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NOUADHIBOU, Mauritania

WMO#: **614150**

Lat: **20.93N** Long: **17.03W** Elev: **3** StdP: **101.29** Time Zone: **0.00 (GRW)** 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	13.6	14.2	0.2	3.8	21.8	2.6	4.6	21.4	13.4	18.1	12.5	17.7	7.4	20	(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)	9	8.7	33.4	21.1	31.8	21.1	30.2	21.0	25.6	28.4	24.5	27.7	23.6	27.1	5.8	20	(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)	24.9	19.9	27.0	23.6	18.4	26.1	22.6	17.3	25.6	78.3	29.4	73.9	28.0	70.4	27.4	721	(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)	13.5	12.4	11.7	33.0	10.7	38.6	2.1	1.7	9.2	39.8	7.9	40.8	6.7	41.7	5.2	42.9	(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		22.6	19.9	20.6	21.4	21.0	21.7	23.3	23.5	24.6	26.0	24.7	23.2	21.0	(5)
(6)		Sd			1.87	2.03	2.56	1.94	1.95	1.91	1.71	1.83	2.18	2.31	2.15	1.90	(6)
(7)		HDD10.0		0	0	0	0	0	0	0	0	0	0	0	0	0	(7)
(8)		HDD18.3		12	6	2	1	1	0	0	0	0	0	0	0	2	(8)
(9)		CDD10.0		4594	306	296	354	330	364	399	419	453	481	457	395	341	(9)
(10)		CDD18.3		1564	53	64	97	81	106	149	161	195	231	199	145	85	(10)
(11)		CDH23.3		6739	168	244	431	214	314	507	541	943	1492	1021	613	251	(11)
(12)		CDH26.7		1784	23	55	149	53	77	116	97	214	461	327	174	39	(12)
(13)	Precipitation	PrecAvg		14	1	2	1	0	0	0	1	2	4	2	1	0	(13)
(14)		PrecMax		518	170	112	127	52	68	33	20	62	92	158	177	129	(14)
(15)		PrecMin		154	8	9	2	5	1	1	1	0	3	11	7	8	(15)
(16)		PrecSD		118.2	58.3	31.2	40.3	14.8	16.9	8.0	5.0	14.5	20.0	46.2	40.7	37.4	(16)
(17)	Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB		29.1	31.0	33.2	32.0	33.0	33.2	31.8	33.0	35.9	35.8	33.1	29.5	(17)
(18)			MCWB		15.4	16.8	17.4	18.7	19.2	20.8	22.8	24.3	22.7	21.5	18.8	17.8	(18)
(19)		2%	DB		26.8	28.2	30.8	27.9	28.7	29.6	29.0	30.8	32.8	32.8	30.8	27.8	(19)
(20)			MCWB		15.6	16.5	17.4	18.2	18.7	20.5	22.3	23.8	23.0	21.4	18.1	17.2	(20)
(21)		5%	DB		25.1	26.3	27.9	25.6	26.2	27.6	27.3	28.9	30.9	30.1	28.7	26.0	(21)
(22)			MCWB		15.4	16.2	17.4	18.1	18.6	20.4	22.0	23.5	23.3	21.2	18.4	17.0	(22)
(23)		10%	DB		23.7	24.4	25.2	24.0	24.8	26.0	26.1	27.4	29.2	28.0	26.8	24.5	(23)
(24)			MCWB		15.4	16.4	17.3	18.0	18.7	20.0	21.7	22.8	22.9	21.0	18.6	17.1	(24)
(25)	Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB		20.4	20.9	20.8	21.2	21.8	23.1	25.9	27.1	27.0	25.1	23.2	22.0	(25)
(26)			MCDB		23.1	24.1	26.2	25.4	26.5	26.9	27.3	29.0	29.3	28.4	25.9	24.2	(26)
(27)		2%	WB		19.1	19.7	19.9	20.1	20.6	22.0	23.9	25.3	25.8	23.4	21.8	20.8	(27)
(28)			MCDB		21.9	22.9	24.5	24.0	24.7	26.4	26.8	28.2	28.6	27.7	25.3	23.3	(28)
(29)		5%	WB		18.2	18.9	19.3	19.5	19.9	21.2	22.8	24.3	24.6	22.6	20.9	19.9	(29)
(30)			MCDB		21.3	22.2	23.5	23.2	24.1	25.4	25.8	27.2	28.2	27.2	24.2	22.8	(30)
(31)		10%	WB		17.4	18.2	18.6	18.8	19.3	20.7	22.0	23.4	23.7	22.0	20.2	19.1	(31)
(32)			MCDB		20.7	21.4	22.6	22.4	23.3	24.7	25.3	26.4	27.7	26.4	23.7	22.1	(32)
(33)	Mean Daily Temperature Range		MDBR		9.4	9.8	9.9	9.0	8.8	8.6	7.0	7.0	8.7	9.2	9.4	9.0	(33)
(34)		5% DB	MCDBR		11.1	12.2	13.2	11.2	10.8	10.4	9.0	9.3	10.7	11.6	11.4	10.5	(34)
(35)			MCWBR		5.3	5.2	4.8	4.1	3.9	3.5	3.7	4.0	4.1	4.2	4.3	4.6	(35)
(36)		5% WB	MCDBR		9.6	9.5	10.6	9.5	9.1	9.0	7.5	8.0	8.7	9.4	9.0	8.6	(36)
(37)			MCWBR		5.0	4.7	4.6	4.0	4.0	4.0	4.3	4.6	5.0	4.3	4.2	4.4	(37)
(38)	Clear Sky Solar Irradiance	taub			0.442	0.471	0.495	0.494	0.526	0.680	0.789	0.707	0.662	0.526	0.424	0.452	(38)
(39)		taud			2.256	2.118	2.008	1.969	1.883	1.576	1.430	1.597	1.707	2.020	2.357	2.250	(39)
(40)		Ebn,noon			824	821	818	822	788	670	601	654	675	760	837	798	(40)
(41)		Edh,noon			127	154	178	188	203	274	317	269	238	167	114	124	(41)

Nomenclature: See separate page