

Phytosociological Research Center

www.globalbioclimatics.org

Worldwide Bioclimatic Classification System

S.Rivas-Martinez(+) & S.Rivas-Saenz

(Adapted to Synoptical Table 14/02/2020)

PORTO DE MOZ (BRAZIL)

Altitude: 145 m.

Latitude: 1°44'S Longitude: 52°14'W

Temperature observation period.: 1966-1990 (25)

Rainfall observation period....: 1966-1990 (25)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	25.80	31.00	22.20	35.20	16.50	230.0	126.29
Feb.	23.50	30.60	22.10	34.90	17.00	268.0	81.41
Mar.	25.90	30.80	22.30	34.50	16.00	350.0	128.07
Apr.	26.10	31.20	22.40	34.70	14.50	367.0	127.88
May.	26.10	30.90	22.50	34.40	17.50	335.0	130.42
Jun.	26.00	32.10	22.40	34.50	19.20	247.0	124.87
Jul.	26.20	32.80	22.00	34.20	17.50	177.0	133.52
Aug.	26.70	33.40	22.30	35.10	18.50	88.0	142.59
Sep.	27.00	33.00	22.50	35.50	18.00	78.0	140.90
Oct.	27.30	32.20	22.70	35.90	17.80	53.0	147.58
Nov.	27.10	32.00	22.70	37.40	16.50	80.0	143.11
Dec.	26.70	31.00	22.70	36.20	17.50	109.0	143.96
Year	26.20	31.75	22.40	35.21	17.21	2382	1570.6

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	789
Compensated thermicity index.....(Itc):	789
Simple continentality index.....(Ic):	3.8
Diurnality index.....(Id):	11.1
Annual ombrothermic index.....(Io):	7.58
Monthly dry ombrothermic index.....(Iod1):	1.94
Bimonthly dry ombrothermic index.....(Iod2):	2.41
Threemonthly dry ombrothermic index.....(Iod3):	2.59
Fourmonthly dry ombrothermic index.....(Iod4):	2.77
Annual ombro-evaporation index.....(Ioe):	1.52
Annual positive temperature.....(Tp):	3144
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	814
Positive precipitation.....(Pp):	2382

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	8	3	1	0	0

Latitudinal Belt...: Equatorial

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

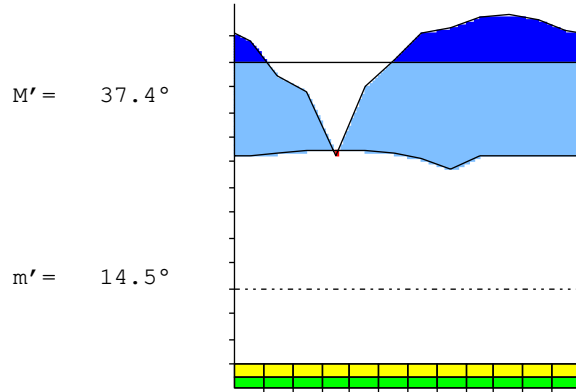
Bioclimate(Variant): TROPICAL PLUVISEASONAL (PLUVISEROTIN,MESOPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW HUMID

PORTO DE MOZ (BRAZIL)

145 m

P= 2382 1° 44'S 52° 14'W 25/25 y.
 T= 26.2 ° Ic= 3.8 Tp= 3144 Tn= 0
 m= 22.1 ° M= 30.6 ° Itc= 789 Io= 7.6



TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 UPPER INFRATROPICAL LOW HUMID

WATER INDEX CARD PORTO DE MOZ (BRAZIL)
 Altitude: 145 m. Latitude: 1° 44'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	26.2	134	177	0	100	134	0	43	103	0.3
Aug.	26.7	143	88	-55	45	143	0	0	51	-0.3
Sep.	27.0	141	78	-45	0	123	17	0	26	-0.4
Oct.	27.3	148	53	0	0	53	95	0	13	-0.6
Nov.	27.1	143	80	0	0	80	63	0	6	-0.4
Dec.	26.7	144	109	0	0	109	35	0	3	-0.2
Jan.	25.8	126	230	100	100	126	0	4	3	0.8
Feb.	23.5	81	268	0	100	81	0	187	95	2.2
Mar.	25.9	128	350	0	100	128	0	222	158	1.7
Apr.	26.1	128	367	0	100	128	0	239	199	1.8
May.	26.1	130	335	0	100	130	0	205	202	1.5
Jun.	26.0	125	247	0	100	125	0	122	162	0.9
Year	26.2	1571	2382	*	*	1360	210	1022	1022	*

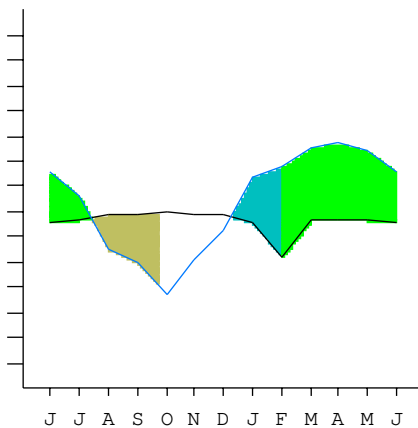
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

PORTO DE MOZ (BRAZIL)

1°44'S 52°14'W 145 m 25/25 y.

T= 26.2 Ic= 3.8 TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 m= 22.1 Tp= 3144 UPPER INFRATROPICAL
 M= 30.6 Tn= 0 LOW HUMID
 M' = 37.4 Itc= 789
 m' = 14.5 Io= 7.6
 P= 2382 mm ————
 PE= 1571 mm ————

Imbibing	8 Dec.
Saturation	29 Jan.
Reserve Use	14 Jul.
Deficit	22 Sep.



PORTO DE MOZ (BRAZIL)

Latitude: 1°44'S Longitude: 52°14'W Altitude: 145 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A1b]
+ Type: A. Hyperoceanic
+ Subtype: 1. Ultrahyperoceanic
+ Variant: b. Low
Thermic types [A1.A1]
+ Latitudinal zone: A. Warm
+ Latitudinal belt: 1. Equatorial
+ Thermic type: A. Warm
+ Thermic subtype: 1. Torrid
Bioclimatic types [A4e.1a.7b]
+ Macrobioclimate: A. TROPICAL
+ Bioclimate: 4. PLUVISEASONAL
+ Bioclimatic variant .: PLUVISEROTIN, MESOPHYTIC
+ Thermic type.....: 1. INFRATROPICAL
+ Thermic subtype.....: a. UPPER
+ Ombrothermic type ...: 7. HUMID
+ Ombrothermic subtype : b. LOW
Bioclimatic ClassificationTrps(Pse).Itr.Hum.Uho

PORTO DE MOZ (BRAZIL)

Latitude: 1°44'S Longitude: 52°14'W Altitude: 145 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 585
Coldest semester of the year.....(Psw): 1797
Warmest four months period of the year.....(Pcm1): 299
Following warmest four months period.....(Pcm2): 957
Positive precipitation dryest 3 months.....(Ppd): 211
Positive precipitation dryest 2 months.....(Ppd2): 131
Positive precipitation dryest 1 month.....(Ppd1): 53
Positive precipitation warmest 3 months.....(Pps): 211
Positive precipitation warmest 2 months.....(Pps2): 133
Positive precipitation warmest 1 month.....(Pps1): 53
Positive precipitation coldest 3 months.....(Ppw): 848
Positive precipitation coldest 2 months.....(Ppw2): 498
Positive precipitation coldest 1 month.....(Ppw1): 268

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	512	211	607	1052

Tropical rainfall rhythms: 2 > 1 > 3 > 4

PORTO DE MOZ (BRAZIL)

Latitude: 1°44'S Longitude: 52°14'W Altitude: 145 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.3
Average coldest month [T].....(Tmin): 23.5
Maximum temp. warmest month [M].....(Tmmax): 33.4
Minimum temp. coldest month [m].....(Tmmin): 22.0
Absolute Max.temp. warmest month [M'].....(Tamax): 37.4
Absolute Min.temp. coldest month [m'].....(Tamin): 14.5
First warmest contrasted month [M].....(Tcmax): 33.4 (8)
First coldest contrasted month [m].....(Tcmin): 22.3 (8)
Dry station temperature.....(Td): 814
Positive temperature dryest 3 months.....(Tpd): 814
Positive temperature dryest 2 months.....(Tpd2): 543
Positive temperature dryest 1 month.....(Tpd1): 273
Positive temperature warmest 3 months.....(Tps): 814
Positive temperature warmest 2 months.....(Tps2): 544
Positive temperature warmest 1 month.....(Tps1): 273
Positive temperature coldest 3 months.....(Tpw): 752
Positive temperature coldest 2 months.....(Tpw2): 493
Positive temperature coldest 1 month.....(Tpw1): 235

PORTO DE MOZ (BRAZIL)

Latitude: 1°44'S Longitude: 52°14'W Altitude: 145 m

SEASONAL PARAMETERS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Warmest semester...(Sms)							o	o	o	o	o	o
Dryest semester....(Smd)							o	o	o	o	o	o
Warmest 4 months...(Cm1)								o	o	o	o	
Dryest 4 months....(Cmd)								o	o	o	o	
Vegetation Activity(Pav)	o	o	o	o	o	o	o	o	o	o	o	o
Ultragelid...[M'<=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid.....[m <=0] (Pf)												
Pregelid.....[m'<=0] (Pf)												
Agelid.....[m'> 0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

PORTO DE MOZ (BRAZIL)

Latitude: 1°44'S Longitude: 52°14'W Altitude: 145 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.66
 Mediterranean index of January.....(Im1): No
 Mediterranean index of January & February.....(Im2): No
 Mediterranean index of December to February...(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	1090	2300	2680	3500	3670	3350	2470	1770	880	780	530	800
Tp	267	258	235	259	261	261	260	262	267	270	273	271
Io (Iom)	4.08	8.91	11.4	13.5	14.1	12.8	9.50	6.76	3.30	2.89	1.94	2.95
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	6070 / 760			10520 / 781			5120 / 789			2110 / 814		
Io (Iot)	7.987			13.47			6.489			2.592		
Semesters	December-May						June-November					
Pp(x10)/Tp	16590 / 1541						7230 / 1603					
Io (Iosm)	10.77						4.510					

PORTO DE MOZ (BRAZIL)

Latitude: 1°44'S Longitude: 52°14'W Altitude: 145 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 23820/3144=7.58 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1090	2300	2680	3500	3670	3350	2470	1770	880	780	530	800
Tp [T*10]	267	258	235	259	261	261	260	262	267	270	273	271
Iom [Pp/Tp]	408	891	\$\$\$	\$\$\$	\$\$\$	\$\$\$	950	676	330	289	194	295
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	6	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	6070 / 760			10520 / 781			5120 / 789			2110 / 814		
Iot [Pp/Tp]	799			1347			649			259		
Avs E[Avm<200]	***			***			***			***		
Weak upper semiarid [1]												

PORTO DE MOZ (BRAZIL)

Latitude: 1°44'S Longitude: 52°14'W Altitude: 145 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 3.80
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 193.17
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 17.77
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 2.41
 + Hypercontinental (2.3<CI<5)
 Rainfall Index of Lang (1925) [R=P/T]: 90.92
 + Temperate warm (100>R>60)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 65.80
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 377.16
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 1.10
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 1.52
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 56.54
 + Very low (K<60)

PORTO DE MOZ (BRAZIL)

Latitude: 1°44'S Longitude: 52°14'W Altitude: 145 m

BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 3. Termoxeroteric (Mediterranean warm)
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.91	1.14	1.45	1.53	1.38	0.98	0.68	0.31	0.27	0.17	0.27	0.39
T-E ratio	11.61	10.57	11.65	11.75	11.75	11.70	11.79	12.02	12.15	12.28	12.20	12.02
Precipitation-effectiveness: 94.92						Temperature-efficiency: 141.48						
Moisture Index [MI=100*(P-PE)/PE]: 51.66 + B2.Humid medium-humid (40<MI<60)												
Index of dryness [DI=100*d/PE]: 13.38 + No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]: 65.04 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 1570.58 + Megathermic (PE>1440)												

