

EC706

Cooling load

Release 4

EC706 is an **extension of the base module EC700**, energy performance calculation (both heating and cooling) according to UNI/TS 11300 Technical Specification. EC 706 works only if EC700 is already installed .

With just a few additional data input to EC700 Energy performance of buildings base module, EC706 provides a **cooling load calculation** according to Carrier method.

The hourly cooling load is calculated for all hours of the day from 8 a.m. to 6 p.m., for the design month and for all months from May to December.

The following contributions to the cooling load are taken into account: solar radiation, thermal transmission, ventilation, occupancy, electric appliances and other internal loads.

Località	Descrizione	Ora	Qr [kW]	Qc [kW]					
1	Ingresso	16	0	139	111	234	368	108	478
2	Cucina	16	181	303	210	441	1056	204	1260
3	Sala	16	238	847	615	1202	2504	597	3351
4	Camera 1	16	181	158	174	366	768	169	907
5	Camera 2	16	181	265	284	422	868	205	1169
6	Bagno	16	55	113	75	153	305	71	438
Totale			512	1888	1352	2622	6117	1361	7463

Results

The following calculation results and intermediate data are displayed in the output windows:

- solar radiation load through all glazed elements, for all rooms of the building
- Thermal transmission loads through all opaque and glazed elements in all rooms of the building.

The above results can be displayed for all months and for each considered hour (from 8 a.m. to 6 p.m.).

The following data are shown as well:

- ventilation thermal loads (divided into "latent" and "sensible"), occupancy internal loads (divided into "latent" and "sensible"), electric appliances load and other loads; these data are displayed for all considered hours and for all rooms of the building;
- the previously mentioned data are also displayed as totals for each thermal zone, at the peak-load hour for the room and at the peak-load hour for the zone.

Caric. Term.	Descrizione	Esposizione	Press. [kg/m²]	Area vetri [m²]	Rad. Sol. [W/m²]	Fat. Cor.	Fat. Ass.	Qr [kW]
W2	T. Facciata 120x100	SE	250	1.17	401.16	0.58	0.45	123
W1	T. Facciata 120x100	SE	250	1.89	401.16	0.50	0.45	199

Printed reports

All calculation reports are available as .RTF files. The user can complete and customize the report before final printing.

Archives

The software includes extensive archives. These are constantly updated and can also be updated and completed by the user:

- **climatica data** archive, covering 8000 municipalities in Italy;
- **building materials** archive, covering more than 1000 materials;
- **precalculated building elements** archive, that includes over 300 different building element types;
- **glazed modules** archive, that includes the most common window types;
- **linear thermal bridges** archive according to EN ISO 14683, with accompanying pictures to facilitate selection.