

Lat: **66.80N** Long: **24.00E** Elev: **84** StdP: **100.32** Time Zone: **2.00 (EUE)** 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	-31.5	-28.9	-33.4	0.2	-31.0	-31.4	0.2	-28.8	8.3	-5.4	7.1	-5.5	0.3	320	(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	8.7	24.8	16.3	22.8	15.4	21.0	14.9	18.0	22.1	16.7	20.7	15.7	19.4	3.0	180	(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)	16.2	11.7	19.6	15.1	10.8	18.2	14.1	10.1	17.2	51.0	22.1	47.2	20.8	44.2	19.4	568	(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)	7.1	6.1	5.3	22.1	-33.8	27.1	3.3	1.5	-36.1	28.2	-38.1	29.1	-39.9	29.9	-42.3	31.0	(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		0.6	-12.3	-12.1	-6.5	-0.3	6.5	12.5	15.2	12.7	7.0	0.5	-6.3	-10.6	(5)
(6)		Sd			8.32	7.78	5.88	4.33	3.90	3.60	2.97	3.54	3.53	5.48	6.59	8.35	(6)
(7)		HDD10.0		3812	693	619	510	309	124	16	1	14	103	295	488	639	(7)
(8)		HDD18.3		6486	951	853	768	559	368	177	103	178	340	553	738	898	(8)
(9)		CDD10.0		379	0	0	0	0	14	91	163	97	13	0	0	0	(9)
(10)		CDD18.3		12	0	0	0	0	0	2	7	2	0	0	0	0	(10)
(11)		CDH23.3		122	0	0	0	0	4	36	60	22	0	0	0	0	(11)
(12)		CDH26.7		7	0	0	0	0	0	2	4	1	0	0	0	0	(12)
(13)	Precipitation	PrecAvg		523	33	28	32	25	29	47	66	68	50	45	42	33	(13)
(14)		PrecMax		708	56	70	60	70	59	83	96	108	97	115	78	94	(14)
(15)		PrecMin		360	9	6	4	6	4	12	13	19	17	6	15	10	(15)
(16)		PrecSD		70.2	13.2	14.7	14.5	13.8	11.3	18.8	21.2	23.0	22.0	22.4	15.4	15.3	(16)
(17)	Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB		4.3	4.6	7.6	12.7	23.6	26.6	27.1	25.6	18.4	11.7	6.5	4.7	(17)
(18)			MCWB		2.4	2.3	3.7	6.8	13.6	16.4	18.1	17.7	13.8	9.6	5.6	2.5	(18)
(19)		2%	DB		1.6	1.6	5.0	10.4	19.7	24.1	25.1	23.4	16.2	10.4	4.2	2.4	(19)
(20)			MCWB		0.4	0.3	1.8	5.5	11.8	15.0	16.9	16.4	12.5	8.9	3.4	1.3	(20)
(21)		5%	DB		0.3	0.3	2.6	8.3	16.0	21.9	23.0	21.0	14.2	9.1	2.8	1.2	(21)
(22)			MCWB		-0.4	-0.3	0.3	4.0	9.7	14.2	16.1	15.7	11.7	7.8	2.2	0.5	(22)
(23)		10%	DB		-1.2	-1.0	1.0	6.3	13.7	19.6	21.2	18.9	12.7	7.5	1.6	0.4	(23)
(24)			MCWB		-1.8	-1.7	-0.2	2.7	8.3	12.9	15.5	14.8	10.5	6.4	1.1	-0.2	(24)
(25)	Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB		2.6	2.6	3.9	7.8	14.6	18.1	20.0	19.1	15.0	10.6	5.8	2.8	(25)
(26)			MCDB		3.9	4.2	7.7	11.1	21.3	24.1	25.0	24.0	16.9	11.0	6.3	3.9	(26)
(27)		2%	WB		0.7	0.6	2.0	5.8	12.3	16.1	18.4	17.6	13.4	9.2	3.6	1.6	(27)
(28)			MCDB		1.3	1.3	4.3	9.6	18.6	22.3	22.5	21.1	15.1	10.1	4.1	2.2	(28)
(29)		5%	WB		-0.2	-0.3	0.8	4.4	10.3	14.6	17.1	16.3	12.1	7.8	2.4	0.6	(29)
(30)			MCDB		0.3	0.3	2.0	7.8	15.3	20.2	21.3	19.5	13.9	8.9	2.7	1.1	(30)
(31)		10%	WB		-1.8	-1.7	0.0	3.1	8.7	13.6	16.1	15.2	10.7	6.4	1.2	-0.1	(31)
(32)			MCDB		-1.2	-1.0	0.9	5.7	12.9	18.5	19.9	18.2	12.3	7.4	1.5	0.4	(32)
(33)	Mean Daily Temperature Range		MDBR		8.5	9.0	9.8	9.2	9.1	9.0	8.7	8.7	8.1	5.9	5.9	7.8	(33)
(34)		5% DB	MCDBR		7.5	6.8	10.6	11.6	13.8	13.0	11.9	11.9	9.5	5.9	4.7	6.7	(34)
(35)			MCWBR		7.0	6.1	8.1	7.4	7.3	5.9	5.2	6.0	6.1	4.7	4.4	6.2	(35)
(36)		5% WB	MCDBR		7.5	6.6	8.4	10.7	12.6	11.1	9.7	9.9	8.1	5.0	4.2	6.3	(36)
(37)			MCWBR		7.0	6.1	6.6	7.0	7.0	5.6	5.1	5.4	5.5	4.3	4.1	6.0	(37)
(38)	Clear Sky Solar Irradiance	taub			0.370	0.335	0.342	0.329	0.301	0.313	0.324	0.310	0.306	0.298	0.307	N/A	(38)
(39)		taud			2.489	2.286	2.232	2.209	2.423	2.437	2.434	2.503	2.532	2.552	2.600	N/A	(39)
(40)		Ebn,noon			112	492	695	821	902	896	872	851	764	576	155	N/A	(40)
(41)		Edh,noon			14	48	81	105	94	96	94	79	60	36	10	N/A	(41)

Nomenclature: See separate page