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LEIPZIG/SCHKEUDITZ, Germany

WMO#: **104690**

Lat: **51.42N** Long: **12.23E** Elev: **133** StdP: **99.74** Time Zone: **1.00 (EUW)** Period: **82-03** 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)	2	-13.3	-10.4	-15.2	1.0	-12.5	-12.7	1.3	-9.9	15.4	6.1	13.4	5.5	3.0	60	(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	10.2	29.8	19.2	27.7	18.5	25.9	17.7	20.2	27.1	19.3	25.7	18.5	24.3	4.0	240	(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)	17.8	13.0	22.7	17.0	12.3	21.8	16.2	11.7	21.1	58.6	27.0	55.4	25.8	52.6	24.4	943	(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)	12.5	10.8	9.4	23.5	-14.3	33.6	6.8	1.8	-19.2	34.9	-23.2	35.9	-27.0	37.0	-31.9	38.3	(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		9.4	0.5	0.1	4.6	8.2	13.2	16.2	18.6	18.6	14.7	10.2	4.7	2.1	(5)
(6)		Sd			5.63	5.48	4.10	3.72	3.55	3.47	3.23	3.26	2.96	3.69	3.92	4.09	(6)
(7)		HDD10.0		1288	295	279	170	78	12	0	0	0	1	42	163	247	(7)
(8)		HDD18.3		3393	553	512	424	305	162	83	37	38	114	252	409	504	(8)
(9)		CDD10.0		1056	0	1	4	23	111	186	268	266	143	49	3	1	(9)
(10)		CDD18.3		120	0	0	0	0	2	19	46	46	7	1	0	0	(10)
(11)		CDH23.3		1104	0	0	0	1	41	185	429	389	54	4	0	0	(11)
(12)		CDH26.7		288	0	0	0	0	1	44	123	114	6	1	0	0	(12)
(13)	Precipitation	PrecAvg		502	32	29	33	42	47	60	47	59	42	35	37	39	(13)
(14)		PrecMax		659	79	82	74	86	124	113	99	117	83	131	69	68	(14)
(15)		PrecMin		250	1	4	8	9	25	16	7	22	13	3	6	1	(15)
(16)		PrecSD		113.2	19.4	18.7	17.2	20.0	23.9	28.0	24.9	29.2	21.3	31.7	15.2	20.1	(16)
(17)	Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB		11.9	14.8	17.8	22.5	26.2	30.6	31.8	32.8	27.4	23.2	14.5	12.5	(17)
(18)			MCWB		9.1	10.7	11.1	13.5	17.0	19.3	20.3	20.7	18.0	16.1	10.8	9.5	(18)
(19)		2%	DB		9.6	11.4	14.3	19.4	24.5	27.8	29.9	29.7	25.0	19.8	12.9	11.2	(19)
(20)			MCWB		7.5	8.3	9.8	12.3	15.8	18.1	19.2	19.4	17.3	14.5	10.1	8.7	(20)
(21)		5%	DB		8.4	8.5	12.0	16.9	22.6	25.3	27.8	27.3	22.4	17.3	11.1	9.6	(21)
(22)			MCWB		6.5	6.3	8.4	11.2	15.0	17.3	18.7	18.5	16.2	13.5	9.0	7.7	(22)
(23)		10%	DB		7.0	6.5	10.2	14.7	20.5	23.1	25.7	25.3	20.2	15.6	10.0	7.9	(23)
(24)			MCWB		5.2	4.5	7.3	10.0	14.0	16.4	17.8	17.6	15.3	12.1	8.2	6.5	(24)
(25)	Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB		9.2	10.6	12.0	14.2	18.4	20.7	21.7	21.7	19.3	16.7	11.6	9.9	(25)
(26)			MCDB		11.1	14.2	16.0	20.9	24.3	26.9	30.3	30.9	25.4	22.1	13.6	11.8	(26)
(27)		2%	WB		7.8	8.5	10.2	12.8	16.7	19.2	20.4	20.1	18.0	15.1	10.4	8.9	(27)
(28)			MCDB		9.4	11.1	13.9	18.1	23.0	25.3	27.4	27.2	22.9	19.0	12.3	10.9	(28)
(29)		5%	WB		6.6	6.3	8.8	11.6	15.6	18.1	19.2	19.2	16.9	13.7	9.3	7.8	(29)
(30)			MCDB		8.1	8.3	11.3	16.1	21.3	23.9	25.8	25.7	21.1	16.8	11.1	9.5	(30)
(31)		10%	WB		5.3	4.6	7.6	10.2	14.4	17.0	18.3	18.3	15.8	12.5	8.2	6.5	(31)
(32)			MCDB		6.9	6.3	10.0	14.2	19.6	21.8	24.2	23.7	19.6	15.0	9.8	7.9	(32)
(33)	Mean Daily Temperature Range		MDBR		4.9	6.0	7.0	8.5	9.9	9.2	10.2	10.0	8.7	7.7	5.6	4.2	(33)
(34)		5% DB	MCDBR		5.5	7.9	10.1	12.5	13.5	13.3	14.1	13.8	12.5	10.3	6.8	5.3	(34)
(35)			MCWBR		4.5	5.8	6.5	7.0	7.1	5.9	6.2	6.2	6.3	6.1	5.1	4.4	(35)
(36)		5% WB	MCDBR		5.5	7.7	9.3	11.5	12.2	11.7	12.5	12.0	10.8	9.5	6.7	5.2	(36)
(37)			MCWBR		4.7	5.8	6.5	6.7	6.8	5.8	6.0	5.7	6.0	5.9	5.2	4.3	(37)
(38)	Clear Sky Solar Irradiance	taub			0.327	0.340	0.386	0.384	0.384	0.375	0.385	0.391	0.353	0.354	0.349	0.346	(38)
(39)		taud			2.448	2.398	2.257	2.243	2.230	2.260	2.272	2.275	2.420	2.429	2.423	2.451	(39)
(40)		Ebn,noon			688	781	800	851	868	878	862	835	833	753	647	600	(40)
(41)		Edh,noon			59	79	109	124	131	129	125	119	92	76	60	52	(41)

Nomenclature: See separate page