

List of Symbols

$A_{c,TDP}$ Heated surface of category c [m^2].

$A_{c,z}$ Per zone heated surface of category c [m^2].

COP_{HP} Coefficient of performance of a heat pump.

COP_R Coefficient of performance of a refrigerator.

η_{th}^{boil} Thermal efficiency of the boilers.

k_1 Slope of heating signature [$\frac{kW}{m^2K}$].

k_2 Y axis interception of the heating signature [$\frac{kW}{m^2}$].

nc Number of categories.

\dot{Q}_{cond} Heat exchanged in the condenser [W].

$q_{2009,c}^{heat}$ Specific heating energy for each category [$\frac{J}{m^2}$].

q_Y^{heat} Specific heating energy per year [$\frac{J}{m^2}$].

$\overline{Q}_{P,z}^{hot}$ Required per zone heating+DHW capacity for each period [$\frac{W}{period}$].

$Q_{2009,TDP}^{hot,boil}$ Required energy for 2009 in la TDP [J].

$q_{2009,c}^{hw}$ Specific DHW energy for each category [$\frac{J}{m^2}$].

T_{ext} Outdoor temperature [$^{\circ}C$].

T_m Mean outdoor temperature [$^{\circ}C$].

T_s Heating supply temperature [$^{\circ}C$].

T_{tr} Threshold temperature [$^{\circ}C$].

T_{tr}^{heat} Heat threshold temperature [$^{\circ}C$].

\dot{W} Work required to run the compressor [W].