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BORDEAUX MERIGNAC, France

WMO#: **075100**

Lat: **44.83N** Long: **0.68W** Elev: **61** StdP: **100.59** 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	-3.8	-2.1	-7.0	2.1	-0.5	-5.2	2.4	0.4	12.6	12.2	10.8	11.5	1.9	40	(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	11.0	32.8	21.3	30.8	20.5	28.8	19.8	22.8	29.9	21.8	28.2	20.9	26.4	3.5	100	(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)	20.8	15.6	25.5	19.8	14.6	24.3	18.9	13.8	23.4	67.6	29.8	63.8	28.5	60.4	26.5	1213	(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)	9.8	8.4	7.2	28.6	-6.4	35.9	2.5	1.5	-8.2	37.0	-9.7	37.9	-11.1	38.8	-13.0	39.9	(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		13.8	6.6	7.5	10.3	12.2	16.4	19.3	21.1	21.5	18.3	14.9	9.7	7.1	(5)
(6)		Sd			4.18	3.77	3.38	3.21	3.42	3.35	3.01	3.08	3.05	3.43	3.54	4.08	(6)
(7)		HDD10.0		408	117	84	38	13	1	0	0	0	0	5	46	106	(7)
(8)		HDD18.3		1982	364	303	249	185	80	28	7	6	37	116	259	348	(8)
(9)		CDD10.0		1788	11	14	47	79	199	278	345	356	251	156	37	16	(9)
(10)		CDD18.3		320	0	0	0	1	21	56	94	103	37	8	0	0	(10)
(11)		CDH23.3		2802	0	0	3	24	214	507	827	883	308	36	0	0	(11)
(12)		CDH26.7		963	0	0	0	3	49	171	308	346	84	3	0	0	(12)
(13)	Precipitation	PrecAvg		923	100	86	76	72	77	56	47	54	74	88	94	99	(13)
(14)		PrecMax		1298	179	146	190	116	135	124	113	183	215	222	242	216	(14)
(15)		PrecMin		643	10	12	21	15	26	3	7	4	4	6	10	31	(15)
(16)		PrecSD		188.0	43.7	39.6	40.3	29.1	29.3	34.4	34.6	48.7	62.0	66.1	57.2	47.5	(16)
(17)	Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB		16.3	19.1	23.2	26.3	30.9	33.4	34.9	36.0	32.1	26.3	19.7	17.9	(17)
(18)			MCWB		12.4	13.0	14.6	16.4	19.4	21.4	21.2	22.6	20.7	18.4	15.2	13.5	(18)
(19)		2%	DB		14.6	16.2	20.6	23.1	27.9	30.8	32.3	33.0	29.0	24.1	17.4	15.0	(19)
(20)			MCWB		11.7	11.6	13.5	14.7	18.1	20.4	21.1	21.9	19.6	18.1	14.1	12.6	(20)
(21)		5%	DB		13.2	14.3	18.2	20.9	25.8	28.5	30.1	30.4	26.8	22.1	16.0	13.8	(21)
(22)			MCWB		11.0	10.7	12.2	14.0	17.3	19.5	20.5	20.9	18.8	17.1	13.5	11.9	(22)
(23)		10%	DB		12.1	12.9	16.1	18.2	23.4	26.2	27.9	28.1	24.7	20.2	14.9	12.8	(23)
(24)			MCWB		10.3	10.5	11.3	12.6	16.5	18.5	19.7	20.0	18.0	16.4	13.0	11.2	(24)
(25)	Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB		13.3	13.7	15.6	17.5	20.6	23.2	24.0	24.9	22.5	20.0	16.3	14.2	(25)
(26)			MCDB		14.9	16.4	21.4	24.2	28.2	30.9	31.0	32.0	28.9	23.4	18.5	15.8	(26)
(27)		2%	WB		12.4	12.6	14.1	15.9	19.1	21.6	22.4	23.1	21.1	18.7	14.9	13.2	(27)
(28)			MCDB		14.0	14.7	19.0	21.4	26.2	28.5	29.6	30.2	26.5	22.6	16.4	14.6	(28)
(29)		5%	WB		11.5	11.7	13.1	14.5	17.9	20.4	21.3	22.0	19.9	17.8	14.1	12.3	(29)
(30)			MCDB		13.0	13.7	16.9	19.2	23.9	26.5	27.6	28.2	24.5	21.1	15.6	13.6	(30)
(31)		10%	WB		10.6	10.8	12.1	13.3	16.9	19.3	20.4	20.9	18.8	16.9	13.2	11.3	(31)
(32)			MCDB		12.0	12.6	15.0	17.3	22.2	24.8	26.1	26.0	23.1	19.7	14.7	12.6	(32)
(33)	Mean Daily Temperature Range		MDBR		7.0	8.1	9.6	9.4	10.0	10.1	10.5	11.0	10.7	8.8	7.4	6.6	(33)
(34)		5% DB	MCDBR		7.8	10.3	13.3	13.7	14.1	14.2	14.5	14.9	14.1	10.9	8.5	6.9	(34)
(35)			MCWBR		5.3	6.3	7.1	6.7	6.3	5.8	5.6	5.7	6.0	5.8	5.6	4.9	(35)
(36)		5% WB	MCDBR		6.7	8.6	11.1	11.8	12.6	12.4	12.3	12.8	11.8	9.7	7.5	6.4	(36)
(37)			MCWBR		5.1	5.8	6.4	6.3	6.1	5.7	5.5	5.6	5.7	5.5	5.5	5.1	(37)
(38)	Clear Sky Solar Irradiance	taub			0.347	0.357	0.367	0.357	0.359	0.367	0.372	0.361	0.362	0.350	0.346	0.350	(38)
(39)		taud			2.569	2.502	2.436	2.415	2.382	2.333	2.360	2.455	2.490	2.557	2.574	2.576	(39)
(40)		Ebn,noon			772	827	866	905	909	900	891	889	861	825	764	729	(40)
(41)		Edh,noon			66	83	99	110	117	123	119	104	93	77	65	61	(41)

Nomenclature: See separate page