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## AKROTIRI, Cyprus

WMO#: **176010**

Lat: **34.57N** Long: **32.97E** Elev: **23** StdP: **101.05** Time Zone: **2.00 (EUE)** Period: **86-10** WBAN: **99999**

### Annual Heating and Humidification Design Conditions

| | Coldest Month | Heating DB | | Humidification DP/MCDB and HR | | | | | | Coldest month WS/MCDB | | | | MCWS/PCWD to 99.6% DB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 99.6% | | | 99% | | | 0.4% | | 1% | | | | |
| | | 99.6% | 99% | DP | HR | MCDB | DP | HR | MCDB | WS | MCDB | WS | MCDB | MCWS | PCWD | |
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | |
| (1) | **1** | **5.1** | **6.5** | **-3.5** | **2.8** | **9.0** | **-1.5** | **3.3** | **9.7** | **12.4** | **13.3** | **11.5** | **13.8** | **2.1** | **330** | (1) |

### 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 | |
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) | |
| (2) | **8** | **7.1** | **33.0** | **22.3** | **31.9** | **22.6** | **30.8** | **23.1** | **26.2** | **29.4** | **25.7** | **29.0** | **25.2** | **28.7** | **3.9** | **260** | (2) |

| | Dehumidification DP/MCDB and HR | | | | | | | | | Enthalpy/MCDB | | | | | | Hours 8 to 4 & 12.8/20.6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.4% | | | 1% | | | 2% | | | 0.4% | | 1% | | 2% | | | |
| | DP | HR | MCDB | DP | HR | MCDB | DP | HR | MCDB | Enth | MCDB | Enth | MCDB | Enth | MCDB | | |
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) | |
| (3) | **25.2** | **20.4** | **28.3** | **24.8** | **19.9** | **28.1** | **24.1** | **19.0** | **27.7** | **82.2** | **29.3** | **79.6** | **29.2** | **77.4** | **28.7** | **1232** | (3) |

### Extreme Annual Design Conditions

| | Extreme Annual WS | | | Extreme Max WB | Extreme Annual DB | | | | n-Year Return Period Values of Extreme DB | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 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 | |
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) | |
| (4) | **10.7** | **9.7** | **8.8** | **29.9** | **2.4** | **36.2** | **1.9** | **1.8** | **1.0** | **37.5** | **-0.1** | **38.6** | **-1.2** | **39.6** | **-2.6** | **40.9** | (4) |

### Monthly Climatic Design Conditions

| | | | | Annual (d) | Jan (e) | Feb (f) | Mar (g) | Apr (h) | May (i) | Jun (j) | Jul (k) | Aug (l) | Sep (m) | Oct (n) | Nov (o) | Dec (p) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (5) | Temperatures, Degree-Days and Degree-Hours | Tavg | | **19.6** | **12.6** | **12.6** | **14.3** | **17.3** | **20.8** | **24.4** | **26.7** | **27.1** | **25.0** | **22.1** | **17.6** | **14.2** | (5) |
| (6) | | Sd | | | **2.19** | **2.34** | **2.21** | **2.54** | **2.52** | **2.08** | **1.59** | **1.41** | **1.49** | **2.22** | **2.63** | **2.33** | (6) |
| (7) | | HDD10.0 | | **13** | **4** | **6** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | (7) |
| (8) | | HDD18.3 | | **693** | **179** | **161** | **127** | **48** | **6** | **0** | **0** | **0** | **0** | **2** | **41** | **129** | (8) |
| (9) | | CDD10.0 | | **3517** | **84** | **78** | **133** | **220** | **335** | **432** | **519** | **529** | **451** | **374** | **229** | **132** | (9) |
| (10) | | CDD18.3 | | **1154** | **0** | **0** | **2** | **18** | **82** | **182** | **261** | **271** | **201** | **118** | **21** | **1** | (10) |
| (11) | | CDH23.3 | | **9967** | **0** | **0** | **4** | **86** | **409** | **1374** | **2689** | **2924** | **1707** | **699** | **73** | **1** | (11) |
| (12) | | CDH26.7 | | **2917** | **0** | **0** | **0** | **16** | **103** | **358** | **890** | **997** | **426** | **123** | **4** | **0** | (12) |
| (13) | Precipitation | PrecAvg | | **368** | **70** | **77** | **49** | **18** | **3** | **1** | **0** | **0** | **0** | **23** | **48** | **79** | (13) |
| (14) | | PrecMax | | **1231** | **255** | **267** | **208** | **206** | **219** | **108** | **48** | **78** | **362** | **149** | **178** | **368** | (14) |
| (15) | | PrecMin | | **693** | **16** | **36** | **40** | **2** | **1** | **1** | **1** | **1** | **7** | **13** | **9** | **1** | (15) |
| (16) | | PrecSD | | **175.8** | **82.1** | **63.5** | **48.6** | **61.4** | **61.4** | **33.0** | **16.8** | **24.6** | **90.2** | **47.4** | **40.0** | **87.0** | (16) |
| (17) | Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures | 0.4% | DB | | **19.5** | **20.1** | **23.3** | **29.0** | **32.5** | **34.0** | **34.9** | **34.2** | **33.0** | **31.5** | **27.2** | **22.0** | (17) |
| (18) | | | MCWB | | **14.7** | **14.4** | **14.8** | **16.7** | **17.9** | **19.9** | **21.8** | **23.5** | **21.0** | **19.7** | **18.9** | **15.9** | (18) |
| (19) | | 2% | DB | | **18.3** | **18.9** | **21.1** | **25.6** | **29.2** | **31.5** | **32.9** | **32.8** | **30.9** | **29.4** | **25.1** | **20.6** | (19) |
| (20) | | | MCWB | | **13.7** | **13.9** | **14.7** | **16.2** | **17.9** | **20.3** | **23.0** | **23.8** | **22.0** | **20.1** | **17.8** | **15.3** | (20) |
| (21) | | 5% | DB | | **17.8** | **17.9** | **19.8** | **23.7** | **27.2** | **30.0** | **31.5** | **31.5** | **29.9** | **27.9** | **24.0** | **19.7** | (21) |
| (22) | | | MCWB | | **13.4** | **13.4** | **14.3** | **15.9** | **18.3** | **20.7** | **23.4** | **24.4** | **22.4** | **20.0** | **17.6** | **14.8** | (22) |
| (23) | | 10% | DB | | **16.9** | **17.0** | **18.6** | **21.9** | **25.3** | **28.8** | **30.3** | **30.5** | **29.0** | **26.8** | **22.8** | **18.7** | (23) |
| (24) | | | MCWB | | **12.9** | **12.7** | **13.9** | **15.7** | **18.4** | **21.3** | **23.9** | **24.5** | **22.5** | **20.1** | **17.1** | **14.3** | (24) |
| (25) | Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures | 0.4% | WB | | **16.1** | **15.7** | **16.7** | **18.6** | **22.0** | **24.8** | **27.0** | **27.2** | **25.7** | **23.7** | **20.6** | **17.7** | (25) |
| (26) | | | MCDB | | **18.4** | **18.6** | **20.3** | **23.5** | **25.5** | **28.4** | **30.1** | **30.2** | **28.9** | **27.7** | **24.7** | **20.6** | (26) |
| (27) | | 2% | WB | | **14.9** | **14.9** | **15.9** | **17.6** | **21.0** | **24.0** | **26.1** | **26.5** | **24.7** | **22.4** | **19.5** | **16.3** | (27) |
| (28) | | | MCDB | | **17.5** | **17.8** | **19.0** | **22.2** | **24.6** | **27.6** | **29.4** | **29.7** | **28.2** | **26.4** | **23.7** | **19.2** | (28) |
| (29) | | 5% | WB | | **14.0** | **14.1** | **15.2** | **17.1** | **20.2** | **23.4** | **25.6** | **26.0** | **24.1** | **21.6** | **18.5** | **15.5** | (29) |
| (30) | | | MCDB | | **16.8** | **17.0** | **18.5** | **21.2** | **23.9** | **26.9** | **28.9** | **29.2** | **27.8** | **25.8** | **22.7** | **18.6** | (30) |
| (31) | | 10% | WB | | **13.2** | **13.3** | **14.6** | **16.5** | **19.5** | **22.8** | **25.1** | **25.5** | **23.5** | **20.9** | **17.5** | **14.8** | (31) |
| (32) | | | MCDB | | **16.2** | **16.4** | **17.9** | **20.5** | **23.3** | **26.4** | **28.5** | **28.9** | **27.4** | **25.4** | **21.8** | **18.0** | (32) |
| (33) | Mean Daily Temperature Range | | MDBR | | **7.4** | **7.6** | **7.7** | **7.8** | **7.6** | **7.4** | **7.1** | **7.1** | **8.0** | **8.7** | **8.6** | **7.6** | (33) |
| (34) | | 5% DB | MCDBR | | **7.8** | **8.4** | **9.2** | **10.2** | **10.3** | **9.4** | **8.7** | **8.3** | **9.2** | **10.0** | **9.8** | **8.4** | (34) |
| (35) | | | MCWBR | | **5.3** | **5.7** | **5.7** | **5.1** | **5.3** | **5.8** | **5.9** | **6.1** | **6.9** | **7.2** | **6.9** | **5.6** | (35) |
| (36) | | 5% WB | MCDBR | | **7.1** | **7.8** | **8.0** | **8.4** | **8.1** | **7.7** | **7.6** | **7.6** | **8.1** | **8.8** | **8.8** | **7.5** | (36) |
| (37) | | | MCWBR | | **5.3** | **5.7** | **5.4** | **4.8** | **4.7** | **4.9** | **5.2** | **5.3** | **6.4** | **6.9** | **6.6** | **5.4** | (37) |
| (38) | Clear Sky Solar Irradiance | taub | | | **0.395** | **0.412** | **0.435** | **0.453** | **0.436** | **0.402** | **0.433** | **0.431** | **0.427** | **0.410** | **0.401** | **0.398** | (38) |
| (39) | | taud | | | **2.442** | **2.351** | **2.216** | **2.103** | **2.145** | **2.225** | **2.162** | **2.194** | **2.273** | **2.381** | **2.448** | **2.462** | (39) |
| (40) | | Ebn,noon | | | **799** | **825** | **835** | **837** | **854** | **880** | **850** | **846** | **832** | **816** | **786** | **772** | (40) |
| (41) | | Edh,noon | | | **91** | **110** | **135** | **158** | **154** | **142** | **150** | **143** | **126** | **105** | **90** | **85** | (41) |

Nomenclature: See separate page