

MAPSTATIONSASHRAEPSYCHROMETRIC CALCULATORGOOGLE MAPS?SIIP

Latitude and longitude (xx.xx;yy.yy)

Psychrometric Calculator

Pressure, Pa

101325

Altitude, m

0

Tdb, °C

20

f, %

Twb, °C

Tdp, °C

A

N'DJAMENA INTL, CHAD

distance 513 km

B

N'GUIGMI, NIGER

distance 583 km

C

DIFFA, NIGER

distance 662 km

D

SARH, CHAD

distance 690 km

E

MAINE-SOROA, NIGER

distance 734 km

F

GOURE, NIGER

distance 734 km

Just right click on site on the map and get nearest weather stations!

2017 ASHRAE Handbook - Fundamentals (SI)

A

N'DJAMENA INTL, CHAD (WMO: 647000)

Lat:12.134N

Long:15.034E

Elev:295

StdP: 97.83

Time zone:1.00

Period:91-14

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%		MCWS	PCWD		
	99.6%	99%	DP	HR	MCDB	DP	HR	MCDB	WS	MCDB	WS	MCDB				
1	13.1	14.8	-11.1	1.5	28.6	-8.9	1.8	28.2	9.9	23.6	8.8	23.7	2.5	40		
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%		MCWS	PCWD	
		DB	MCWB	DB	MCWB	DB	MCWB	WB	MCDB	WB	MCDB	WB	MCDB			
4	14.7	43.0	21.9	42.1	21.8	41.1	21.6	28.3	34.4	27.6	33.7	27.0	33.3	3.9	80	
Extreme Annual Design Conditions																
Dehumidification DP/MCDB and HR									Enthalpy/MCDB						Extreme Max WB	
0.4%			1%			2%			0.4%		1%		2%			
DP	HR	MCDB	DP	HR	MCDB	DP	HR	MCDB	Enth	MCDB	Enth	MCDB	Enth	MCDB		
27.0	23.5	30.9	26.1	22.3	30.4	25.8	21.8	30.1	93.0	34.4	90.0	34.2	87.4	33.3	33.4	
Extreme Annual Design Conditions																
Extreme Annual WS			Extreme Annual Temperature						n-Year Return Period Values of Extreme Temperature							
			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	Min	Max
9.2	8.0	7.1	DB	10.0	44.2	2.0	0.9	8.6	44.9	7.4	45.5	6.2	46.0	4.7	46.7	
			WB	4.7	29.9	1.0	1.4	3.9	30.8	3.4	31.6	2.8	32.4	2.1	33.4	
Monthly Climatic Design Conditions																
Temperatures, Degree-Days and Degree-Hours		Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
		DBAvg	29.0	23.7	27.3	30.8	34.0	33.7	31.8	28.8	27.0	28.4	30.0	27.9	24.6	
		DBStd	3.80	2.99	3.12	2.31	1.75	2.06	2.02	2.00	1.54	1.69	1.43	1.99	2.43	
		HDD10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		HDD18.3	1	1	0	0	0	0	0	0	0	0	0	0	0	
		CDD10.0	6933	424	484	646	719	736	655	584	526	551	618	536	452	
		CDD18.3	3892	166	251	388	469	477	405	326	268	301	360	286	194	
		CDH23.3	52196	2065	3323	5806	7689	7573	5807	3712	2460	3223	4553	3664	2319	
		CDH26.7	31357	1096	2016	3816	5384	5163	3567	1790	904	1494	2628	2242	1257	
Wind	WSAvg	3.4	3.7	4.1	4.3	3.4	3.3	3.6	3.4	2.6	2.5	2.6	3.4	3.6		
Precipitation	PrecAvg	503	0	0	0	7	25	54	153	184	88	21	0	0		
	PrecMax	780	0	0	7	47	109	116	302	340	243	82	2	0		
	PrecMin	225	0	0	0	0	0	2	17	34	14	0	0	0		
	PrecStd	132	0	0	1	12	24	30	60	63	45	23	0	0		
Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB	39.0	41.8	43.0	44.2	44.0	41.8	38.8	34.8	37.9	39.8	39.8	38.1		
		MCWB	18.6	20.0	20.0	21.2	22.4	24.1	25.9	26.6	24.1	21.2	20.1	18.8		
	2%	DB	36.9	40.1	41.8	43.2	42.9	40.2	36.9	33.1	36.0	38.8	38.8	36.7		
		MCWB	17.5	19.3	19.9	21.5	23.0	24.5	25.5	26.2	25.2	20.9	19.5	17.9		
	5%	DB	34.9	38.6	40.8	42.2	41.9	39.1	35.2	32.1	34.7	37.8	37.8	35.0		
		MCWB	16.6	18.4	19.2	21.5	23.0	24.8	25.4	26.0	25.7	20.9	19.1	17.1		
	10%	DB	32.8	36.4	39.4	41.2	40.8	37.9	33.9	31.0	33.2	36.8	36.4	33.2		
		MCWB	15.7	17.3	18.5	21.4	23.1	24.9	25.4	25.7	25.9	21.8	18.4	16.3		
Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB	20.0	21.1	24.8	27.3	28.5	28.7	28.7	28.5	28.8	28.5	24.3	20.3		
		MCDB	36.3	39.4	37.2	38.0	38.2	37.3	34.4	32.4	33.3	33.9	33.4	35.9		
	2%	WB	18.6	20.2	21.7	26.3	27.3	27.7	27.8	27.4	27.8	27.1	22.5	19.0		
		MCDB	34.8	38.5	38.4	37.3	37.3	36.2	33.1	31.1	32.1	32.7	32.8	34.7		
	5%	WB	17.3	19.2	20.2	25.3	26.5	26.9	26.9	26.7	27.1	26.2	21.0	17.9		
		MCDB	32.8	36.9	38.5	36.6	36.3	35.1	32.1	30.4	31.5	31.4	34.2	33.0		
	10%	WB	16.2	17.9	19.2	24.2	25.7	26.2	26.1	26.0	26.3	25.4	19.5	17.0		
		MCDB	31.5	34.9	37.7	36.0	35.3	34.0	30.9	29.6	30.8	30.8	33.9	31.8		
Mean Daily Temperature Range	5% DB	MDBR	17.5	17.3	16.7	14.7	13.0	11.8	9.8	8.1	9.9	13.9	17.5	17.7		
		MCDBR	19.5	18.8	18.1	16.1	14.7	13.3	11.8	9.6	11.8	16.0	18.3	18.8		
		MCWBR	8.6	8.3	7.4	7.0	6.4	5.3	4.9	4.8	5.1	6.2	7.6	8.3		
	5% WB	MCD BR	19.1	18.3	16.9	13.2	12.7	12.1	10.4	8.8	10.3	12.2	17.2	18.4		
		MCWBR	9.0	8.6	7.8	6.7	6.4	6.1	5.7	5.3	5.1	6.2	7.6	8.3		
Clear Sky Solar Irradiance	taub		0.529	0.622	0.692	0.697	0.667	0.661	0.618	0.565	0.566	0.560	0.487	0.488		
	taud		1.821	1.621	1.505	1.543	1.630	1.688	1.814	1.948	1.925	1.888	1.952	1.918		
	Ebn,noon		772	718	681	674	682	677	710	760	763	759	805	798		
	Edn,noon		209	264	302	289	260	242	215	191	196	200	181	185		
All-Sky Solar Radiation	RadAvg		5.87	6.30	6.69	6.54	6.34	5.93	5.46	5.06	5.78	6.01	5.96	5.72		
	RadStd		0.16	0.16	0.23	0.24	0.29	0.24	0.28	0.23	0.18	0.20	0.12	0.10		

Contact