

2021 ASHRAE Handbook - Fundamentals (SI)																
RECONQUISTA, ARGENTINA (WMO: 872700)																
Lat: 29.205S		Long: 59.6933W		Elev: 53		StdP: 100.69			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	2.9	4.6	-2.2	3.2	9.9	-0.5	3.6	9.4	11.7	17.5	10.0	16.3	1.5	230	0.394	
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	10.1	36.2	24.9	34.8	24.5	33.4	24.0	27.0	32.9	26.3	31.8	25.7	30.7	5.2	0	
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		
25.5	20.9	30.3	24.9	20.0	29.5	24.2	19.2	28.8	85.8	32.9	82.6	32.0	79.5	30.8	30.8	
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
10.4	9.1	8.2	DB	-0.2	39.0	1.8	1.1	-1.5	39.7	-2.5	40.4	-3.5	41.0	-4.8	41.8	
			WB	-0.9	28.4	1.8	0.9	-2.2	29.1	-3.3	29.6	-4.3	30.2	-5.6	30.8	
Monthly Climatic Design Conditions																
			Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Temperatures, Degree-Days and Degree-Hours	DBAvg	20.6	26.7	25.6	23.8	20.6	17.3	15.1	14.3	16.2	18.2	20.9	23.0	25.3		
	DBStd	5.68	2.68	2.96	3.15	3.79	3.93	4.52	4.99	5.24	4.64	3.66	3.08	3.01		
	HDD10.0	24	0	0	0	0	1	6	12	5	1	0	0	0		
	HDD18.3	538	0	0	2	19	69	119	147	107	56	15	3	1		
	CDD10.0	3877	516	438	428	319	226	158	147	198	247	338	389	473		
	CDD18.3	1349	258	205	171	88	36	22	23	42	52	95	142	216		
	CDH23.3	12485	2838	2002	1436	589	163	89	134	376	511	803	1313	2230		
	CDH26.7	5114	1329	851	542	178	29	13	28	139	206	289	511	1000		
Wind		WSAvg	3.5	3.2	3.2	3.1	3.0	3.0	3.1	3.5	4.0	4.3	4.3	3.9	3.5	
Precipitation	PrecAvg	1225	146	152	162	145	75	43	34	36	57	123	140	144		
	PrecMax	1934	392	365	429	483	294	204	129	329	164	353	428	447		
	PrecMin	593	16	17	8	26	4	0	0	0	2	13	24	16		
	PrecStd	288	92	93	86	115	60	49	28	46	36	81	77	95		
Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB	38.0	37.2	35.8	33.0	29.5	28.4	29.4	33.2	36.6	35.7	35.6	37.5		
		MCWB	25.0	25.8	25.3	24.8	23.0	21.9	20.6	21.9	22.8	24.3	24.1	25.2		
	2%	DB	35.9	34.9	33.4	30.9	27.1	25.9	27.1	30.5	31.9	31.9	33.2	35.2		
		MCWB	25.1	25.0	24.5	23.8	21.6	21.0	19.9	21.0	21.6	22.6	22.6	24.7		
	5%	DB	34.3	33.1	31.5	28.8	25.0	23.7	24.3	27.7	28.8	29.9	31.5	33.6		
		MCWB	24.6	24.5	23.8	22.4	20.7	20.3	19.1	19.8	19.8	22.1	21.8	24.0		
	10%	DB	32.6	31.4	29.7	26.9	23.3	21.7	21.8	24.7	26.0	27.7	29.8	31.8		
		MCWB	24.0	24.1	23.1	21.8	20.0	18.9	17.7	18.6	18.6	20.6	21.2	23.5		
Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB	27.9	27.7	26.8	26.0	24.2	23.1	22.1	23.3	24.5	26.0	26.1	27.7		
		MCDB	33.9	33.4	32.7	30.7	28.1	26.9	26.9	31.0	32.4	31.8	32.9	34.1		
	2%	WB	26.8	26.9	25.9	24.9	22.8	21.7	20.7	21.7	22.6	24.5	24.5	26.7		
		MCDB	32.5	32.2	31.2	29.3	25.5	24.5	25.3	28.7	29.4	30.5	30.2	32.6		
	5%	WB	26.1	26.0	25.1	23.8	21.6	20.5	19.5	20.4	21.2	23.1	23.5	25.7		
		MCDB	31.3	30.8	29.8	27.4	24.1	23.3	23.7	26.4	26.9	27.9	28.6	30.9		
	10%	WB	25.3	25.2	24.1	22.7	20.4	19.2	18.3	19.0	19.8	21.8	22.6	24.7		
		MCDB	30.3	29.4	28.1	25.5	22.8	21.6	21.5	24.4	24.5	26.2	27.2	29.6		

Mean Daily Temperature Range		MDBR	10.1	9.4	9.3	8.8	8.3	8.5	9.8	11.2	11.1	10.2	10.8	10.3
	5% DB	MCDBR	12.2	11.6	11.6	11.0	9.9	9.4	11.8	14.0	14.9	13.4	13.4	13.0
		MCWBR	4.0	4.1	4.5	5.0	5.1	5.0	5.8	6.3	6.3	5.9	5.1	4.8
	5% WB	MCDBR	10.0	9.4	9.8	9.2	8.0	8.5	10.4	12.8	12.5	11.1	10.5	10.4
		MCWBR	4.2	4.2	4.7	4.7	4.7	4.9	5.7	6.2	6.3	5.9	5.1	4.8
Clear Sky Solar Irradiance	taub		0.402	0.397	0.387	0.388	0.367	0.379	0.376	0.459	0.524	0.455	0.401	0.400
	taud		2.405	2.427	2.437	2.412	2.434	2.385	2.364	2.079	1.912	2.187	2.357	2.391
	Ebn at noon		941	927	903	849	819	778	798	761	760	862	935	944
	Edn at noon		126	120	112	105	92	92	98	143	187	151	132	129
All-Sky Solar Radiation	RadAvg		6.88	6.19	5.32	4.01	3.06	2.61	3.06	3.87	4.75	5.61	6.74	6.93
	RadStd		0.57	0.46	0.36	0.49	0.35	0.24	0.28	0.33	0.51	0.57	0.53	0.47
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	+0.47	+0.43	N/A	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