

2021 ASHRAE Handbook - Fundamentals (SI)						JUJUY, ARGENTINA (WMO: 870460)												
Lat:24.3839S			Long:65.0956W			Elev:905		StdP: 90.92			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	1.9	3.7	-5.0	2.8	9.0	-3.1	3.2	9.9	9.5	18.5	8.3	16.0	2.5	320	0.356			
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			
12	11.5	35.4	20.8	34.0	20.7	32.5	20.7	24.0	30.5	23.3	29.5	22.7	28.6	4.4	50			
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				
22.2	18.9	26.6	21.7	18.3	26.1	21.1	17.6	25.3	77.5	30.5	74.7	29.3	72.3	28.7	30.9			
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		
9.1	7.6	6.2	DB	-1.2	39.1	2.1	1.3	-2.7	40.1	-4.0	40.8	-5.1	41.5	-6.6	42.5			
			WB	-2.2	25.7	1.8	1.3	-3.5	26.7	-4.6	27.4	-5.6	28.2	-6.9	29.1			
Monthly Climatic Design Conditions																		
			Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Temperatures, Degree-Days and Degree-Hours	DBAvg	19.6	24.4	23.4	21.8	19.1	15.9	13.5	13.2	15.9	18.7	22.0	23.3	24.2				
	DBStd	5.29	2.43	2.57	2.59	3.30	3.49	3.47	3.99	4.51	4.58	3.82	3.37	2.87				
	HDD10.0	30	0	0	0	0	2	8	14	4	1	0	0	0				
	HDD18.3	609	1	1	4	30	92	147	164	104	51	11	3	1				
	CDD10.0	3532	445	374	367	273	183	115	114	187	262	372	398	442				
	CDD18.3	1068	187	142	113	53	16	3	6	28	61	124	151	184				
	CDH23.3	9484	1552	1016	651	296	103	53	105	409	762	1321	1522	1696				
	CDH26.7	3792	633	359	178	62	14	10	24	153	322	597	692	749				
Wind		WSAvg	2.5	2.5	2.3	2.1	2.0	2.0	2.1	2.5	3.0	3.2	3.1	3.0	2.7			
Precipitation	PrecAvg	787	163	164	143	45	16	5	4	5	8	29	62	144				
	PrecMax	1019	286	252	328	104	59	15	13	18	37	124	119	232				
	PrecMin	560	38	46	52	4	2	0	0	1	2	2	14	62				
	PrecStd	115	63	52	55	24	14	4	3	4	8	27	27	52				
Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB	35.2	34.1	32.2	30.2	28.4	27.9	29.7	33.2	35.9	37.5	37.5	36.8				
		MCWB	22.3	22.6	22.9	21.7	20.1	16.5	16.8	18.0	18.8	20.0	20.9	21.9				
	2%	DB	33.3	32.1	30.1	28.3	26.0	24.8	26.1	30.8	33.0	34.9	34.7	34.4				
		MCWB	22.2	22.6	22.4	20.9	19.0	17.1	16.3	17.5	18.3	20.0	20.7	21.6				
	5%	DB	32.0	30.6	28.8	26.8	24.1	22.2	23.8	28.0	30.7	32.3	32.7	32.8				
		MCWB	21.9	22.4	22.0	20.6	17.8	15.8	15.5	16.8	17.7	19.5	20.0	21.2				
	10%	DB	30.2	29.0	27.0	24.9	22.0	20.1	21.1	25.1	28.0	30.0	30.8	30.9				
		MCWB	21.8	21.9	21.2	19.8	17.0	14.3	13.8	15.3	16.4	18.6	19.4	21.2				
Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB	24.8	24.8	24.2	23.3	21.5	18.9	18.9	20.0	21.0	22.4	23.6	24.2				
		MCDB	31.3	30.9	29.6	28.2	26.4	24.8	26.6	30.1	32.0	32.2	32.6	31.7				
	2%	WB	23.7	23.8	23.3	22.3	19.9	17.6	17.2	18.3	19.5	21.3	22.2	23.3				
		MCDB	30.2	29.6	28.5	26.5	24.5	23.1	24.4	28.4	29.9	30.9	30.3	30.5				
	5%	WB	23.1	23.1	22.5	21.4	18.6	16.4	15.8	17.0	18.4	20.4	21.4	22.6				
		MCDB	29.2	28.5	27.2	25.1	22.6	21.2	22.5	27.0	28.3	29.5	29.3	29.5				
	10%	WB	22.4	22.4	21.7	20.4	17.5	15.2	14.4	15.7	17.1	19.5	20.6	21.9				
		MCDB	28.2	27.4	25.7	23.8	21.3	19.2	20.0	24.3	26.3	27.9	28.1	28.6				

Mean Daily Temperature Range		MDBR	10.8	9.9	9.0	9.2	9.6	11.5	13.1	14.1	14.1	12.7	12.2	11.5
	5% DB	MCDBR	13.6	12.6	11.8	12.0	12.9	15.3	17.1	18.7	17.9	17.0	15.6	14.9
		MCWBR	4.8	4.9	5.3	5.8	6.9	8.6	9.2	9.0	7.5	6.5	5.4	5.0
	5% WB	MCDBR	11.5	11.1	10.2	10.1	11.4	13.5	15.4	17.2	15.8	14.4	13.4	12.4
		MCWBR	4.8	4.8	4.9	5.3	6.5	8.0	8.6	8.7	7.5	6.5	5.4	5.0
Clear Sky Solar Irradiance	taub		0.437	0.423	0.421	0.390	0.326	0.302	0.307	0.359	0.424	0.475	0.423	0.431
	taud		2.291	2.337	2.333	2.377	2.497	2.546	2.503	2.333	2.157	2.069	2.267	2.293
	Ebn at noon		910	908	881	864	887	893	899	881	863	851	916	917
	Edn at noon		142	133	128	112	91	82	89	115	149	172	145	142
All-Sky Solar Radiation	RadAvg		6.21	5.76	5.06	4.42	3.80	3.64	4.07	4.96	5.81	6.18	6.59	6.32
	RadStd		0.46	0.41	0.33	0.29	0.28	0.22	0.19	0.29	0.34	0.37	0.47	0.41
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	N/A	N/A	N/A	N/A	N/A	-14	N/A	N/A	N/A			
Regional (0 neighbors)		N/A	N/A	N/A	N/A	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	