**建筑节能设计报告书**

公共建筑

甲类

|  |  |
| --- | --- |
| 工程名称 | 新建项目 |
| 工程地点 | 陕西-西安 |
| 设计编号 |  |
| 建设单位 |  |
| 设计单位 |  |
| 设 计 人 |  |
| 校 对 人 |  |
| 审 核 人 |  |
| 设计日期 | 2021年12月15日 |



|  |  |
| --- | --- |
| 采用软件 | 节能设计BECS2020 |
| 软件版本 | 20210101 |
| 研发单位 | 北京绿建软件股份有限公司 |
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# 建筑概况

|  |  |  |
| --- | --- | --- |
| 工程名称 | 新建项目 | |
| 工程地点 | 陕西-西安 | |
| 地理位置 | 北纬：34.00° | 东经：108.93° |
| 建筑面积 | 地上2368㎡ 地下1259㎡ | |
| 建筑层数 | 地上6 地下2 | |
| 建筑高度 | 26.5m | |
| 建筑（节能计算）体积 | 10445.75 | |
| 建筑（节能计算）外表面积 | 2565.24 | |
| 北向角度 | 90 | |
| 结构类型 |  | |
| 外墙太阳辐射吸收系数 | 0.75 | |
| 屋顶太阳辐射吸收系数 | 0.75 | |

# 设计依据

1. 《公共建筑节能设计标准》(GB50189-2015)

2. 《民用建筑热工设计规范》(GB50176)

3. 《建筑外门窗气密，水密，抗风压性能分级及检测方法》（GB/T 7106-2008）

4. 《建筑幕墙》（GB/T 21086-2007）

# 建筑大样



-2F层平面



-1F层平面



立面图例



1F层平面



2F层平面



3F层平面



4F层平面



5F层平面



6F层平面

# 规定性指标检查

## 工程材料

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 | 导热系数λ | 蓄热系数S | 密度ρ | 比热容Cp | 蒸汽渗透系数u | 备注 |
| W/(m.K) | W/(㎡.K) | kg/m3 | J/(kg.K) | g/(m.h.kPa) |
| 水泥砂浆 | 0.930 | 11.370 | 1800.0 | 1050.0 | 0.0210 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 石灰砂浆 | 0.810 | 10.070 | 1600.0 | 1050.0 | 0.0443 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 钢筋混凝土 | 1.740 | 17.200 | 2500.0 | 920.0 | 0.0158 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 碎石、卵石混凝土(ρ=2300) | 1.510 | 15.360 | 2300.0 | 920.0 | 0.0173 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 0.030 | 0.340 | 35.0 | 1380.0 | 0.0000 | 来源：《民用建筑热工设计规范》GB50176-2016，蒸汽渗透系数没有给出 |
| 加气混凝土、泡沫混凝土(ρ=700) | 0.180 | 3.100 | 700.0 | 1050.0 | 0.0998 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 挤塑聚苯板(ρ=25-32) | 0.030 | 0.320 | 28.5 | 1647.0 | 0.0000 | （蒸汽渗透系数未给出）墙体外保温、屋面保温、楼板保温a=1.10 |
| 石灰水泥砂浆（混合砂浆） | 0.870 | 10.750 | 1700.0 | 1050.0 | 0.0975 | 蒸汽渗透系数为测定值 |
| 聚苯颗粒保温浆料(ρ=230) | 0.060 | 1.020 | 230.0 | 1036.0 | 0.0000 | （蒸汽渗透系数未给出）墙体外保温、内保温a=1.15 |

## 围护结构作法简要说明

**1. 屋顶构造：**屋顶构造一：（由上到下）

碎石、卵石混凝土(ρ=2300) 40mm＋挤塑聚苯乙烯泡沫塑料（带表皮） 55mm＋水泥砂浆 20mm＋加气混凝土、泡沫混凝土(ρ=700) 80mm＋钢筋混凝土 95mm＋石灰砂浆 20mm

**2. 外墙：**外墙构造一：（由外到内）

水泥砂浆 20mm＋挤塑聚苯乙烯泡沫塑料（带表皮） 80mm＋水泥砂浆 20mm＋钢筋混凝土 140mm＋石灰砂浆 20mm

**3. 热桥梁：**热桥梁构造一：（由外到内）

水泥砂浆 20mm＋挤塑聚苯乙烯泡沫塑料（带表皮） 80mm＋水泥砂浆 20mm＋钢筋混凝土 140mm＋石灰砂浆 20mm

**4. 挑空楼板构造：**挑空楼板构造一：（由上到下）

水泥砂浆 20mm＋钢筋混凝土 75mm＋水泥砂浆 20mm＋挤塑聚苯乙烯泡沫塑料（带表皮） 65mm＋水泥砂浆 20mm

**5. 采暖与非采暖隔墙：**控温房间隔墙构造一：

挤塑聚苯板(ρ=25-32) 20mm＋钢筋混凝土 200mm＋石灰水泥砂浆（混合砂浆） 20mm

**6. 幕墙：**塑钢Low-E中空玻璃窗(离线)(空气间层12mm)：

传热系数1.550W/m^2.K，太阳得热系数0.326

**7. 外窗：**塑钢Low-E中空玻璃窗(离线)(空气间层12mm)：

传热系数1.550W/m^2.K，太阳得热系数0.326

**8. 周边地面构造：**周边地面构造一：

碎石、卵石混凝土(ρ=2300) 30mm＋挤塑聚苯板(ρ=25-32) 20mm＋水泥砂浆 20mm＋钢筋混凝土 120mm

**9. 采暖地下室外墙构造：**地下墙构造一：

挤塑聚苯板(ρ=25-32) 25mm＋水泥砂浆 20mm＋钢筋混凝土 200mm＋石灰水泥砂浆（混合砂浆） 20mm

## 体形系数

|  |  |
| --- | --- |
| 外表面积 | 2565.24 |
| 建筑体积 | 10445.75 |
| 体形系数 | 0.25 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.2.1条 |
| 标准要求 | 严寒和寒冷地区体形系数应符合表3.2.1的规定(s≤0.40) |
| 结论 | 满足 |

## 窗墙比

### 窗墙比

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗面积(㎡) | 墙面积(㎡) | 窗墙比 | 限值 | 结论 |
| 南向 | 南-默认立面 | 654.91 | 967.62 | 0.68 | 0.70 | 适宜 |
| 北向 | 北-默认立面 | 657.04 | 958.35 | 0.69 | 0.70 | 适宜 |
| 东向 | 东-默认立面 | 206.61 | 302.05 | 0.68 | 0.70 | 适宜 |
| 西向 | 西-默认立面 | 183.49 | 303.67 | 0.60 | 0.70 | 适宜 |
| 标准依据 | | 《公共建筑节能设计标准》(GB50189-2015)第3.2.2条 | | | | |
| 标准要求 | | 寒冷地区甲类公共建筑各单一立面窗墙面积比 (包括透光幕墙 )均不宜大于0.70 | | | | |
| 结论 | | 适宜 | | | | |

### 外窗表

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 编号 | 尺寸 | 楼层 | 数量 | 单个面积 （㎡） | 合计面积 （㎡） |
| 南向 | 南-默认立面 654.91 |  | 0.56×4.20 | 2 | 1 | 2.35 | 2.35 |
|  | 0.85×0.90 | 2~5 | 52 | 0.77 | 39.78 |
|  | 0.85×1.80 | 2 | 13 | 1.53 | 19.89 |
|  | 0.57×4.20 | 2 | 1 | 2.39 | 2.39 |
|  | 1.68×4.20 | 2 | 1 | 7.04 | 7.04 |
|  | 0.50×4.20 | 2 | 1 | 2.10 | 2.10 |
|  | 0.80×4.20 | 2 | 1 | 3.34 | 3.34 |
|  | 3.28×4.20 | 2 | 1 | 13.78 | 13.78 |
|  | 1.42×4.20 | 2 | 1 | 5.96 | 5.96 |
|  | 1.10×4.20 | 2 | 1 | 4.62 | 4.62 |
|  | 0.58×4.20 | 2 | 1 | 2.43 | 2.43 |
|  | 1.28×4.20 | 2 | 1 | 5.39 | 5.39 |
|  | 0.71×4.20 | 2 | 1 | 3.00 | 3.00 |
|  | 0.82×4.20 | 2 | 1 | 3.45 | 3.45 |
|  | 0.70×4.20 | 2 | 1 | 2.96 | 2.96 |
|  | 0.51×4.20 | 2 | 1 | 2.14 | 2.14 |
|  | 0.93×4.20 | 2 | 1 | 3.90 | 3.90 |
|  | 5.04×4.20 | 2 | 1 | 21.15 | 21.15 |
|  | 1.43×4.20 | 2 | 1 | 5.99 | 5.99 |
|  | 0.80×4.20 | 2 | 1 | 3.36 | 3.36 |
|  | 0.48×3.80 | 3 | 1 | 1.83 | 1.83 |
|  | 0.85×1.40 | 3~5 | 39 | 1.19 | 46.41 |
|  | 0.66×3.80 | 3 | 1 | 2.51 | 2.51 |
|  | 0.96×3.80 | 3 | 1 | 3.64 | 3.64 |
|  | 1.33×3.80 | 3 | 1 | 5.04 | 5.04 |
|  | 0.51×3.80 | 3 | 1 | 1.94 | 1.94 |
|  | 0.57×3.80 | 3 | 1 | 2.18 | 2.18 |
|  | 1.04×3.80 | 3 | 1 | 3.93 | 3.93 |
|  | 0.76×3.80 | 3 | 1 | 2.90 | 2.90 |
|  | 1.22×3.80 | 3 | 1 | 4.63 | 4.63 |
|  | 2.00×3.80 | 3 | 1 | 7.60 | 7.60 |
|  | 2.38×3.80 | 3 | 1 | 9.03 | 9.03 |
|  | 0.66×3.80 | 3 | 1 | 2.49 | 2.49 |
|  | 0.92×3.80 | 3 | 1 | 3.48 | 3.48 |
|  | 1.00×3.80 | 3 | 1 | 3.82 | 3.82 |
|  | 0.84×3.80 | 3 | 1 | 3.19 | 3.19 |
|  | 0.69×3.80 | 3 | 1 | 2.60 | 2.60 |
|  | 6.18×3.80 | 3 | 1 | 23.47 | 23.47 |
|  | 1.02×3.80 | 3 | 1 | 3.89 | 3.89 |
|  | 1.20×3.80 | 3 | 1 | 4.56 | 4.56 |
|  | 0.08×3.80 | 4 | 1 | 0.29 | 0.29 |
|  | 0.92×3.80 | 4 | 1 | 3.50 | 3.50 |
|  | 1.43×3.80 | 4 | 1 | 5.42 | 5.42 |
|  | 0.83×3.80 | 4 | 2 | 3.14 | 6.27 |
|  | 0.62×3.80 | 4 | 1 | 2.35 | 2.35 |
|  | 0.15×3.80 | 4 | 1 | 0.56 | 0.56 |
|  | 2.22×3.80 | 4 | 1 | 8.45 | 8.45 |
|  | 1.50×3.80 | 4 | 1 | 5.70 | 5.70 |
|  | 1.31×3.80 | 4 | 1 | 4.99 | 4.99 |
|  | 0.33×3.80 | 4 | 1 | 1.26 | 1.26 |
|  | 5.32×3.80 | 4 | 1 | 20.21 | 20.21 |
|  | 0.53×3.80 | 4 | 1 | 2.00 | 2.00 |
|  | 1.03×3.80 | 4 | 1 | 3.90 | 3.90 |
|  | 0.69×3.80 | 4 | 1 | 2.61 | 2.61 |
|  | 1.09×3.80 | 4 | 1 | 4.13 | 4.13 |
|  | 0.77×3.80 | 4 | 1 | 2.94 | 2.94 |
|  | 1.59×3.80 | 4 | 1 | 6.04 | 6.04 |
|  | 0.64×3.80 | 4 | 1 | 2.42 | 2.42 |
|  | 0.57×3.80 | 5 | 1 | 2.17 | 2.17 |
|  | 0.77×3.80 | 5 | 1 | 2.93 | 2.93 |
|  | 1.05×3.80 | 5 | 1 | 3.99 | 3.99 |
|  | 1.22×3.80 | 5 | 1 | 4.62 | 4.62 |
|  | 0.50×3.80 | 5 | 1 | 1.88 | 1.88 |
|  | 2.20×3.80 | 5 | 1 | 8.35 | 8.35 |
|  | 1.16×3.80 | 5 | 1 | 4.41 | 4.41 |
|  | 1.12×3.80 | 5 | 1 | 4.24 | 4.24 |
|  | 0.48×3.80 | 5 | 1 | 1.81 | 1.81 |
|  | 0.64×3.80 | 5 | 1 | 2.42 | 2.42 |
|  | 1.14×3.80 | 5 | 1 | 4.32 | 4.32 |
|  | 0.90×3.80 | 5 | 1 | 3.42 | 3.42 |
|  | 0.99×3.80 | 5 | 1 | 3.75 | 3.75 |
|  | 0.44×3.80 | 5 | 1 | 1.66 | 1.66 |
|  | 0.61×3.80 | 5 | 1 | 2.30 | 2.30 |
|  | 1.62×3.80 | 5 | 1 | 6.16 | 6.16 |
|  | 5.00×3.80 | 5 | 1 | 18.98 | 18.98 |
|  | 1.05×3.80 | 5 | 1 | 3.99 | 3.99 |
|  | 0.43×3.80 | 5 | 1 | 1.63 | 1.63 |
|  | 7.50×3.80 | 6 | 3 | 28.50 | 85.50 |
|  | 3.08×3.80 | 6 | 1 | 11.69 | 11.69 |
|  | 8.22×3.80 | 6 | 1 | 31.23 | 31.23 |
| C0815 | 0.85×1.50 | 2~4 | 38 | 1.28 | 48.45 |
| C0915 | 0.85×1.50 | 5 | 14 | 1.28 | 17.85 |
| 北向 | 北-默认立面 657.04 |  | 2.59×4.20 | 2 | 1 | 10.87 | 10.87 |
|  | 0.85×0.90 | 2~6 | 58 | 0.77 | 44.37 |
|  | 0.85×1.80 | 2 | 15 | 1.53 | 22.95 |
|  | 1.08×4.20 | 2 | 1 | 4.52 | 4.52 |
|  | 0.67×4.20 | 2 | 1 | 2.80 | 2.80 |
|  | 0.39×4.20 | 2 | 1 | 1.65 | 1.65 |
|  | 0.74×4.20 | 2 | 1 | 3.10 | 3.10 |
|  | 1.28×4.20 | 2 | 1 | 5.39 | 5.39 |
|  | 1.00×4.20 | 2 | 1 | 4.22 | 4.22 |
|  | 0.52×4.20 | 2 | 1 | 2.16 | 2.16 |
|  | 0.56×4.20 | 2 | 1 | 2.35 | 2.35 |
|  | 0.64×4.20 | 2 | 1 | 2.69 | 2.69 |
|  | 1.02×4.20 | 2 | 1 | 4.28 | 4.28 |
|  | 1.19×4.20 | 2 | 1 | 5.01 | 5.01 |
|  | 0.60×4.20 | 2 | 1 | 2.50 | 2.50 |
|  | 0.65×4.20 | 2 | 1 | 2.73 | 2.73 |
|  | 1.16×4.20 | 2 | 1 | 4.85 | 4.85 |
|  | 1.07×4.20 | 2 | 1 | 4.49 | 4.49 |
|  | 1.42×4.20 | 2 | 1 | 5.96 | 5.96 |
|  | 1.60×4.20 | 2 | 1 | 6.71 | 6.71 |
|  | 2.13×4.20 | 2 | 1 | 8.96 | 8.96 |
|  | 0.70×4.20 | 2 | 1 | 2.94 | 2.94 |
|  | 1.22×3.80 | 3 | 1 | 4.65 | 4.65 |
|  | 0.85×1.40 | 3~6 | 43 | 1.19 | 51.17 |
|  | 1.00×3.80 | 3 | 1 | 3.80 | 3.80 |
|  | 0.31×3.80 | 3 | 1 | 1.19 | 1.19 |
|  | 1.12×3.80 | 3 | 1 | 4.27 | 4.27 |
|  | 1.30×3.80 | 3 | 1 | 4.95 | 4.95 |
|  | 1.12×3.80 | 3 | 1 | 4.27 | 4.27 |
|  | 0.24×3.80 | 3 | 1 | 0.90 | 0.90 |
|  | 0.59×3.80 | 3 | 1 | 2.24 | 2.24 |
|  | 1.44×3.80 | 3 | 1 | 5.48 | 5.48 |
|  | 1.04×3.80 | 3~4 | 2 | 3.96 | 7.92 |
|  | 0.75×3.80 | 3 | 1 | 2.84 | 2.84 |
|  | 0.28×3.80 | 3 | 1 | 1.06 | 1.06 |
|  | 1.80×3.80 | 3 | 1 | 6.84 | 6.84 |
|  | 0.79×3.80 | 3 | 1 | 2.98 | 2.98 |
|  | 0.80×3.80 | 3 | 1 | 3.06 | 3.06 |
|  | 0.74×3.80 | 3 | 1 | 2.80 | 2.80 |
|  | 0.60×3.80 | 3 | 1 | 2.27 | 2.27 |
|  | 1.41×3.80 | 3 | 1 | 5.36 | 5.36 |
|  | 1.88×3.80 | 3 | 1 | 7.13 | 7.13 |
|  | 1.84×3.80 | 3 | 1 | 6.98 | 6.98 |
|  | 0.73×3.80 | 3 | 1 | 2.76 | 2.76 |
|  | 3.44×3.80 | 4 | 1 | 13.09 | 13.09 |
|  | 1.33×3.80 | 4 | 1 | 5.05 | 5.05 |
|  | 0.80×3.80 | 4 | 1 | 3.04 | 3.04 |
|  | 1.26×3.80 | 4 | 1 | 4.78 | 4.78 |
|  | 0.97×3.80 | 4 | 1 | 3.68 | 3.68 |
|  | 0.78×3.80 | 4 | 1 | 2.95 | 2.95 |
|  | 1.14×3.80 | 4 | 1 | 4.33 | 4.33 |
|  | 0.88×3.80 | 4 | 1 | 3.33 | 3.33 |
|  | 0.89×3.80 | 4 | 1 | 3.37 | 3.37 |
|  | 0.42×3.80 | 4 | 1 | 1.61 | 1.61 |
|  | 0.65×3.80 | 4 | 1 | 2.46 | 2.46 |
|  | 1.00×3.80 | 4 | 1 | 3.78 | 3.78 |
|  | 2.27×3.80 | 4 | 1 | 8.61 | 8.61 |
|  | 1.28×3.80 | 4 | 1 | 4.86 | 4.86 |
|  | 2.01×3.80 | 4 | 1 | 7.65 | 7.65 |
|  | 1.81×3.80 | 4 | 1 | 6.87 | 6.87 |
|  | 0.75×3.80 | 4 | 1 | 2.85 | 2.85 |
|  | 0.58×3.80 | 5 | 1 | 2.22 | 2.22 |
|  | 3.64×3.80 | 5 | 1 | 13.82 | 13.82 |
|  | 0.77×3.80 | 5 | 1 | 2.93 | 2.93 |
|  | 0.79×3.80 | 5 | 1 | 3.00 | 3.00 |
|  | 0.28×3.80 | 5 | 1 | 1.05 | 1.05 |
|  | 0.99×3.80 | 5 | 1 | 3.75 | 3.75 |
|  | 1.03×3.80 | 5 | 1 | 3.92 | 3.92 |
|  | 1.26×3.80 | 5 | 1 | 4.80 | 4.80 |
|  | 0.54×3.80 | 5 | 1 | 2.06 | 2.06 |
|  | 1.15×3.80 | 5 | 1 | 4.37 | 4.37 |
|  | 0.69×3.80 | 5 | 1 | 2.63 | 2.63 |
|  | 3.81×3.80 | 5 | 1 | 14.46 | 14.46 |
|  | 3.70×3.80 | 5 | 1 | 14.04 | 14.04 |
|  | 0.59×3.80 | 5 | 1 | 2.24 | 2.24 |
|  | 0.42×3.80 | 5 | 1 | 1.59 | 1.59 |
|  | 0.25×3.80 | 5 | 1 | 0.93 | 0.93 |
|  | 1.44×3.80 | 5 | 1 | 5.46 | 5.46 |
|  | 0.79×3.80 | 5 | 1 | 2.99 | 2.99 |
|  | 2.62×3.80 | 6 | 1 | 9.97 | 9.97 |
|  | 7.50×3.80 | 6 | 2 | 28.50 | 57.00 |
|  | 7.28×3.80 | 6 | 1 | 27.65 | 27.65 |
|  | 3.08×3.80 | 6 | 1 | 11.69 | 11.69 |
|  | 0.77×3.80 | 6 | 1 | 2.91 | 2.91 |
|  | 0.78×3.80 | 6 | 1 | 2.95 | 2.95 |
|  | 0.36×3.80 | 6 | 1 | 1.36 | 1.36 |
|  | 1.37×3.80 | 6 | 1 | 5.20 | 5.20 |
| C0615 | 0.60×1.50 | 1 | 2 | 0.90 | 1.80 |
| C0815 | 0.85×1.50 | 2~4,6 | 45 | 1.28 | 57.38 |
| C0915 | 0.85×1.50 | 5~6 | 14 | 1.28 | 17.85 |
| C1219 | 1.20×1.90 | 1 | 1 | 2.28 | 2.28 |
| 东向 | 东-默认立面 206.61 |  | 1.61×4.20 | 2 | 1 | 6.75 | 6.75 |
|  | 0.85×0.90 | 2~5 | 16 | 0.77 | 12.24 |
|  | 0.85×1.80 | 2 | 4 | 1.53 | 6.12 |
|  | 1.13×4.20 | 2 | 1 | 4.74 | 4.74 |
|  | 1.98×4.20 | 2 | 1 | 8.30 | 8.30 |
|  | 1.23×4.20 | 2 | 1 | 5.18 | 5.18 |
|  | 1.31×4.20 | 2 | 1 | 5.49 | 5.49 |
|  | 1.34×3.80 | 3 | 1 | 5.07 | 5.07 |
|  | 0.85×1.40 | 3~5 | 12 | 1.19 | 14.28 |
|  | 1.26×3.80 | 3 | 1 | 4.80 | 4.80 |
|  | 1.88×3.80 | 3 | 1 | 7.13 | 7.13 |
|  | 1.54×3.80 | 3 | 1 | 5.83 | 5.83 |
|  | 1.24×3.80 | 3 | 1 | 4.72 | 4.72 |
|  | 1.57×3.80 | 4 | 1 | 5.95 | 5.95 |
|  | 1.46×3.80 | 4 | 1 | 5.54 | 5.54 |
|  | 1.63×3.80 | 4 | 1 | 6.18 | 6.18 |
|  | 1.84×3.80 | 4 | 1 | 6.98 | 6.98 |
|  | 0.76×3.80 | 4 | 1 | 2.90 | 2.90 |
|  | 0.77×3.80 | 5 | 1 | 2.94 | 2.94 |
|  | 1.54×3.80 | 5 | 1 | 5.84 | 5.84 |
|  | 2.97×3.80 | 5 | 1 | 11.29 | 11.29 |
|  | 1.13×3.80 | 5 | 1 | 4.30 | 4.30 |
|  | 0.84×3.80 | 5 | 1 | 3.18 | 3.18 |
|  | 10.65×3.80 | 6 | 1 | 40.47 | 40.47 |
| C0815 | 0.85×1.50 | 2~4 | 12 | 1.28 | 15.30 |
| C0915 | 0.85×1.50 | 5 | 4 | 1.28 | 5.10 |
| 西向 | 西-默认立面 183.49 |  | 3.18×4.20 | 2 | 1 | 13.34 | 13.34 |
|  | 0.85×0.90 | 2~6 | 7 | 0.77 | 5.36 |
|  | 0.85×1.80 | 2 | 1 | 1.53 | 1.53 |
|  | 0.93×4.20 | 2 | 1 | 3.89 | 3.89 |
|  | 4.50×4.20 | 2 | 1 | 18.89 | 18.89 |
|  | 3.44×3.80 | 3 | 1 | 13.07 | 13.07 |
|  | 0.85×1.40 | 3~6 | 6 | 1.19 | 7.14 |
|  | 0.66×3.80 | 3 | 1 | 2.52 | 2.52 |
|  | 4.50×3.80 | 3 | 1 | 17.09 | 17.09 |
|  | 2.15×3.80 | 4 | 1 | 8.15 | 8.15 |
|  | 0.29×3.80 | 4 | 1 | 1.12 | 1.12 |
|  | 0.82×3.80 | 4 | 1 | 3.10 | 3.10 |
|  | 4.49×3.80 | 4 | 1 | 17.07 | 17.07 |
|  | 4.50×3.80 | 5 | 1 | 17.11 | 17.11 |
|  | 0.67×3.80 | 5 | 1 | 2.56 | 2.56 |
|  | 3.42×3.80 | 5 | 1 | 13.01 | 13.01 |
|  | 4.56×3.80 | 6 | 1 | 17.33 | 17.33 |
|  | 0.71×3.80 | 6 | 1 | 2.70 | 2.70 |
|  | 0.31×3.80 | 6 | 1 | 1.16 | 1.16 |
|  | 2.22×3.80 | 6 | 1 | 8.42 | 8.42 |
| C0815 | 0.85×1.50 | 2~4,6 | 6 | 1.28 | 7.65 |
| C0915 | 0.85×1.50 | 5 | 1 | 1.28 | 1.28 |

## 可见光透射比

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗墙比 | 最不利窗编号 | 最不利透射比 | 透射比限值 |
| 南向 | 南-默认立面 | 0.68 |  | 0.62 | 0.40 |
| 北向 | 北-默认立面 | 0.69 | C0915 | 0.62 | 0.40 |
| 东向 | 东-默认立面 | 0.68 |  | 0.62 | 0.40 |
| 西向 | 西-默认立面 | 0.60 |  | 0.62 | 0.40 |
| 标准依据 | | 《公共建筑节能设计标准》(GB50189-2015)第3.2.4条 | | | |
| 标准要求 | | 当窗墙面积比小于0.40时，玻璃的可见光透射比不应当小于0.6;当窗墙面积比大于等于0.40时，玻璃的可见光透射比不应当小于0.4; | | | |
| 结论 | | 满足 | | | |

## 天窗

### 天窗屋顶比

本工程无此项内容

### 天窗类型

本工程无此项内容

## 屋顶构造

### 屋顶构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由上到下） | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 碎石、卵石混凝土(ρ=2300) | 40 | 1.510 | 15.360 | 1.00 | 0.026 | 0.407 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 55 | 0.030 | 0.340 | 1.20 | 1.528 | 0.623 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 加气混凝土、泡沫混凝土(ρ=700) | 80 | 0.180 | 3.100 | 1.00 | 0.444 | 1.378 |
| 钢筋混凝土 | 95 | 1.740 | 17.200 | 1.00 | 0.055 | 0.939 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 310 | － | － | － | 2.100 | 3.840 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.15+∑R) | 0.45 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | K≤0.45,S≤0.30或K≤0.40,0.30<S≤0.50 | | | | | |
| 结论 | 满足 | | | | | |

## 外墙构造

### 外墙相关构造

#### 外墙构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由外到内） | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 80 | 0.030 | 0.340 | 1.20 | 2.222 | 0.907 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 140 | 1.740 | 17.200 | 1.00 | 0.080 | 1.384 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 280 | － | － | － | 2.370 | 3.028 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.15+∑R) | 0.40 | | | | | |

#### 热桥梁构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由外到内） | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 80 | 0.030 | 0.340 | 1.20 | 2.222 | 0.907 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 140 | 1.740 | 17.200 | 1.00 | 0.080 | 1.384 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 280 | － | － | － | 2.370 | 3.028 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.15+∑R) | 0.40 | | | | | |

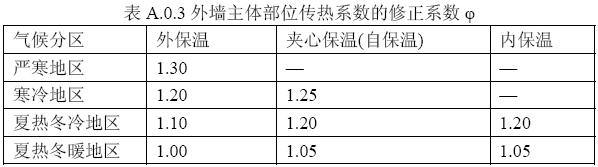
#### 热桥梁构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由外到内） | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 80 | 0.030 | 0.340 | 1.20 | 2.222 | 0.907 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 140 | 1.740 | 17.200 | 1.00 | 0.080 | 1.384 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 280 | － | － | － | 2.370 | 3.028 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.15+∑R) | 0.40 | | | | | |

#### 热桥柱构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由外到内） | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 60 | 0.030 | 0.340 | 1.20 | 1.667 | 0.680 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 160 | 1.740 | 17.200 | 1.00 | 0.092 | 1.582 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 280 | － | － | － | 1.826 | 2.999 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.15+∑R) | 0.51 | | | | | |

### 外墙主断面传热系数的修正系数ψ



### 外墙平均热工特性

1.　南向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 热桥梁构造一 | 热桥梁 | 160.58 | 0.518 | 0.40 | 3.03 | 0.75 |
| 外墙构造一 | 主墙体 | 149.20 | 0.482 | 0.40 | 3.03 | 0.75 |
| 合计 |  | 309.78 | 1.000 | 0.40 | 3.03 | 0.75 |
| 考虑线性热桥后K | 0.40 × 1.20 = 0.48 | | | | | |

2.　北向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 热桥梁构造一 | 热桥梁 | 161.25 | 0.535 | 0.40 | 3.03 | 0.75 |
| 外墙构造一 | 主墙体 | 140.06 | 0.465 | 0.40 | 3.03 | 0.75 |
| 合计 |  | 301.31 | 1.000 | 0.40 | 3.03 | 0.75 |
| 考虑线性热桥后K | 0.40 × 1.20 = 0.48 | | | | | |

3.　东向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 63.49 | 0.665 | 0.40 | 3.03 | 0.75 |
| 热桥梁构造一 | 热桥梁 | 31.95 | 0.335 | 0.40 | 3.03 | 0.75 |
| 合计 |  | 95.44 | 1.000 | 0.40 | 3.03 | 0.75 |
| 考虑线性热桥后K | 0.40 × 1.20 = 0.48 | | | | | |

4.　西向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 64.97 | 0.541 | 0.40 | 3.03 | 0.75 |
| 热桥梁构造一 | 热桥梁 | 55.21 | 0.459 | 0.40 | 3.03 | 0.75 |
| 合计 |  | 120.18 | 1.000 | 0.40 | 3.03 | 0.75 |
| 考虑线性热桥后K | 0.40 × 1.20 = 0.48 | | | | | |

5.　总体

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 417.73 | 0.505 | 0.40 | 3.03 | 0.75 |
| 热桥梁构造一 | 热桥梁 | 408.98 | 0.495 | 0.40 | 3.03 | 0.75 |
| 合计 |  | 826.71 | 1.000 | 0.40 | 3.03 | 0.75 |
| 考虑线性热桥后K | 0.40 × 1.20 = 0.48 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | K≤0.50,S≤0.30或K≤0.45,0.30<S≤0.50 | | | | | |
| 结论 | 满足 | | | | | |

## 挑空楼板构造

### 挑空楼板构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由上到下） | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 75 | 1.740 | 17.200 | 1.00 | 0.043 | 0.741 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 65 | 0.030 | 0.340 | 1.20 | 1.806 | 0.737 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 各层之和∑ | 200 | － | － | － | 1.913 | 2.212 |
| 传热系数K=1/(0.15+∑R) | 0.49 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | K≤0.50,S≤0.30或K≤0.45,0.30<S≤0.50 | | | | | |
| 结论 | 满足 | | | | | |

## 采暖与非采暖隔墙

### 控温房间隔墙构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 挤塑聚苯板(ρ=25-32) | 20 | 0.030 | 0.320 | 1.00 | 0.667 | 0.213 |
| 钢筋混凝土 | 200 | 1.740 | 17.200 | 1.00 | 0.115 | 1.977 |
| 石灰水泥砂浆（混合砂浆） | 20 | 0.870 | 10.750 | 1.00 | 0.023 | 0.247 |
| 各层之和∑ | 240 | － | － | － | 0.805 | 2.437 |
| 传热系数K=1/(0.22+∑R) | 0.98 | | | | | |
| 数据来源 | 《民用建筑节能设计标准陕西省实施细则》 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | K≤1.5 | | | | | |
| 结论 | 满足 | | | | | |

## 地下车库与供暖房间之间的楼板

本工程无此项内容

## 外窗热工

### 外窗构造

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 序号 | 构造名称 | 构造编号 | 传热系数 | 太阳得热系数 | 可见光透射比 | 备注 |
| 1 | 塑钢Low-E中空玻璃窗(离线)(空气间层12mm) | 65 | 1.55 | 0.33 | 0.620 | 《西安市居住建筑节能设计标准》 |
| 2 | 塑钢Low-E中空玻璃窗(离线)(空气间层12mm) | 18 | 1.55 | 0.33 | 0.620 | 《西安市居住建筑节能设计标准》 |

### 外遮阳类型

本工程无此内容

### 平均传热系数

1. 南向：

南-默认立面

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造编号 | 传热系数 |
| 1 |  | 2 | 1 | 2.352 | 2.352 | 65 | 1.550 |
| 2 |  | 2~5 | 52 | 0.765 | 39.780 | 65 | 1.550 |
| 3 |  | 2 | 13 | 1.530 | 19.890 | 65 | 1.550 |
| 4 |  | 2 | 1 | 2.386 | 2.386 | 65 | 1.550 |
| 5 |  | 2 | 1 | 7.035 | 7.035 | 65 | 1.550 |
| 6 |  | 2 | 1 | 2.104 | 2.104 | 65 | 1.550 |
| 7 |  | 2 | 1 | 3.343 | 3.343 | 65 | 1.550 |
| 8 |  | 2 | 1 | 13.784 | 13.784 | 65 | 1.550 |
| 9 |  | 2 | 1 | 5.956 | 5.956 | 65 | 1.550 |
| 10 |  | 2 | 1 | 4.620 | 4.620 | 65 | 1.550 |
| 11 |  | 2 | 1 | 2.428 | 2.428 | 65 | 1.550 |
| 12 |  | 2 | 1 | 5.389 | 5.389 | 65 | 1.550 |
| 13 |  | 2 | 1 | 2.999 | 2.999 | 65 | 1.550 |
| 14 |  | 2 | 1 | 3.448 | 3.448 | 65 | 1.550 |
| 15 |  | 2 | 1 | 2.957 | 2.957 | 65 | 1.550 |
| 16 |  | 2 | 1 | 2.142 | 2.142 | 65 | 1.550 |
| 17 |  | 2 | 1 | 3.902 | 3.902 | 65 | 1.550 |
| 18 |  | 2 | 1 | 21.151 | 21.151 | 65 | 1.550 |
| 19 |  | 2 | 1 | 5.989 | 5.989 | 65 | 1.550 |
| 20 |  | 2 | 1 | 3.356 | 3.356 | 65 | 1.550 |
| 21 |  | 3 | 1 | 1.828 | 1.828 | 65 | 1.550 |
| 22 |  | 3~5 | 39 | 1.190 | 46.410 | 65 | 1.550 |
| 23 |  | 3 | 1 | 2.508 | 2.508 | 65 | 1.550 |
| 24 |  | 3 | 1 | 3.644 | 3.644 | 65 | 1.550 |
| 25 |  | 3 | 1 | 5.035 | 5.035 | 65 | 1.550 |
| 26 |  | 3 | 1 | 1.942 | 1.942 | 65 | 1.550 |
| 27 |  | 3 | 1 | 2.177 | 2.177 | 65 | 1.550 |
| 28 |  | 3 | 1 | 3.933 | 3.933 | 65 | 1.550 |
| 29 |  | 3 | 1 | 2.896 | 2.896 | 65 | 1.550 |
| 30 |  | 3 | 1 | 4.632 | 4.632 | 65 | 1.550 |
| 31 |  | 3 | 1 | 7.600 | 7.600 | 65 | 1.550 |
| 32 |  | 3 | 1 | 9.025 | 9.025 | 65 | 1.550 |
| 33 |  | 3 | 1 | 2.489 | 2.489 | 65 | 1.550 |
| 34 |  | 3 | 1 | 3.477 | 3.477 | 65 | 1.550 |
| 35 |  | 3 | 1 | 3.819 | 3.819 | 65 | 1.550 |
| 36 |  | 3 | 1 | 3.192 | 3.192 | 65 | 1.550 |
| 37 |  | 3 | 1 | 2.603 | 2.603 | 65 | 1.550 |
| 38 |  | 3 | 1 | 23.465 | 23.465 | 65 | 1.550 |
| 39 |  | 3 | 1 | 3.891 | 3.891 | 65 | 1.550 |
| 40 |  | 3 | 1 | 4.564 | 4.564 | 65 | 1.550 |
| 41 |  | 4 | 1 | 0.293 | 0.293 | 65 | 1.550 |
| 42 |  | 4 | 1 | 3.500 | 3.500 | 65 | 1.550 |
| 43 |  | 4 | 1 | 5.423 | 5.423 | 65 | 1.550 |
| 44 |  | 4 | 2 | 3.135 | 6.270 | 65 | 1.550 |
| 45 |  | 4 | 1 | 2.352 | 2.352 | 65 | 1.550 |
| 46 |  | 4 | 1 | 0.559 | 0.559 | 65 | 1.550 |
| 47 |  | 4 | 1 | 8.447 | 8.447 | 65 | 1.550 |
| 48 |  | 4 | 1 | 5.696 | 5.696 | 65 | 1.550 |
| 49 |  | 4 | 1 | 4.986 | 4.986 | 65 | 1.550 |
| 50 |  | 4 | 1 | 1.258 | 1.258 | 65 | 1.550 |
| 51 |  | 4 | 1 | 20.212 | 20.212 | 65 | 1.550 |
| 52 |  | 4 | 1 | 2.003 | 2.003 | 65 | 1.550 |
| 53 |  | 4 | 1 | 3.895 | 3.895 | 65 | 1.550 |
| 54 |  | 4 | 1 | 2.611 | 2.611 | 65 | 1.550 |
| 55 |  | 4 | 1 | 4.131 | 4.131 | 65 | 1.550 |
| 56 |  | 4 | 1 | 2.941 | 2.941 | 65 | 1.550 |
| 57 |  | 4 | 1 | 6.038 | 6.038 | 65 | 1.550 |
| 58 |  | 4 | 1 | 2.417 | 2.417 | 65 | 1.550 |
| 59 |  | 5 | 1 | 2.166 | 2.166 | 65 | 1.550 |
| 60 |  | 5 | 1 | 2.926 | 2.926 | 65 | 1.550 |
| 61 |  | 5 | 1 | 3.986 | 3.986 | 65 | 1.550 |
| 62 |  | 5 | 1 | 4.621 | 4.621 | 65 | 1.550 |
| 63 |  | 5 | 1 | 1.881 | 1.881 | 65 | 1.550 |
| 64 |  | 5 | 1 | 8.349 | 8.349 | 65 | 1.550 |
| 65 |  | 5 | 1 | 4.412 | 4.412 | 65 | 1.550 |
| 66 |  | 5 | 1 | 4.237 | 4.237 | 65 | 1.550 |
| 67 |  | 5 | 1 | 1.813 | 1.813 | 65 | 1.550 |
| 68 |  | 5 | 1 | 2.421 | 2.421 | 65 | 1.550 |
| 69 |  | 5 | 1 | 4.324 | 4.324 | 65 | 1.550 |
| 70 |  | 5 | 1 | 3.420 | 3.420 | 65 | 1.550 |
| 71 |  | 5 | 1 | 3.754 | 3.754 | 65 | 1.550 |
| 72 |  | 5 | 1 | 1.661 | 1.661 | 65 | 1.550 |
| 73 |  | 5 | 1 | 2.299 | 2.299 | 65 | 1.550 |
| 74 |  | 5 | 1 | 6.156 | 6.156 | 65 | 1.550 |
| 75 |  | 5 | 1 | 18.981 | 18.981 | 65 | 1.550 |
| 76 |  | 5 | 1 | 3.990 | 3.990 | 65 | 1.550 |
| 77 |  | 5 | 1 | 1.634 | 1.634 | 65 | 1.550 |
| 78 |  | 6 | 3 | 28.500 | 85.500 | 65 | 1.550 |
| 79 |  | 6 | 1 | 11.685 | 11.685 | 65 | 1.550 |
| 80 |  | 6 | 1 | 31.230 | 31.230 | 65 | 1.550 |
| 81 | C0815 | 2~4 | 38 | 1.275 | 48.450 | 18 | 1.550 |
| 82 | C0915 | 5 | 14 | 1.275 | 17.850 | 18 | 1.550 |
| 立面总面积(㎡) | | | 654.915 | 立面平均传热系数 | | | 1.550 |

2. 北向：

北-默认立面

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造编号 | 传热系数 |
| 1 |  | 2 | 1 | 10.870 | 10.870 | 65 | 1.550 |
| 2 |  | 2~6 | 58 | 0.765 | 44.370 | 65 | 1.550 |
| 3 |  | 2 | 15 | 1.530 | 22.950 | 65 | 1.550 |
| 4 |  | 2 | 1 | 4.523 | 4.523 | 65 | 1.550 |
| 5 |  | 2 | 1 | 2.801 | 2.801 | 65 | 1.550 |
| 6 |  | 2 | 1 | 1.651 | 1.651 | 65 | 1.550 |
| 7 |  | 2 | 1 | 3.095 | 3.095 | 65 | 1.550 |
| 8 |  | 2 | 1 | 5.393 | 5.393 | 65 | 1.550 |
| 9 |  | 2 | 1 | 4.221 | 4.221 | 65 | 1.550 |
| 10 |  | 2 | 1 | 2.163 | 2.163 | 65 | 1.550 |
| 11 |  | 2 | 1 | 2.348 | 2.348 | 65 | 1.550 |
| 12 |  | 2 | 1 | 2.692 | 2.692 | 65 | 1.550 |
| 13 |  | 2 | 1 | 4.280 | 4.280 | 65 | 1.550 |
| 14 |  | 2 | 1 | 5.015 | 5.015 | 65 | 1.550 |
| 15 |  | 2 | 1 | 2.499 | 2.499 | 65 | 1.550 |
| 16 |  | 2 | 1 | 2.734 | 2.734 | 65 | 1.550 |
| 17 |  | 2 | 1 | 4.851 | 4.851 | 65 | 1.550 |
| 18 |  | 2 | 1 | 4.494 | 4.494 | 65 | 1.550 |
| 19 |  | 2 | 1 | 5.960 | 5.960 | 65 | 1.550 |
| 20 |  | 2 | 1 | 6.707 | 6.707 | 65 | 1.550 |
| 21 |  | 2 | 1 | 8.963 | 8.963 | 65 | 1.550 |
| 22 |  | 2 | 1 | 2.940 | 2.940 | 65 | 1.550 |
| 23 |  | 3 | 1 | 4.651 | 4.651 | 65 | 1.550 |
| 24 |  | 3~6 | 43 | 1.190 | 51.170 | 65 | 1.550 |
| 25 |  | 3 | 1 | 3.804 | 3.804 | 65 | 1.550 |
| 26 |  | 3 | 1 | 1.189 | 1.189 | 65 | 1.550 |
| 27 |  | 3 | 1 | 4.267 | 4.267 | 65 | 1.550 |
| 28 |  | 3 | 1 | 4.951 | 4.951 | 65 | 1.550 |
| 29 |  | 3 | 1 | 4.271 | 4.271 | 65 | 1.550 |
| 30 |  | 3 | 1 | 0.901 | 0.901 | 65 | 1.550 |
| 31 |  | 3 | 1 | 2.242 | 2.242 | 65 | 1.550 |
| 32 |  | 3 | 1 | 5.483 | 5.483 | 65 | 1.550 |
| 33 |  | 3~4 | 2 | 3.960 | 7.919 | 65 | 1.550 |
| 34 |  | 3 | 1 | 2.839 | 2.839 | 65 | 1.550 |
| 35 |  | 3 | 1 | 1.056 | 1.056 | 65 | 1.550 |
| 36 |  | 3 | 1 | 6.840 | 6.840 | 65 | 1.550 |
| 37 |  | 3 | 1 | 2.983 | 2.983 | 65 | 1.550 |
| 38 |  | 3 | 1 | 3.055 | 3.055 | 65 | 1.550 |
| 39 |  | 3 | 1 | 2.804 | 2.804 | 65 | 1.550 |
| 40 |  | 3 | 1 | 2.272 | 2.272 | 65 | 1.550 |
| 41 |  | 3 | 1 | 5.362 | 5.362 | 65 | 1.550 |
| 42 |  | 3 | 1 | 7.129 | 7.129 | 65 | 1.550 |
| 43 |  | 3 | 1 | 6.977 | 6.977 | 65 | 1.550 |
| 44 |  | 3 | 1 | 2.763 | 2.763 | 65 | 1.550 |
| 45 |  | 4 | 1 | 13.087 | 13.087 | 65 | 1.550 |
| 46 |  | 4 | 1 | 5.054 | 5.054 | 65 | 1.550 |
| 47 |  | 4 | 1 | 3.044 | 3.044 | 65 | 1.550 |
| 48 |  | 4 | 1 | 4.777 | 4.777 | 65 | 1.550 |
| 49 |  | 4 | 1 | 3.678 | 3.678 | 65 | 1.550 |
| 50 |  | 4 | 1 | 2.953 | 2.953 | 65 | 1.550 |
| 51 |  | 4 | 1 | 4.328 | 4.328 | 65 | 1.550 |
| 52 |  | 4 | 1 | 3.325 | 3.325 | 65 | 1.550 |
| 53 |  | 4 | 1 | 3.367 | 3.367 | 65 | 1.550 |
| 54 |  | 4 | 1 | 1.607 | 1.607 | 65 | 1.550 |
| 55 |  | 4 | 1 | 2.459 | 2.459 | 65 | 1.550 |
| 56 |  | 4 | 1 | 3.781 | 3.781 | 65 | 1.550 |
| 57 |  | 4 | 1 | 8.611 | 8.611 | 65 | 1.550 |
| 58 |  | 4 | 1 | 4.860 | 4.860 | 65 | 1.550 |
| 59 |  | 4 | 1 | 7.646 | 7.646 | 65 | 1.550 |
| 60 |  | 4 | 1 | 6.874 | 6.874 | 65 | 1.550 |
| 61 |  | 4 | 1 | 2.850 | 2.850 | 65 | 1.550 |
| 62 |  | 5 | 1 | 2.219 | 2.219 | 65 | 1.550 |
| 63 |  | 5 | 1 | 13.817 | 13.817 | 65 | 1.550 |
| 64 |  | 5 | 1 | 2.930 | 2.930 | 65 | 1.550 |
| 65 |  | 5 | 1 | 2.998 | 2.998 | 65 | 1.550 |
| 66 |  | 5 | 1 | 1.045 | 1.045 | 65 | 1.550 |
| 67 |  | 5 | 1 | 3.754 | 3.754 | 65 | 1.550 |
| 68 |  | 5 | 1 | 3.922 | 3.922 | 65 | 1.550 |
| 69 |  | 5 | 1 | 4.796 | 4.796 | 65 | 1.550 |
| 70 |  | 5 | 1 | 2.063 | 2.063 | 65 | 1.550 |
| 71 |  | 5 | 1 | 4.366 | 4.366 | 65 | 1.550 |
| 72 |  | 5 | 1 | 2.626 | 2.626 | 65 | 1.550 |
| 73 |  | 5 | 1 | 14.459 | 14.459 | 65 | 1.550 |
| 74 |  | 5 | 1 | 14.045 | 14.045 | 65 | 1.550 |
| 75 |  | 5 | 1 | 2.238 | 2.238 | 65 | 1.550 |
| 76 |  | 5 | 1 | 1.592 | 1.592 | 65 | 1.550 |
| 77 |  | 5 | 1 | 0.935 | 0.935 | 65 | 1.550 |
| 78 |  | 5 | 1 | 5.464 | 5.464 | 65 | 1.550 |
| 79 |  | 5 | 1 | 2.991 | 2.991 | 65 | 1.550 |
| 80 |  | 6 | 1 | 9.966 | 9.966 | 65 | 1.550 |
| 81 |  | 6 | 2 | 28.500 | 57.000 | 65 | 1.550 |
| 82 |  | 6 | 1 | 27.654 | 27.654 | 65 | 1.550 |
| 83 |  | 6 | 1 | 11.685 | 11.685 | 65 | 1.550 |
| 84 |  | 6 | 1 | 2.907 | 2.907 | 65 | 1.550 |
| 85 |  | 6 | 1 | 2.949 | 2.949 | 65 | 1.550 |
| 86 |  | 6 | 1 | 1.364 | 1.364 | 65 | 1.550 |
| 87 |  | 6 | 1 | 5.200 | 5.200 | 65 | 1.550 |
| 88 | C0615 | 1 | 2 | 0.900 | 1.800 | 18 | 1.550 |
| 89 | C0815 | 2~4,6 | 45 | 1.275 | 57.375 | 18 | 1.550 |
| 90 | C0915 | 5~6 | 14 | 1.275 | 17.850 | 18 | 1.550 |
| 91 | C1219 | 1 | 1 | 2.280 | 2.280 | 18 | 1.550 |
| 立面总面积(㎡) | | | 657.040 | 立面平均传热系数 | | | 1.550 |

3. 东向：

东-默认立面

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造编号 | 传热系数 |
| 1 |  | 2 | 1 | 6.745 | 6.745 | 65 | 1.550 |
| 2 |  | 2~5 | 16 | 0.765 | 12.240 | 65 | 1.550 |
| 3 |  | 2 | 4 | 1.530 | 6.120 | 65 | 1.550 |
| 4 |  | 2 | 1 | 4.738 | 4.738 | 65 | 1.550 |
| 5 |  | 2 | 1 | 8.295 | 8.295 | 65 | 1.550 |
| 6 |  | 2 | 1 | 5.179 | 5.179 | 65 | 1.550 |
| 7 |  | 2 | 1 | 5.494 | 5.494 | 65 | 1.550 |
| 8 |  | 3 | 1 | 5.073 | 5.073 | 65 | 1.550 |
| 9 |  | 3~5 | 12 | 1.190 | 14.280 | 65 | 1.550 |
| 10 |  | 3 | 1 | 4.799 | 4.799 | 65 | 1.550 |
| 11 |  | 3 | 1 | 7.129 | 7.129 | 65 | 1.550 |
| 12 |  | 3 | 1 | 5.833 | 5.833 | 65 | 1.550 |
| 13 |  | 3 | 1 | 4.716 | 4.716 | 65 | 1.550 |
| 14 |  | 4 | 1 | 5.955 | 5.955 | 65 | 1.550 |
| 15 |  | 4 | 1 | 5.544 | 5.544 | 65 | 1.550 |
| 16 |  | 4 | 1 | 6.179 | 6.179 | 65 | 1.550 |
| 17 |  | 4 | 1 | 6.977 | 6.977 | 65 | 1.550 |
| 18 |  | 4 | 1 | 2.896 | 2.896 | 65 | 1.550 |
| 19 |  | 5 | 1 | 2.941 | 2.941 | 65 | 1.550 |
| 20 |  | 5 | 1 | 5.841 | 5.841 | 65 | 1.550 |
| 21 |  | 5 | 1 | 11.286 | 11.286 | 65 | 1.550 |
| 22 |  | 5 | 1 | 4.302 | 4.302 | 65 | 1.550 |
| 23 |  | 5 | 1 | 3.181 | 3.181 | 65 | 1.550 |
| 24 |  | 6 | 1 | 40.470 | 40.470 | 65 | 1.550 |
| 25 | C0815 | 2~4 | 12 | 1.275 | 15.300 | 18 | 1.550 |
| 26 | C0915 | 5 | 4 | 1.275 | 5.100 | 18 | 1.550 |
| 立面总面积(㎡) | | | 206.610 | 立面平均传热系数 | | | 1.550 |

4. 西向：

西-默认立面

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造编号 | 传热系数 |
| 1 |  | 2 | 1 | 13.343 | 13.343 | 65 | 1.550 |
| 2 |  | 2~6 | 7 | 0.765 | 5.355 | 65 | 1.550 |
| 3 |  | 2 | 1 | 1.530 | 1.530 | 65 | 1.550 |
| 4 |  | 2 | 1 | 3.889 | 3.889 | 65 | 1.550 |
| 5 |  | 2 | 1 | 18.887 | 18.887 | 65 | 1.550 |
| 6 |  | 3 | 1 | 13.068 | 13.068 | 65 | 1.550 |
| 7 |  | 3~6 | 6 | 1.190 | 7.140 | 65 | 1.550 |
| 8 |  | 3 | 1 | 2.523 | 2.523 | 65 | 1.550 |
| 9 |  | 3 | 1 | 17.088 | 17.088 | 65 | 1.550 |
| 10 |  | 4 | 1 | 8.155 | 8.155 | 65 | 1.550 |
| 11 |  | 4 | 1 | 1.117 | 1.117 | 65 | 1.550 |
| 12 |  | 4 | 1 | 3.105 | 3.105 | 65 | 1.550 |
| 13 |  | 4 | 1 | 17.073 | 17.073 | 65 | 1.550 |
| 14 |  | 5 | 1 | 17.109 | 17.109 | 65 | 1.550 |
| 15 |  | 5 | 1 | 2.561 | 2.561 | 65 | 1.550 |
| 16 |  | 5 | 1 | 13.011 | 13.011 | 65 | 1.550 |
| 17 |  | 6 | 1 | 17.333 | 17.333 | 65 | 1.550 |
| 18 |  | 6 | 1 | 2.702 | 2.702 | 65 | 1.550 |
| 19 |  | 6 | 1 | 1.163 | 1.163 | 65 | 1.550 |
| 20 |  | 6 | 1 | 8.417 | 8.417 | 65 | 1.550 |
| 21 | C0815 | 2~4,6 | 6 | 1.275 | 7.650 | 18 | 1.550 |
| 22 | C0915 | 5 | 1 | 1.275 | 1.275 | 18 | 1.550 |
| 立面总面积(㎡) | | | 183.494 | 立面平均传热系数 | | | 1.550 |

### 综合太阳得热系数

1. 南向：

南-默认立面

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造编号 | 窗太阳得热系数 | 外遮阳编号 | 外遮阳系数 | 综合太阳得热系数 |
| 1 |  | 2 | 1 | 2.352 | 2.352 | 65 | 0.326 |  | 1.000 | 0.326 |
| 2 |  | 2~5 | 52 | 0.765 | 39.780 | 65 | 0.326 |  | 1.000 | 0.326 |
| 3 |  | 2 | 13 | 1.530 | 19.890 | 65 | 0.326 |  | 1.000 | 0.326 |
| 4 |  | 2 | 1 | 2.386 | 2.386 | 65 | 0.326 |  | 1.000 | 0.326 |
| 5 |  | 2 | 1 | 7.035 | 7.035 | 65 | 0.326 |  | 1.000 | 0.326 |
| 6 |  | 2 | 1 | 2.104 | 2.104 | 65 | 0.326 |  | 1.000 | 0.326 |
| 7 |  | 2 | 1 | 3.343 | 3.343 | 65 | 0.326 |  | 1.000 | 0.326 |
| 8 |  | 2 | 1 | 13.784 | 13.784 | 65 | 0.326 |  | 1.000 | 0.326 |
| 9 |  | 2 | 1 | 5.956 | 5.956 | 65 | 0.326 |  | 1.000 | 0.326 |
| 10 |  | 2 | 1 | 4.620 | 4.620 | 65 | 0.326 |  | 1.000 | 0.326 |
| 11 |  | 2 | 1 | 2.428 | 2.428 | 65 | 0.326 |  | 1.000 | 0.326 |
| 12 |  | 2 | 1 | 5.389 | 5.389 | 65 | 0.326 |  | 1.000 | 0.326 |
| 13 |  | 2 | 1 | 2.999 | 2.999 | 65 | 0.326 |  | 1.000 | 0.326 |
| 14 |  | 2 | 1 | 3.448 | 3.448 | 65 | 0.326 |  | 1.000 | 0.326 |
| 15 |  | 2 | 1 | 2.957 | 2.957 | 65 | 0.326 |  | 1.000 | 0.326 |
| 16 |  | 2 | 1 | 2.142 | 2.142 | 65 | 0.326 |  | 1.000 | 0.326 |
| 17 |  | 2 | 1 | 3.902 | 3.902 | 65 | 0.326 |  | 1.000 | 0.326 |
| 18 |  | 2 | 1 | 21.151 | 21.151 | 65 | 0.326 |  | 1.000 | 0.326 |
| 19 |  | 2 | 1 | 5.989 | 5.989 | 65 | 0.326 |  | 1.000 | 0.326 |
| 20 |  | 2 | 1 | 3.356 | 3.356 | 65 | 0.326 |  | 1.000 | 0.326 |
| 21 |  | 3 | 1 | 1.828 | 1.828 | 65 | 0.326 |  | 1.000 | 0.326 |
| 22 |  | 3~5 | 39 | 1.190 | 46.410 | 65 | 0.326 |  | 1.000 | 0.326 |
| 23 |  | 3 | 1 | 2.508 | 2.508 | 65 | 0.326 |  | 1.000 | 0.326 |
| 24 |  | 3 | 1 | 3.644 | 3.644 | 65 | 0.326 |  | 1.000 | 0.326 |
| 25 |  | 3 | 1 | 5.035 | 5.035 | 65 | 0.326 |  | 1.000 | 0.326 |
| 26 |  | 3 | 1 | 1.942 | 1.942 | 65 | 0.326 |  | 1.000 | 0.326 |
| 27 |  | 3 | 1 | 2.177 | 2.177 | 65 | 0.326 |  | 1.000 | 0.326 |
| 28 |  | 3 | 1 | 3.933 | 3.933 | 65 | 0.326 |  | 1.000 | 0.326 |
| 29 |  | 3 | 1 | 2.896 | 2.896 | 65 | 0.326 |  | 1.000 | 0.326 |
| 30 |  | 3 | 1 | 4.632 | 4.632 | 65 | 0.326 |  | 1.000 | 0.326 |
| 31 |  | 3 | 1 | 7.600 | 7.600 | 65 | 0.326 |  | 1.000 | 0.326 |
| 32 |  | 3 | 1 | 9.025 | 9.025 | 65 | 0.326 |  | 1.000 | 0.326 |
| 33 |  | 3 | 1 | 2.489 | 2.489 | 65 | 0.326 |  | 1.000 | 0.326 |
| 34 |  | 3 | 1 | 3.477 | 3.477 | 65 | 0.326 |  | 1.000 | 0.326 |
| 35 |  | 3 | 1 | 3.819 | 3.819 | 65 | 0.326 |  | 1.000 | 0.326 |
| 36 |  | 3 | 1 | 3.192 | 3.192 | 65 | 0.326 |  | 1.000 | 0.326 |
| 37 |  | 3 | 1 | 2.603 | 2.603 | 65 | 0.326 |  | 1.000 | 0.326 |
| 38 |  | 3 | 1 | 23.465 | 23.465 | 65 | 0.326 |  | 1.000 | 0.326 |
| 39 |  | 3 | 1 | 3.891 | 3.891 | 65 | 0.326 |  | 1.000 | 0.326 |
| 40 |  | 3 | 1 | 4.564 | 4.564 | 65 | 0.326 |  | 1.000 | 0.326 |
| 41 |  | 4 | 1 | 0.293 | 0.293 | 65 | 0.326 |  | 1.000 | 0.326 |
| 42 |  | 4 | 1 | 3.500 | 3.500 | 65 | 0.326 |  | 1.000 | 0.326 |
| 43 |  | 4 | 1 | 5.423 | 5.423 | 65 | 0.326 |  | 1.000 | 0.326 |
| 44 |  | 4 | 2 | 3.135 | 6.270 | 65 | 0.326 |  | 1.000 | 0.326 |
| 45 |  | 4 | 1 | 2.352 | 2.352 | 65 | 0.326 |  | 1.000 | 0.326 |
| 46 |  | 4 | 1 | 0.559 | 0.559 | 65 | 0.326 |  | 1.000 | 0.326 |
| 47 |  | 4 | 1 | 8.447 | 8.447 | 65 | 0.326 |  | 1.000 | 0.326 |
| 48 |  | 4 | 1 | 5.696 | 5.696 | 65 | 0.326 |  | 1.000 | 0.326 |
| 49 |  | 4 | 1 | 4.986 | 4.986 | 65 | 0.326 |  | 1.000 | 0.326 |
| 50 |  | 4 | 1 | 1.258 | 1.258 | 65 | 0.326 |  | 1.000 | 0.326 |
| 51 |  | 4 | 1 | 20.212 | 20.212 | 65 | 0.326 |  | 1.000 | 0.326 |
| 52 |  | 4 | 1 | 2.003 | 2.003 | 65 | 0.326 |  | 1.000 | 0.326 |
| 53 |  | 4 | 1 | 3.895 | 3.895 | 65 | 0.326 |  | 1.000 | 0.326 |
| 54 |  | 4 | 1 | 2.611 | 2.611 | 65 | 0.326 |  | 1.000 | 0.326 |
| 55 |  | 4 | 1 | 4.131 | 4.131 | 65 | 0.326 |  | 1.000 | 0.326 |
| 56 |  | 4 | 1 | 2.941 | 2.941 | 65 | 0.326 |  | 1.000 | 0.326 |
| 57 |  | 4 | 1 | 6.038 | 6.038 | 65 | 0.326 |  | 1.000 | 0.326 |
| 58 |  | 4 | 1 | 2.417 | 2.417 | 65 | 0.326 |  | 1.000 | 0.326 |
| 59 |  | 5 | 1 | 2.166 | 2.166 | 65 | 0.326 |  | 1.000 | 0.326 |
| 60 |  | 5 | 1 | 2.926 | 2.926 | 65 | 0.326 |  | 1.000 | 0.326 |
| 61 |  | 5 | 1 | 3.986 | 3.986 | 65 | 0.326 |  | 1.000 | 0.326 |
| 62 |  | 5 | 1 | 4.621 | 4.621 | 65 | 0.326 |  | 1.000 | 0.326 |
| 63 |  | 5 | 1 | 1.881 | 1.881 | 65 | 0.326 |  | 1.000 | 0.326 |
| 64 |  | 5 | 1 | 8.349 | 8.349 | 65 | 0.326 |  | 1.000 | 0.326 |
| 65 |  | 5 | 1 | 4.412 | 4.412 | 65 | 0.326 |  | 1.000 | 0.326 |
| 66 |  | 5 | 1 | 4.237 | 4.237 | 65 | 0.326 |  | 1.000 | 0.326 |
| 67 |  | 5 | 1 | 1.813 | 1.813 | 65 | 0.326 |  | 1.000 | 0.326 |
| 68 |  | 5 | 1 | 2.421 | 2.421 | 65 | 0.326 |  | 1.000 | 0.326 |
| 69 |  | 5 | 1 | 4.324 | 4.324 | 65 | 0.326 |  | 1.000 | 0.326 |
| 70 |  | 5 | 1 | 3.420 | 3.420 | 65 | 0.326 |  | 1.000 | 0.326 |
| 71 |  | 5 | 1 | 3.754 | 3.754 | 65 | 0.326 |  | 1.000 | 0.326 |
| 72 |  | 5 | 1 | 1.661 | 1.661 | 65 | 0.326 |  | 1.000 | 0.326 |
| 73 |  | 5 | 1 | 2.299 | 2.299 | 65 | 0.326 |  | 1.000 | 0.326 |
| 74 |  | 5 | 1 | 6.156 | 6.156 | 65 | 0.326 |  | 1.000 | 0.326 |
| 75 |  | 5 | 1 | 18.981 | 18.981 | 65 | 0.326 |  | 1.000 | 0.326 |
| 76 |  | 5 | 1 | 3.990 | 3.990 | 65 | 0.326 |  | 1.000 | 0.326 |
| 77 |  | 5 | 1 | 1.634 | 1.634 | 65 | 0.326 |  | 1.000 | 0.326 |
| 78 |  | 6 | 3 | 28.500 | 85.500 | 65 | 0.326 |  | 1.000 | 0.326 |
| 79 |  | 6 | 1 | 11.685 | 11.685 | 65 | 0.326 |  | 1.000 | 0.326 |
| 80 |  | 6 | 1 | 31.230 | 31.230 | 65 | 0.326 |  | 1.000 | 0.326 |
| 81 | C0815 | 2~4 | 38 | 1.275 | 48.450 | 18 | 0.326 |  | 1.000 | 0.326 |
| 82 | C0915 | 5 | 14 | 1.275 | 17.850 | 18 | 0.326 |  | 1.000 | 0.326 |
| 立面总面积(㎡) | | | | | 654.915 | 综合太阳得热系数 | | | 1.000 | 0.326 |

2. 北向：

北-默认立面

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造编号 | 窗太阳得热系数 | 外遮阳编号 | 外遮阳系数 | 综合太阳得热系数 |
| 1 |  | 2 | 1 | 10.870 | 10.870 | 65 | 0.326 |  | 1.000 | 0.326 |
| 2 |  | 2~6 | 58 | 0.765 | 44.370 | 65 | 0.326 |  | 1.000 | 0.326 |
| 3 |  | 2 | 15 | 1.530 | 22.950 | 65 | 0.326 |  | 1.000 | 0.326 |
| 4 |  | 2 | 1 | 4.523 | 4.523 | 65 | 0.326 |  | 1.000 | 0.326 |
| 5 |  | 2 | 1 | 2.801 | 2.801 | 65 | 0.326 |  | 1.000 | 0.326 |
| 6 |  | 2 | 1 | 1.651 | 1.651 | 65 | 0.326 |  | 1.000 | 0.326 |
| 7 |  | 2 | 1 | 3.095 | 3.095 | 65 | 0.326 |  | 1.000 | 0.326 |
| 8 |  | 2 | 1 | 5.393 | 5.393 | 65 | 0.326 |  | 1.000 | 0.326 |
| 9 |  | 2 | 1 | 4.221 | 4.221 | 65 | 0.326 |  | 1.000 | 0.326 |
| 10 |  | 2 | 1 | 2.163 | 2.163 | 65 | 0.326 |  | 1.000 | 0.326 |
| 11 |  | 2 | 1 | 2.348 | 2.348 | 65 | 0.326 |  | 1.000 | 0.326 |
| 12 |  | 2 | 1 | 2.692 | 2.692 | 65 | 0.326 |  | 1.000 | 0.326 |
| 13 |  | 2 | 1 | 4.280 | 4.280 | 65 | 0.326 |  | 1.000 | 0.326 |
| 14 |  | 2 | 1 | 5.015 | 5.015 | 65 | 0.326 |  | 1.000 | 0.326 |
| 15 |  | 2 | 1 | 2.499 | 2.499 | 65 | 0.326 |  | 1.000 | 0.326 |
| 16 |  | 2 | 1 | 2.734 | 2.734 | 65 | 0.326 |  | 1.000 | 0.326 |
| 17 |  | 2 | 1 | 4.851 | 4.851 | 65 | 0.326 |  | 1.000 | 0.326 |
| 18 |  | 2 | 1 | 4.494 | 4.494 | 65 | 0.326 |  | 1.000 | 0.326 |
| 19 |  | 2 | 1 | 5.960 | 5.960 | 65 | 0.326 |  | 1.000 | 0.326 |
| 20 |  | 2 | 1 | 6.707 | 6.707 | 65 | 0.326 |  | 1.000 | 0.326 |
| 21 |  | 2 | 1 | 8.963 | 8.963 | 65 | 0.326 |  | 1.000 | 0.326 |
| 22 |  | 2 | 1 | 2.940 | 2.940 | 65 | 0.326 |  | 1.000 | 0.326 |
| 23 |  | 3 | 1 | 4.651 | 4.651 | 65 | 0.326 |  | 1.000 | 0.326 |
| 24 |  | 3~6 | 43 | 1.190 | 51.170 | 65 | 0.326 |  | 1.000 | 0.326 |
| 25 |  | 3 | 1 | 3.804 | 3.804 | 65 | 0.326 |  | 1.000 | 0.326 |
| 26 |  | 3 | 1 | 1.189 | 1.189 | 65 | 0.326 |  | 1.000 | 0.326 |
| 27 |  | 3 | 1 | 4.267 | 4.267 | 65 | 0.326 |  | 1.000 | 0.326 |
| 28 |  | 3 | 1 | 4.951 | 4.951 | 65 | 0.326 |  | 1.000 | 0.326 |
| 29 |  | 3 | 1 | 4.271 | 4.271 | 65 | 0.326 |  | 1.000 | 0.326 |
| 30 |  | 3 | 1 | 0.901 | 0.901 | 65 | 0.326 |  | 1.000 | 0.326 |
| 31 |  | 3 | 1 | 2.242 | 2.242 | 65 | 0.326 |  | 1.000 | 0.326 |
| 32 |  | 3 | 1 | 5.483 | 5.483 | 65 | 0.326 |  | 1.000 | 0.326 |
| 33 |  | 3~4 | 2 | 3.960 | 7.919 | 65 | 0.326 |  | 1.000 | 0.326 |
| 34 |  | 3 | 1 | 2.839 | 2.839 | 65 | 0.326 |  | 1.000 | 0.326 |
| 35 |  | 3 | 1 | 1.056 | 1.056 | 65 | 0.326 |  | 1.000 | 0.326 |
| 36 |  | 3 | 1 | 6.840 | 6.840 | 65 | 0.326 |  | 1.000 | 0.326 |
| 37 |  | 3 | 1 | 2.983 | 2.983 | 65 | 0.326 |  | 1.000 | 0.326 |
| 38 |  | 3 | 1 | 3.055 | 3.055 | 65 | 0.326 |  | 1.000 | 0.326 |
| 39 |  | 3 | 1 | 2.804 | 2.804 | 65 | 0.326 |  | 1.000 | 0.326 |
| 40 |  | 3 | 1 | 2.272 | 2.272 | 65 | 0.326 |  | 1.000 | 0.326 |
| 41 |  | 3 | 1 | 5.362 | 5.362 | 65 | 0.326 |  | 1.000 | 0.326 |
| 42 |  | 3 | 1 | 7.129 | 7.129 | 65 | 0.326 |  | 1.000 | 0.326 |
| 43 |  | 3 | 1 | 6.977 | 6.977 | 65 | 0.326 |  | 1.000 | 0.326 |
| 44 |  | 3 | 1 | 2.763 | 2.763 | 65 | 0.326 |  | 1.000 | 0.326 |
| 45 |  | 4 | 1 | 13.087 | 13.087 | 65 | 0.326 |  | 1.000 | 0.326 |
| 46 |  | 4 | 1 | 5.054 | 5.054 | 65 | 0.326 |  | 1.000 | 0.326 |
| 47 |  | 4 | 1 | 3.044 | 3.044 | 65 | 0.326 |  | 1.000 | 0.326 |
| 48 |  | 4 | 1 | 4.777 | 4.777 | 65 | 0.326 |  | 1.000 | 0.326 |
| 49 |  | 4 | 1 | 3.678 | 3.678 | 65 | 0.326 |  | 1.000 | 0.326 |
| 50 |  | 4 | 1 | 2.953 | 2.953 | 65 | 0.326 |  | 1.000 | 0.326 |
| 51 |  | 4 | 1 | 4.328 | 4.328 | 65 | 0.326 |  | 1.000 | 0.326 |
| 52 |  | 4 | 1 | 3.325 | 3.325 | 65 | 0.326 |  | 1.000 | 0.326 |
| 53 |  | 4 | 1 | 3.367 | 3.367 | 65 | 0.326 |  | 1.000 | 0.326 |
| 54 |  | 4 | 1 | 1.607 | 1.607 | 65 | 0.326 |  | 1.000 | 0.326 |
| 55 |  | 4 | 1 | 2.459 | 2.459 | 65 | 0.326 |  | 1.000 | 0.326 |
| 56 |  | 4 | 1 | 3.781 | 3.781 | 65 | 0.326 |  | 1.000 | 0.326 |
| 57 |  | 4 | 1 | 8.611 | 8.611 | 65 | 0.326 |  | 1.000 | 0.326 |
| 58 |  | 4 | 1 | 4.860 | 4.860 | 65 | 0.326 |  | 1.000 | 0.326 |
| 59 |  | 4 | 1 | 7.646 | 7.646 | 65 | 0.326 |  | 1.000 | 0.326 |
| 60 |  | 4 | 1 | 6.874 | 6.874 | 65 | 0.326 |  | 1.000 | 0.326 |
| 61 |  | 4 | 1 | 2.850 | 2.850 | 65 | 0.326 |  | 1.000 | 0.326 |
| 62 |  | 5 | 1 | 2.219 | 2.219 | 65 | 0.326 |  | 1.000 | 0.326 |
| 63 |  | 5 | 1 | 13.817 | 13.817 | 65 | 0.326 |  | 1.000 | 0.326 |
| 64 |  | 5 | 1 | 2.930 | 2.930 | 65 | 0.326 |  | 1.000 | 0.326 |
| 65 |  | 5 | 1 | 2.998 | 2.998 | 65 | 0.326 |  | 1.000 | 0.326 |
| 66 |  | 5 | 1 | 1.045 | 1.045 | 65 | 0.326 |  | 1.000 | 0.326 |
| 67 |  | 5 | 1 | 3.754 | 3.754 | 65 | 0.326 |  | 1.000 | 0.326 |
| 68 |  | 5 | 1 | 3.922 | 3.922 | 65 | 0.326 |  | 1.000 | 0.326 |
| 69 |  | 5 | 1 | 4.796 | 4.796 | 65 | 0.326 |  | 1.000 | 0.326 |
| 70 |  | 5 | 1 | 2.063 | 2.063 | 65 | 0.326 |  | 1.000 | 0.326 |
| 71 |  | 5 | 1 | 4.366 | 4.366 | 65 | 0.326 |  | 1.000 | 0.326 |
| 72 |  | 5 | 1 | 2.626 | 2.626 | 65 | 0.326 |  | 1.000 | 0.326 |
| 73 |  | 5 | 1 | 14.459 | 14.459 | 65 | 0.326 |  | 1.000 | 0.326 |
| 74 |  | 5 | 1 | 14.045 | 14.045 | 65 | 0.326 |  | 1.000 | 0.326 |
| 75 |  | 5 | 1 | 2.238 | 2.238 | 65 | 0.326 |  | 1.000 | 0.326 |
| 76 |  | 5 | 1 | 1.592 | 1.592 | 65 | 0.326 |  | 1.000 | 0.326 |
| 77 |  | 5 | 1 | 0.935 | 0.935 | 65 | 0.326 |  | 1.000 | 0.326 |
| 78 |  | 5 | 1 | 5.464 | 5.464 | 65 | 0.326 |  | 1.000 | 0.326 |
| 79 |  | 5 | 1 | 2.991 | 2.991 | 65 | 0.326 |  | 1.000 | 0.326 |
| 80 |  | 6 | 1 | 9.966 | 9.966 | 65 | 0.326 |  | 1.000 | 0.326 |
| 81 |  | 6 | 2 | 28.500 | 57.000 | 65 | 0.326 |  | 1.000 | 0.326 |
| 82 |  | 6 | 1 | 27.654 | 27.654 | 65 | 0.326 |  | 1.000 | 0.326 |
| 83 |  | 6 | 1 | 11.685 | 11.685 | 65 | 0.326 |  | 1.000 | 0.326 |
| 84 |  | 6 | 1 | 2.907 | 2.907 | 65 | 0.326 |  | 1.000 | 0.326 |
| 85 |  | 6 | 1 | 2.949 | 2.949 | 65 | 0.326 |  | 1.000 | 0.326 |
| 86 |  | 6 | 1 | 1.364 | 1.364 | 65 | 0.326 |  | 1.000 | 0.326 |
| 87 |  | 6 | 1 | 5.200 | 5.200 | 65 | 0.326 |  | 1.000 | 0.326 |
| 88 | C0615 | 1 | 2 | 0.900 | 1.800 | 18 | 0.326 |  | 1.000 | 0.326 |
| 89 | C0815 | 2~4,6 | 45 | 1.275 | 57.375 | 18 | 0.326 |  | 1.000 | 0.326 |
| 90 | C0915 | 5~6 | 14 | 1.275 | 17.850 | 18 | 0.326 |  | 1.000 | 0.326 |
| 91 | C1219 | 1 | 1 | 2.280 | 2.280 | 18 | 0.326 |  | 1.000 | 0.326 |
| 立面总面积(㎡) | | | | | 657.040 | 综合太阳得热系数 | | | 1.000 | 0.326 |

3. 东向：

东-默认立面

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造编号 | 窗太阳得热系数 | 外遮阳编号 | 外遮阳系数 | 综合太阳得热系数 |
| 1 |  | 2 | 1 | 6.745 | 6.745 | 65 | 0.326 |  | 1.000 | 0.326 |
| 2 |  | 2~5 | 16 | 0.765 | 12.240 | 65 | 0.326 |  | 1.000 | 0.326 |
| 3 |  | 2 | 4 | 1.530 | 6.120 | 65 | 0.326 |  | 1.000 | 0.326 |
| 4 |  | 2 | 1 | 4.738 | 4.738 | 65 | 0.326 |  | 1.000 | 0.326 |
| 5 |  | 2 | 1 | 8.295 | 8.295 | 65 | 0.326 |  | 1.000 | 0.326 |
| 6 |  | 2 | 1 | 5.179 | 5.179 | 65 | 0.326 |  | 1.000 | 0.326 |
| 7 |  | 2 | 1 | 5.494 | 5.494 | 65 | 0.326 |  | 1.000 | 0.326 |
| 8 |  | 3 | 1 | 5.073 | 5.073 | 65 | 0.326 |  | 1.000 | 0.326 |
| 9 |  | 3~5 | 12 | 1.190 | 14.280 | 65 | 0.326 |  | 1.000 | 0.326 |
| 10 |  | 3 | 1 | 4.799 | 4.799 | 65 | 0.326 |  | 1.000 | 0.326 |
| 11 |  | 3 | 1 | 7.129 | 7.129 | 65 | 0.326 |  | 1.000 | 0.326 |
| 12 |  | 3 | 1 | 5.833 | 5.833 | 65 | 0.326 |  | 1.000 | 0.326 |
| 13 |  | 3 | 1 | 4.716 | 4.716 | 65 | 0.326 |  | 1.000 | 0.326 |
| 14 |  | 4 | 1 | 5.955 | 5.955 | 65 | 0.326 |  | 1.000 | 0.326 |
| 15 |  | 4 | 1 | 5.544 | 5.544 | 65 | 0.326 |  | 1.000 | 0.326 |
| 16 |  | 4 | 1 | 6.179 | 6.179 | 65 | 0.326 |  | 1.000 | 0.326 |
| 17 |  | 4 | 1 | 6.977 | 6.977 | 65 | 0.326 |  | 1.000 | 0.326 |
| 18 |  | 4 | 1 | 2.896 | 2.896 | 65 | 0.326 |  | 1.000 | 0.326 |
| 19 |  | 5 | 1 | 2.941 | 2.941 | 65 | 0.326 |  | 1.000 | 0.326 |
| 20 |  | 5 | 1 | 5.841 | 5.841 | 65 | 0.326 |  | 1.000 | 0.326 |
| 21 |  | 5 | 1 | 11.286 | 11.286 | 65 | 0.326 |  | 1.000 | 0.326 |
| 22 |  | 5 | 1 | 4.302 | 4.302 | 65 | 0.326 |  | 1.000 | 0.326 |
| 23 |  | 5 | 1 | 3.181 | 3.181 | 65 | 0.326 |  | 1.000 | 0.326 |
| 24 |  | 6 | 1 | 40.470 | 40.470 | 65 | 0.326 |  | 1.000 | 0.326 |
| 25 | C0815 | 2~4 | 12 | 1.275 | 15.300 | 18 | 0.326 |  | 1.000 | 0.326 |
| 26 | C0915 | 5 | 4 | 1.275 | 5.100 | 18 | 0.326 |  | 1.000 | 0.326 |
| 立面总面积(㎡) | | | | | 206.610 | 综合太阳得热系数 | | | 1.000 | 0.326 |

4. 西向：

西-默认立面

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造编号 | 窗太阳得热系数 | 外遮阳编号 | 外遮阳系数 | 综合太阳得热系数 |
| 1 |  | 2 | 1 | 13.343 | 13.343 | 65 | 0.326 |  | 1.000 | 0.326 |
| 2 |  | 2~6 | 7 | 0.765 | 5.355 | 65 | 0.326 |  | 1.000 | 0.326 |
| 3 |  | 2 | 1 | 1.530 | 1.530 | 65 | 0.326 |  | 1.000 | 0.326 |
| 4 |  | 2 | 1 | 3.889 | 3.889 | 65 | 0.326 |  | 1.000 | 0.326 |
| 5 |  | 2 | 1 | 18.887 | 18.887 | 65 | 0.326 |  | 1.000 | 0.326 |
| 6 |  | 3 | 1 | 13.068 | 13.068 | 65 | 0.326 |  | 1.000 | 0.326 |
| 7 |  | 3~6 | 6 | 1.190 | 7.140 | 65 | 0.326 |  | 1.000 | 0.326 |
| 8 |  | 3 | 1 | 2.523 | 2.523 | 65 | 0.326 |  | 1.000 | 0.326 |
| 9 |  | 3 | 1 | 17.088 | 17.088 | 65 | 0.326 |  | 1.000 | 0.326 |
| 10 |  | 4 | 1 | 8.155 | 8.155 | 65 | 0.326 |  | 1.000 | 0.326 |
| 11 |  | 4 | 1 | 1.117 | 1.117 | 65 | 0.326 |  | 1.000 | 0.326 |
| 12 |  | 4 | 1 | 3.105 | 3.105 | 65 | 0.326 |  | 1.000 | 0.326 |
| 13 |  | 4 | 1 | 17.073 | 17.073 | 65 | 0.326 |  | 1.000 | 0.326 |
| 14 |  | 5 | 1 | 17.109 | 17.109 | 65 | 0.326 |  | 1.000 | 0.326 |
| 15 |  | 5 | 1 | 2.561 | 2.561 | 65 | 0.326 |  | 1.000 | 0.326 |
| 16 |  | 5 | 1 | 13.011 | 13.011 | 65 | 0.326 |  | 1.000 | 0.326 |
| 17 |  | 6 | 1 | 17.333 | 17.333 | 65 | 0.326 |  | 1.000 | 0.326 |
| 18 |  | 6 | 1 | 2.702 | 2.702 | 65 | 0.326 |  | 1.000 | 0.326 |
| 19 |  | 6 | 1 | 1.163 | 1.163 | 65 | 0.326 |  | 1.000 | 0.326 |
| 20 |  | 6 | 1 | 8.417 | 8.417 | 65 | 0.326 |  | 1.000 | 0.326 |
| 21 | C0815 | 2~4,6 | 6 | 1.275 | 7.650 | 18 | 0.326 |  | 1.000 | 0.326 |
| 22 | C0915 | 5 | 1 | 1.275 | 1.275 | 18 | 0.326 |  | 1.000 | 0.326 |
| 立面总面积(㎡) | | | | | 183.494 | 综合太阳得热系数 | | | 1.000 | 0.326 |

### 总体热工性能

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 面积 | 传热系数 | 综合太阳得热系数 | 窗墙比 | 标准要求 | 结论 |
| 南向 | 南-默认立面 | 654.91 | 1.55 | 0.33 | 0.68 | K≤1.90, SHGC≤0.35 | 满足 |
| 北向 | 北-默认立面 | 657.04 | 1.55 | 0.33 | 0.69 | K≤1.90, SHGC≤0.60 | 满足 |
| 东向 | 东-默认立面 | 206.61 | 1.55 | 0.33 | 0.68 | K≤1.90, SHGC≤0.35 | 满足 |
| 西向 | 西-默认立面 | 183.49 | 1.55 | 0.33 | 0.60 | K≤2.00, SHGC≤0.40 | 满足 |
| 综合平均 |  | 1702.06 | 1.55 | 0.33 | 0.67 |  |  |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | | |
| 标准要求 | 外窗传热系数和太阳得热系数满足表3.3.1-3的要求 | | | | | | |
| 结论 | 满足 | | | | | | |

注：本表所统计的外窗包含凸窗。

## 周边地面构造

### 周边地面构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 碎石、卵石混凝土(ρ=2300) | 30 | 1.510 | 15.360 | 1.00 | 0.020 | 0.305 |
| 挤塑聚苯板(ρ=25-32) | 20 | 0.030 | 0.320 | 1.00 | 0.667 | 0.213 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 各层之和∑ | 190 | － | － | － | 0.777 | 1.949 |
| 保温材料层R | 0.67 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | R≥0.60 | | | | | |
| 结论 | 满足 | | | | | |

备注：用灰色显示的材料是非保温材料。

## 采暖地下室外墙构造

### 地下墙构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 | 厚度δ | 导热系数λ | 蓄热系数S | 修正系数 | 热阻R | 热惰性指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 挤塑聚苯板(ρ=25-32) | 25 | 0.030 | 0.320 | 1.00 | 0.833 | 0.267 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 200 | 1.740 | 17.200 | 1.00 | 0.115 | 1.977 |
| 石灰水泥砂浆（混合砂浆） | 20 | 0.870 | 10.750 | 1.00 | 0.023 | 0.247 |
| 各层之和∑ | 265 | － | － | － | 0.993 | 2.735 |
| 保温材料层R | 0.83 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | R≥0.60 | | | | | |
| 结论 | 满足 | | | | | |

备注：用灰色显示的材料是非保温材料。

## 变形缝

本工程无此项内容

## 有效通风换气面积

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 楼层 | 房间编号 | 房间面积（㎡） | | 立面面积（㎡） | 门窗编号 | 门窗面积（㎡） | 有效通风面积比 | 门窗类型 | 有效通风面积/外窗面积 | 有效通风面积/立面面积 | 结论 |
| 1 | C001 | 239.87 | | 173.20 | C1219 | 2.28 | 0.30 | 外窗 | 0.30 | 0.01 | 不适宜 |
| C0615 | 0.90 | 0.30 | 外窗 |
| C0615 | 0.90 | 0.30 | 外窗 |
| 通风换气装置 | | | 有 | | | | | | | | |
| 标准依据 | | | 《公共建筑节能设计标准》(GB50189-2015)第3.2.8条 | | | | | | | | |
| 标准要求 | | | 甲类建筑外窗有效通风换气面积不宜小于所在房间立面面积的10% | | | | | | | | |
| 结论 | | | 满足 | | | | | | | | |

注：达标时只列出一项，不达标时列出全部不达标项

## 非中空窗面积比

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 非中空玻璃面积(㎡) | 透光面积(㎡) | 非中空面积比 | 限值 | 结论 |
| 南向 | 南-默认立面 | 0.00 | 654.91 | 0.00 | 0.15 | 满足 |
| 北向 | 北-默认立面 | 0.00 | 657.04 | 0.00 | 0.15 | 满足 |
| 东向 | 东-默认立面 | 0.00 | 206.61 | 0.00 | 0.15 | 满足 |
| 西向 | 西-默认立面 | 0.00 | 183.49 | 0.00 | 0.15 | 满足 |
| 标准依据 | | 《公共建筑节能设计标准》(GB50189-2015)第3.3.7条 | | | | |
| 标准要求 | | 非中空玻璃的面积不应超过同一立面透光面积的15% | | | | |
| 结论 | | 满足 | | | | |

## 外窗气密性

|  |  |  |
| --- | --- | --- |
| 层数 | 1～9层 | 10层以上 |
| 最不利气密性等级 | － | － |
| 外窗气密性措施 |  |  |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.5条，分级与检测方法《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008） | 《公共建筑节能设计标准》(GB50189-2015)第3.3.5条，分级与检测方法《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008） |
| 标准要求 | 10层以下外窗气密性不应低于《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008）的6级 | 10层及以上外窗气密性不应低于《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008）的7级 |
| 结论 | － | － |

## 外门气密性

|  |  |
| --- | --- |
| 最不利气密性等级 | － |
| 外门气密性措施 |  |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.5条，分级与检测方法《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008） |
| 标准要求 | 外门气密性不应低于《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008）的4级 |
| 结论 | － |

## 幕墙气密性

|  |  |
| --- | --- |
| 最不利气密性等级 | － |
| 幕墙气密性措施 |  |
| 通风换气装置 | 有 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.6条，《建筑幕墙》（GB/T 21086-2007） |
| 标准要求 | 幕墙气密性不应低于《建筑幕墙》（GB/T 21086-2007）的3级，即《建筑幕墙物理性能分级》(GB/T15225-94)的3级 |
| 结论 | － |

## 规定性指标检查结论

|  |  |  |  |
| --- | --- | --- | --- |
| 序号 | 检查项 | 结论 | 可否性能权衡 |
| 1 | 体形系数 | 满足 |  |
| 2 | 窗墙比 | 适宜 |  |
| 3 | 可见光透射比 | 满足 |  |
| 4 | 天窗类型 | 无屋顶透光部分 |  |
| 5 | 屋顶构造 | 满足 |  |
| 6 | 外墙构造 | 满足 |  |
| 7 | 挑空楼板构造 | 满足 |  |
| 8 | 采暖与非采暖隔墙 | 满足 |  |
| 9 | 外窗热工 | 满足 |  |
| 10 | 周边地面构造 | 满足 |  |
| 11 | 采暖地下室外墙构造 | 满足 |  |
| 12 | 有效通风换气面积 | 满足 |  |
| 13 | 非中空窗面积比 | 满足 |  |
| 14 | 外窗气密性 | 满足 |  |
| 15 | 外门气密性 | 满足 |  |
| 16 | 幕墙气密性 | 满足 |  |
| 结论 | | 满足 |  |

□说明：本工程所有规定性设计指标**满足**《公共建筑节能设计标准》(GB50189-2015)的要求。