

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

VALLANCA (ESP VALENCIA)

Altitude: 970 m.

Latitude: 40°4'N Longitude: 1°20'W

Temperature observation period.: 1954-1967 (14)

Rainfall observation period....: 1954-1967 (14)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	5.10	11.30	-1.00	18.10	-7.70	28.0	11.40
Feb.	5.90	12.30	-0.60	19.60	-6.60	49.0	13.80
Mar.	9.00	15.90	2.00	23.60	-3.70	35.0	30.86
Apr.	10.70	17.30	4.10	24.60	-1.10	35.0	42.33
May.	15.00	22.40	7.50	29.80	2.90	49.0	75.74
Jun.	18.30	26.00	10.70	33.20	5.50	52.0	100.76
Jul.	22.90	31.50	14.20	36.70	9.20	25.0	139.95
Aug.	23.10	31.80	14.40	36.60	9.80	44.0	131.62
Sep.	20.20	28.50	11.90	35.00	7.30	50.0	96.21
Oct.	14.70	21.80	7.60	29.20	1.60	54.0	57.01
Nov.	8.60	14.90	2.40	22.20	-3.60	50.0	23.34
Dec.	5.80	11.90	-0.40	19.00	-6.70	45.0	13.15
Year	13.28	20.47	6.07	27.30	0.57	516	736.16

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	236
Compensated thermicity index.....(Itc):	236
Simple continentality index.....(Ic):	18.0
Diurnality index.....(Id):	17.4
Annual ombrothermic index.....(Io):	3.24
Monthly estival ombrothermic index.....(Ios1):	1.09
Bimonthly estival ombrothermic index.....(Ios2):	1.50
Threemonthly estival ombrothermic index.....(Ios3):	1.88
Fourmonthly estival ombrothermic index.....(Ios4):	2.14
Annual ombro-evaporation index.....(Ioe):	0.70
Annual positive temperature.....(Tp):	1593
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	643
Positive precipitation.....(Pp):	516

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	4	6	2	0	0

Latitudinal Belt....: Low Eutemperate

Continentality.....: Oceanic - Low Semicontinental

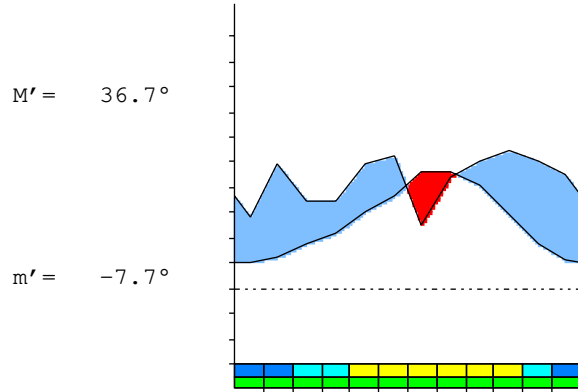
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt....: UPPER MESOMEDITERRANEAN UPPER DRY

VALLANCA (ESP VALENCIA)

970 m

P= 516 40° 4'N 1° 20'W 14/14 y.
 T= 13.3 ° Ic= 18.0 Tp= 1593 Tn= 0
 m= -1.0 ° M= 11.3 ° Itc= 236 Io= 3.2



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 UPPER MESOMEDITERRANEAN UPPER DRY

WATER INDEX CARD

VALLANCA (ESP VALENCIA)

Altitude: 970 m.

Latitude: 40° 4'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	5.1	11	28	17	75	11	0	0	0	1.4
Feb.	5.9	14	49	25	100	14	0	10	5	2.5
Mar.	9.0	31	35	0	100	31	0	4	5	0.1
Apr.	10.7	42	35	-7	93	42	0	0	2	-0.1
May.	15.0	76	49	-27	66	76	0	0	1	-0.3
Jun.	18.3	101	52	-49	17	101	0	0	1	-0.4
Jul.	22.9	140	25	-17	0	42	98	0	0	-0.8
Aug.	23.1	132	44	0	0	44	88	0	0	-0.6
Sep.	20.2	96	50	0	0	50	46	0	0	-0.4
Oct.	14.7	57	54	0	0	54	3	0	0	0.0
Nov.	8.6	23	50	27	27	23	0	0	0	1.1
Dec.	5.8	13	45	32	59	13	0	0	0	2.4
Year	13.3	736	516	*	*	502	235	14	14	*

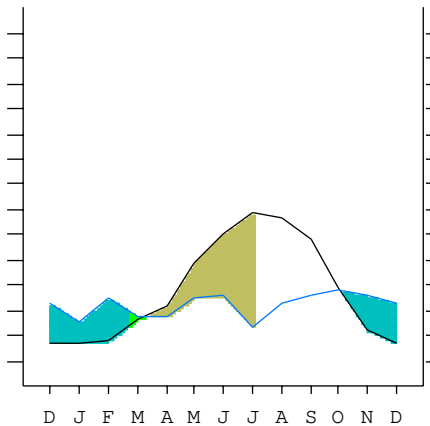
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

VALLANCA (ESP VALENCIA)

40°4'N 1°20'W 970 m 14/14 y.

T= 13.3 Ic= 18.0 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= -1.0 Tp= 1593 UPPER MESOMEDITERRANEAN
 M= 11.3 Tn= 0 UPPER DRY
 M' = 36.7 Itc= 236
 m' = -7.7 Io= 3.2
 P= 516 mm ———
 PE= 736 mm ———

Imbibing	4 Oct.
Saturation	22 Feb.
Reserve Use	11 Mar.
Deficit	5 Jul.



VALLANCA (ESP VALENCIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [B1a]
 + Type: B. Oceanic
 + Subtype: 1. Semicontinental
 + Variant: a. Low
 Thermic types [B1.B4]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. Low Eutemperate
 + Thermic type: B. Temperate
 + Thermic subtype: 4. Temperate
 Bioclimatic types [B8.3a.5a]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant .:
 + Thermic type.....: 3. MESOMEDITERRANEAN
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : a. UPPER
 Bioclimatic ClassificationMepo.Mme.Dry.Sec

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 274
 Coldest semester of the year.....(Psw): 242
 Warmest four months period of the year.....(Pcm1): 171
 Following warmest four months period.....(Pcm2): 177
 Positive precipitation dryest 3 months.....(Ppd): 112
 Positive precipitation dryest 2 months.....(Ppd2): 69
 Positive precipitation dryest 1 month.....(Ppd1): 25
 Positive precipitation warmest 3 months.....(Pps): 119
 Positive precipitation warmest 2 months.....(Pps2): 69
 Positive precipitation warmest 1 month.....(Pps1): 44
 Positive precipitation coldest 3 months.....(Ppw): 122
 Positive precipitation coldest 2 months.....(Ppw2): 73
 Positive precipitation coldest 1 month.....(Ppw1): 28

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	122	119	121	154

Seasonal rainfall rhythms: F > W > S > P

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 23.1
 Average coldest month [T].....(Tmin): 5.1
 Maximum temp. warmest month [M].....(Tmmax): 31.8
 Minimum temp. coldest month [m].....(Tmmin): -1.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 36.7
 Absolute Min.temp. coldest month [m'].....(Tamin): -7.7
 First warmest contrasted month [M].....(Tcmax): 31.8 (8)
 First coldest contrasted month [m].....(Tcmin): 14.4 (8)
 Estival temperature.....(Ts): 643
 Positive temperature dryest 3 months.....(Tpd): 200
 Positive temperature dryest 2 months.....(Tpd2): 460
 Positive temperature dryest 1 month.....(Tpd1): 229
 Positive temperature warmest 3 months.....(Tps): 662
 Positive temperature warmest 2 months.....(Tps2): 460
 Positive temperature warmest 1 month.....(Tps1): 231
 Positive temperature coldest 3 months.....(Tpw): 168
 Positive temperature coldest 2 months.....(Tpw2): 109
 Positive temperature coldest 1 month.....(Tpw1): 51

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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)	o	o										o
Pregelid.....[m' <=0] (Pf)	o	o	o	o							o	o
Agelid.....[m' > 0] (Pf)					o	o	o	o	o	o		
HiperAgelid..[all>0] (Pf)					o	o	o	o	o	o		

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.43
 Mediterranean index of July.[PE/P].....(Im1): 5.60
 Mediterranean index of July & August.....(Im2): 3.94
 Mediterranean index of June, July & August....(Im3): 3.08

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	450	280	490	350	350	490	520	250	440	500	540	500
Tp	58	51	59	90	107	150	183	229	231	202	147	86
Io (Iom)	7.76	5.49	8.31	3.89	3.27	3.27	2.84	1.09	1.90	2.48	3.67	5.81
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	1220 / 168			1190 / 347			1210 / 643			1540 / 435		
Io (Iot)	7.262			3.429			1.882			3.540		
Semesters	December-May						June-November					
Pp(x10)/Tp	2410 / 515						2750 / 1078					
Io (Iosm)	4.680						2.551					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 5160/1593=3.24 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	450	280	490	350	350	490	520	250	440	500	540	500
TP [T*10]	58	51	59	90	107	150	183	229	231	202	147	86
Iom [Pp/TP]	776	549	831	389	327	327	284	109	190	248	367	581
Avm [200-Iom]	***	***	***	***	***	***	***	91	10	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	1220 / 168			1190 / 347			1210 / 643			1540 / 435		
Iot [Pp/TP]	726			343			188			354		
Avs E[Avm<200]	***			***			***			***		
Strong lower semiarid [1]							Weak upper semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp): 18.00
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]	27.14
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	25.91
+ Oceanic (20<CI<40)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	1.25
+ Subcontinental (1.1<CI<1.7)	
Rainfall Index of Lang (1925) [R=P/T]	38.87
+ Steppic (40>R>0)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	22.17
+ Subhumid (30>Ia>20)	
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]	51.08
+ Subhumid (90>Q>50)	
I of Dantin & Revenga (1940) [DR=100*T/P]	2.57
+ Semiarid (3>DR>2)	
Aridity Index of UNEP [I=P/PE]	0.70
+ Humid (I>0.65)	
Potencial Erosion I of Fournier (1960) [K=Pi ² /P].....	5.65
+ Very low (K<60)	

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate A. Warm and temperate warm
 + Region 3. Termoxeroteric (Mediterranean warm)
 + Thermic type: 4. Mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.16	0.29	0.18	0.17	0.22	0.21	0.08	0.15	0.19	0.24	0.27	0.27
T-E ratio	2.29	2.66	4.05	4.81	6.75	8.23	10.30	10.40	9.09	6.61	3.87	2.61
Precipitation-effectiveness: 24.40						Temperature-efficiency: 71.69						
Moisture Index [MI=100*(P-PE)/PE]												
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]												
+ Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]												
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												
+ Second mesothermic (712<PE<855)												

