

2021 ASHRAE Handbook - Fundamentals (SI)																
CORDOBA, ARGENTINA (WMO: 873440)																
Lat:31.2967S			Long:64.2119W			Elev:474		StdP: 95.76		Time zone:-3.00 (W03)			Period:94-19		WBAN:99999	
Annual Heating, Humidification, and Ventilation Design Conditions																
Coldest Month	Heating DB		Humidification DP/MCDB and HR						Coldest month WS/MCDB				MCWS/PCWD to 99.6% DB		WSF	
			99.6%			99%			0.4%		1%					
	99.6%	99%	DP	HR	MCDB	DP	HR	MCDB	WS	MCDB	WS	MCDB	MCWS	PCWD		
7	-0.7	1.1	-10.6	1.6	11.1	-8.1	2.0	10.3	12.2	18.5	11.1	19.0	2.2	290	0.451	
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	
1	11.6	35.0	21.5	33.2	21.1	31.9	20.9	24.9	30.8	23.8	29.4	22.9	28.3	6.9	20	
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		
23.2	19.0	27.5	22.1	17.8	26.6	21.2	16.8	25.8	78.8	31.1	74.3	29.6	70.7	28.4	28.7	
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	
11.2	9.9	8.8	DB	-3.8	38.5	1.8	1.9	-5.1	39.9	-6.1	41.0	-7.1	42.1	-8.5	43.5	
			WB	-5.0	26.8	1.8	1.0	-6.2	27.5	-7.3	28.1	-8.3	28.7	-9.6	29.4	
Monthly Climatic Design Conditions																
			Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Temperatures, Degree-Days and Degree-Hours	DBAvg	17.7	23.6	22.2	20.7	17.9	14.5	11.6	11.0	13.1	15.5	18.5	21.0	23.1		
	DBStd	5.63	2.76	2.95	3.13	3.76	3.78	3.44	3.99	4.43	4.23	3.81	3.48	3.04		
	HDD10.0	86	0	0	0	1	6	22	35	17	5	0	0	0		
	HDD18.3	973	1	4	13	53	131	204	231	172	103	44	14	3		
	CDD10.0	2894	421	343	333	237	144	69	66	114	171	263	330	405		
	CDD18.3	741	163	113	87	39	11	1	3	11	19	49	94	149		
	CDH23.3	7284	1541	948	719	338	98	24	45	188	299	574	1005	1506		
	CDH26.7	2846	648	354	234	97	18	3	11	71	106	223	420	660		
Wind		WSAvg	3.7	3.6	3.3	3.4	3.3	3.2	3.2	3.4	4.0	4.3	4.2	4.3	3.9	
Precipitation	PrecAvg	810	122	123	116	57	23	9	10	9	35	73	107	139		
	PrecMax	1317	237	417	295	200	133	51	124	51	153	236	281	355		
	PrecMin	485	45	20	3	3	0	0	0	0	0	6	34	22		
	PrecStd	174	50	71	75	47	26	12	19	13	39	46	47	64		
Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB	36.3	34.8	33.8	32.2	29.0	26.2	28.1	32.8	34.5	35.5	36.3	36.9		
		MCWB	22.1	22.8	22.8	20.9	18.9	16.5	16.9	17.8	18.9	19.8	20.5	22.5		
	2%	DB	34.0	32.4	31.1	29.2	26.1	23.1	23.9	28.2	29.6	31.9	33.2	34.4		
		MCWB	22.4	23.0	21.8	19.6	18.1	14.5	13.9	16.0	16.7	19.0	19.8	21.6		
	5%	DB	32.1	30.8	29.2	27.1	23.7	20.8	21.1	24.8	26.9	29.0	31.1	32.2		
		MCWB	21.9	22.6	21.0	18.8	16.5	13.2	12.8	14.6	15.7	17.7	19.2	20.7		
	10%	DB	30.2	28.9	27.5	25.0	21.2	18.7	18.6	21.9	24.1	26.2	29.0	30.2		
		MCWB	21.4	21.8	20.3	17.7	15.2	12.3	11.4	13.0	14.2	16.5	18.4	20.4		
Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB	25.9	26.3	25.4	23.4	21.1	19.0	18.0	19.7	20.4	22.9	23.6	25.2		
		MCDB	32.3	30.9	31.0	28.2	25.7	23.6	25.3	28.7	29.5	29.7	31.2	32.6		
	2%	WB	24.5	24.8	23.7	21.7	19.3	16.6	16.0	17.5	18.6	20.7	22.1	23.7		
		MCDB	30.1	29.8	28.5	26.0	23.3	20.5	21.1	25.4	26.0	28.9	28.8	30.3		
	5%	WB	23.4	23.6	22.3	20.3	18.0	14.9	14.4	15.6	17.1	19.4	20.9	22.7		
		MCDB	29.2	28.3	26.8	24.2	21.9	18.4	18.7	22.3	24.2	26.0	27.9	29.0		
	10%	WB	22.5	22.5	21.2	19.2	16.7	13.5	12.8	13.7	15.5	18.0	19.7	21.6		
		MCDB	28.0	27.0	25.4	23.4	20.1	17.0	17.0	20.0	22.0	24.0	26.4	27.7		

Mean Daily Temperature Range		MDBR	11.6	10.7	11.0	11.2	11.1	12.8	13.1	14.2	13.8	12.8	12.8	12.3
	5% DB	MCDBR	14.6	13.7	13.7	14.7	14.5	16.6	17.2	18.6	18.1	17.1	16.4	15.4
		MCWBR	6.1	6.4	6.4	6.8	7.4	9.3	9.4	9.1	8.4	7.6	6.8	6.2
	5% WB	MCDBR	12.0	11.6	11.4	11.3	11.5	12.7	14.1	16.3	15.1	14.3	13.6	12.6
		MCWBR	6.4	6.5	6.4	5.9	6.3	8.0	8.3	8.9	8.4	7.6	6.8	6.2
Clear Sky Solar Irradiance	taub		0.390	0.373	0.366	0.352	0.332	0.317	0.321	0.358	0.415	0.396	0.381	0.388
	taud		2.386	2.446	2.464	2.469	2.472	2.505	2.458	2.341	2.173	2.294	2.370	2.380
	Ebn at noon		950	947	919	878	846	837	849	856	854	913	952	955
	Edn at noon		128	117	108	97	86	78	86	108	142	135	130	130
All-Sky Solar Radiation	RadAvg		6.99	6.00	5.11	3.85	2.99	2.80	3.10	4.09	5.17	6.00	6.89	7.09
	RadStd		0.48	0.47	0.45	0.47	0.30	0.30	0.22	0.30	0.43	0.48	0.44	0.45
Historical Trends														
	DBAvg	Heating		Cooling			Degree-Days							
		99% DB	99% DP	1% DB	1% WB	1% DP	HDD10.0	HDD18.3	CDD10.0	CDD18.3				
Station Only	N/A	-0.67	-1.39	+0.67	N/A	N/A	N/A	N/A	N/A	N/A				
Regional (0 neighbors)	N/A	-0.67	-1.39	+0.67	N/A	N/A	N/A	N/A	N/A	N/A				

CDDn	Cooling degree-days base n°C, °C-day	Lat	Latitude, °	Period	Years used to calculate the design conditions
CDHn	Cooling degree-hours base n°C, °C-hour	Long	Longitude, °	Sd	Standard deviation of daily average temperature, °C
DB	Dry bulb temperature, °C	MCDB	Mean coincident dry bulb temperature, °C	StdP	Standard pressure at station elevation, kPa
DP	Dew point temperature, °C	MCDBR	Mean coincident dry bulb temp. range, °C	taub	Clear sky optical depth for beam irradiance
Ebn,noon	Clear sky beam normal and diffuse horizontal irradiances at solar noon, W/m2	MCDP	Mean coincident dew point temperature, °C	taud	Clear sky optical depth for diffuse irradiance
Edh,noon		MCWB	Mean coincident wet bulb temperature, °C	Tavg	Average temperature, °C
Elev	Elevation, m	MCWBR	Mean coincident wet bulb temp. range, °C	Time Zone	Hours ahead or behind UTC
Enth	Enthalpy, kJ/kg	MCWS	Mean coincident wind speed, m/s	WB	Wet bulb temperature, °C
HDDn	Heating degree-days base n°C, °C-day	MDBR	Mean dry bulb temp. range, °C	Hours 8/4 & 12.8/20.6	Number of hours between 8 a.m. and 4 p.m with DB between 12.8 and 20.6 °C
PCWD	Prevailing coincident wind direction, °,0 = North, 90 = East	WS	Wind speed, m/s	HR	Humidity ratio, g of moisture per kg of dry air