

52010-1
Annex A

The shaded fields in the tables are part of the template and consequently not open for input.

A.2 References

The references, identified by the EPB module code number, are given in Table A.1 (template).

Table A.1 – References

| Reference | Reference document | |
|-------------------|--------------------|-------|
| | Number | Title |
| Mx-y ^a | | |
| | | |

^a In this document there are no choices in references to other EPB standards. The Table is kept to maintain uniformity between all EPB standards

A.3 Climatic input data

Table A.2 – Weather station and climatic data set (See 6.3.2)

| Name | Value | | | | | |
|--|---|-------|--------|--------------------------------|---------|----------------------|
| Identifier for climatic data set | ITM – Typical meteorological year | | | | | |
| Station and/or name of data set | Hungary | | | | | |
| | Symbol | Unit | Value | Validity interval ^a | Origin | Varying ^b |
| latitude | φ_w | ° | 47.430 | -90 to +90 | station | No |
| longitude ^c | λ_w | ° | 19.182 | -180 to +180 | station | No |
| time zone | TZ | h | +1 | -12 to +12 | station | No |
| First day of time series (day of the year) | n _{day,start} | - | 1 | 1 to 366 | station | No |
| Last day of time series (day of the year) | n _{day,end} | - | 365 | 1 to 366 | station | No |
| Day of the week for January 1 | | - | 1 | Monday to Sunday (day 1 to | station | No |
| Daylight saving time? ^c | Applicable for this station but disregarded. | | | | | |
| Leap day included | No | | | | | |
| Specific other information | | | | | | |
| | Name | Value | | | | |
| Reference to documentation on application range and type of data | Typical Meteorological Year data from PVGIS database, for the time period of 2007-2016. Available variables: Date&Time (UTC), Dry bulb temperature (°C),Relative Humidity (%), Global horizontal irradiance (W/m ²),Direct (beam) normal Irradiance (W/m ²),Diffuse horizontal irradiance (W/m ²), Infrared radiation downwards (W/m ²), Windspeed (m/s), Wind direction (°), Air pressure (Pa) | | | | | |

^a Practical range, informative.

^b "Varying": value may vary over time: different values per time interval, for instance: hourly values or monthly values (not constant values over the year).

^c If Yes: additional information to be added.

A.4 Calculation method

Table A.3 – Method to assess direct (beam) irradiance if not available from weather station

Table A.4 – Solar reflectivity of the ground ($q_{sol,grnd}$) (See 6.4.3)

| Name | Value ^a |
|---|--------------------|
| Fixed value | YES |
| Dependent on ground condition, listed in climatic data file | NO |
| Dependent on local ground condition (near the inclined surface) | NO |
| Values available in climatic data file | NO |

If fixed value:

Table A.5 – Solar reflectivity of the ground; if fixed value

| Name | Value |
|-----------------------------------|-------|
| Solar reflectivity of the ground, | 0.2 |

If dependent on ground condition:

Not applicable and therefore no Table A.6 given.

Table A.7 – Choice between options and methods for calculation of shading by external objects

(See 6.4.5.1)

| Application ^b | Simplified method | Detailed method |
|--|---------------------|-----------------|
| Description | Choice | Choice |
| Effect of shading calculated in this document? | No | Yes |
| If Yes: | Choice ^a | Choice |
| Only method 1, Simplified method (shading of direct radiation) | No | Yes |
| Only method 2, Detailed method (shading of direct and diffuse radiation) | No | No |
| Both methods are allowed | No | No |

Table A.8 – Number of skyline segments, $n_{sh;segm}$ for input solar shading objects (See 6.4.5.2)

| Application ^b | Simplified method | Detailed method |
|---|-------------------------------------|-------------------------------------|
| Description | Value of $n_{sh;segm}$ ^a | Value of $n_{sh;segm}$ ^a |
| Maximum number of segments over 360 degrees | Not applicable | 15 |
| Fixed width (= $360 / n_{sh;segm}$) ^c | Not applicable | No |

^a Practical range, informative.
^b Add more columns if needed to differentiate between applications (e.g. building categories, new or existing buildings, etc.).
^c If not fixed, the width of each segment can be adapted to the width of the shading object, with limitation of maximum number of segments $n_{sh;segm}$.

Table A.9 – Choice between methods for calculation of illuminance (See 6.4.6)

| Application^a | Simplified method | Detailed method |
|--|--------------------------|------------------------|
| Description | Choice | Choice |
| Method 1, Default method, or Method 2, Alternative method | Not applicable | Method 1 |
| If choice is method 2: | Description | Description |
| Describe method 2 | Not applicable | Not applicable |