













|               |   |
|---------------|---|
| $H$           | Total radiation, kWh  |
| $H_{D\theta}$ | Total daily radiation of inclined surface                                     |
| $I$           | Radiation intensity, W/m <sup>2</sup>   |
| $I_0$         | Solar constant: 1,353, W/m <sup>2</sup>                                       |
| $HIS$         | Intensity of diffuse sky radiation, W/m <sup>2</sup>                          |
| $I_r$         | Intensity of direct solar radiation on the ground, W/m <sup>2</sup>           |
| $L$           | Room depth, m   |
| $m$           | Air mass  |
| $M_r$         | Roof heating factor   |
| $M_w$         | Wall heating factor   |
| $N_q$         | Regional wall radiation constant  |
| $N_r$         | Regional roof radiation constant  |
| $P$           | Atmospheric transparency  |
| $q_H$         | Building heat loss, W/m <sup>2</sup>  |
| $q_{HT}$      | Heat loss via the envelope structure per unit building area, W/m <sup>2</sup> |
| $q_{INF}$     | Heat loss via air permeation per unit building area, W/m <sup>2</sup>         |
| $q_{IH}$      | Indoor heat gain per unit building area, W/m <sup>2</sup>                     |

|           |   |
|-----------|---|
| $Q$       | Heating consumption, kWh                |
| $S$       | Area, m <sup>2</sup>                    |
| $T$       | Sunshine duration, h                    |
| $T_{sta}$ | Time of sunrise, h                      |
| $T_{end}$ | Time of sunset, h                       |
| $z$       | Number of days in the heating season, d |

#### Greek symbols

|          |                                |
|----------|--------------------------------|
| $\theta$ | Inclination, °                 |
| $\alpha$ | Solar azimuth, °               |
| $\gamma$ | Azimuth of inclined surface, ° |
| $\eta$   | Utilization efficiency         |

#### Subscripts

|             |          |
|-------------|----------|
| <i>buil</i> | Building |
| <i>roof</i> | Roof     |
| <i>win</i>  | Window   |
| <i>wall</i> | Wall     |