## 1R1C 3R1C 5R1C

Internal temperature External Temperature	$T_{in}$ $T_e$	$T_{in}$ $T_{e}$	$egin{aligned} & \Theta_{\it in} \ & \Theta_{\it e} \ & \Theta_{\it sup} \end{aligned}$ $egin{aligned} & \Theta_{\it s} \ & \Theta_{\it s} \end{aligned}$	Mechanical ventilation supply temperature  Surface temperature  Temperature of thermal mass
Resistance of thermal envelope Equivalent resistance due to ventilation Equivalent resistance due to infiltration	Renv	$R_{env} \\ R_{vent}$ $R_{inf}$	H <sub>ve</sub>	Transmission coefficient due to ventilation and infiltration  Coupling conductance [W/k] between the air node and the surface node
			$H_{\mathrm{tr}, p}$ $H_{\mathrm{tr}, qp}$ $H_{\mathrm{tr}, em}$	Transmission coefficients of glazed elements and doors. Transmission coefficients of opaque elements Combined transmission of $H_{tr,\psi}$ and $H_{tr,\phi p}$
Capacitance of the room due to thermal mass	$C_{m}$	$C_{m}$	$C_{m}$	[J/K]
Heating or cooling supplied to the room (controlled using setpoints)		$\mathcal{Q}_{ ext{Heat}}$	$\Phi_{ ext{HC,nd}}$	Energy input from Heating and Cooling
Solar heat flux Anthropogenic heat flux (internal gains)		$egin{array}{c} \mathcal{Q}_{ ext{sol}} \ \mathcal{Q}_{ ext{Int}} \end{array}$	$\Phi_{ m sol} \ \Phi_{ m Int}$	$Q_{\text{sol}}/3600 \text{ [W]}$ $Q_{\text{int}}/3600 \text{ [W]}$
			$\Phi_{ m ia}$ $\Phi_{ m m}$	internal gains absorbed by air (equal to 0.5 $\Phi_{\text{Int}}$ ) [W] Portion of internal and solar gains absorbed by thermal mass of the envelope
			$\Phi_{ m st}$	Portion of internal and solar gains absorbed by interior thermal mass

Prefix	Suffix	Type	Construction Date
MULTI_RES	1	construction	1920
SINGLE_RES	2	construction	1920-1970
HOTEL	3	construction	1970-1980
OFFICE	4	construction	1980-2005
RETAIL	5	construction	2005-2020
FOODSTORE	6	construction	2020-2030
RESTAURANT	7	Renovation	1920
INDUSTRIAL	8	Renovation	1920-1970
SCHOOL	9	Renovation	1970-1980
HOSPITAL	10	Renovation	1980-2005
GYM	11	Renovation	2005-2020
	12	Renovation	2020-2030