**建筑节能设计报告书**

公共建筑－规定性指标

甲类  分散供暖空调

|  |  |
| --- | --- |
| 工程名称 | 新建项目 |
| 工程地点 | 广西-贺州 |
| 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 | 2022年12月8日 |



|  |  |
| --- | --- |
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# 建筑概况

|  |  |
| --- | --- |
| 工程名称 | 新建项目 |
| 工程地点 | 广西-贺州 |
| 地理位置 | 北纬：24.70° | 东经：108.10° |
| 气候分区 | 夏热冬暖北区 |
| 建筑面积 | 地上3644㎡ 地下0㎡ |
| 建筑层数 | 地上3 地下0 |
| 建筑高度 | 17.4m |
| 建筑（节能计算）体积 | 17493.54 |
| 建筑（节能计算）外表面积 | 5142.10 |
| 北向角度 | 60 |
| 结构类型 | 框架结构 |
| 外墙太阳辐射吸收系数 | 0.50 |
| 屋顶太阳辐射吸收系数 | 0.80 |

# 设计依据

1. 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019

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



立面图例



1层平面



2层平面



3层平面



4层平面

# 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) |
| “WiCi外喜”SBS耐根穿刺型防水保温一体化板（硬泡聚氨酯） | 0.024 | 0.360 | 35.0 | 1380.0 | 0.0000 | 燃烧性能B1级或B2级、修正系数=1.1 |
| 保温砂浆 | 0.290 | 4.440 | 800.0 | 1050.0 | 0.0000 |  |
| 加气混凝土、泡沫混凝土(ρ=700)（1） | 0.220 | 3.590 | 700.0 | 1050.0 | 0.0998 |  |
| 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 |
| 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 |
| 水泥砂浆找平层 | 0.930 | 11.370 | 1800.0 | 1062.0 | 0.0040 |  |
| 混凝土多孔砖(190六孔砖） | 0.750 | 7.490 | 1450.0 | 709.4 | 0.0000 |  |
| 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 |
| 粉煤灰陶粒混凝土(ρ=1700) | 0.950 | 11.400 | 1700.0 | 1050.0 | 0.0188 |  |
| 轻质粘土(轻质混合种植土) | 0.470 | 6.360 | 1200.0 | 1010.0 | 0.0000 |  |
| 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 |
| 钢筋网细石混凝土 | 1.740 | 17.198 | 2500.0 | 935.0 | 0.0040 |  |

# 围护结构作法简要说明

**1. 屋顶构造：**种植屋面：（由上到下）

 轻质粘土(轻质混合种植土) 150mm＋钢筋网细石混凝土 40mm＋“WiCi外喜”SBS耐根穿刺型防水保温一体化板（硬泡聚氨酯） 20mm＋水泥砂浆找平层 20mm＋加气混凝土、泡沫混凝土(ρ=700)（1） 30mm＋挤塑聚苯乙烯泡沫塑料（带表皮） 50mm＋钢筋混凝土 120mm＋石灰砂浆 20mm

**2. 外墙构造：**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） 20mm＋保温砂浆 20mm＋粉煤灰陶粒混凝土(ρ=1700) 160mm＋石灰砂浆 20mm

**3. 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 120mm＋保温砂浆 20mm＋挤塑聚苯乙烯泡沫塑料（带表皮） 20mm＋水泥砂浆 20mm

**4. 幕墙：**断热铝合金窗+Low-E中空玻璃（下限）：

 传热系数2.500W/m^2.K，太阳得热系数0.348

**5. 外窗：**断热铝合金窗+Low-E中空玻璃（下限）：

 传热系数2.500W/m^2.K，太阳得热系数0.348

# 体形系数

|  |  |
| --- | --- |
| 外表面积 | 5142.10 |
| 建筑体积 | 17493.54 |
| 体形系数 | 0.29 |

# 窗墙比

## 窗墙比

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗面积(㎡) | 墙面积(㎡) | 窗墙比 | 限值 | 结论 |
| 北向 | 北-默认立面 | 556.03 | 952.10 | 0.58 | 0.70 | 适宜 |
| 东向 | 东-默认立面 | 899.84 | 1512.27 | 0.60 | 0.70 | 适宜 |
| 西向 | 西-默认立面 | 319.48 | 558.25 | 0.57 | 0.70 | 适宜 |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.2.1条 |
| 标准要求 | 夏热冬暖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（㎡） |
| 北向 | 北-默认立面556.03 |  | 7.84×4.80 | 1 | 1 | 37.64 | 37.64 |
|  | 7.96×4.80 | 1 | 1 | 38.20 | 38.20 |
|  | 1.61×4.80 | 2 | 1 | 7.72 | 7.72 |
|  | 2.40×0.90 | 2 | 7 | 2.16 | 15.12 |
|  | 2.40×1.50 | 2 | 7 | 3.60 | 25.20 |
|  | 0.05×4.80 | 3 | 2 | 0.24 | 0.48 |
|  | 2.40×0.90 | 3 | 4 | 2.16 | 8.64 |
|  | 3.65×4.80 | 3 | 1 | 17.52 | 17.52 |
|  | 1.91×4.80 | 3 | 1 | 9.19 | 9.19 |
|  | 2.40×0.90 | 3 | 5 | 2.16 | 10.80 |
|  | 2.40×1.50 | 3 | 5 | 3.60 | 18.00 |
|  | 3.83×4.80 | 3 | 4 | 18.38 | 73.52 |
|  | 1.92×4.80 | 3 | 1 | 9.19 | 9.19 |
|  | 5.80×4.80 | 3 | 1 | 27.86 | 27.86 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
|  | 0.05×4.80 | 3 | 1 | 0.22 | 0.22 |
|  | 2.49×4.80 | 3 | 1 | 11.94 | 11.94 |
|  | 2.40×0.90 | 3 | 2 | 2.16 | 4.32 |
|  | 2.40×1.50 | 3 | 2 | 3.60 | 7.20 |
|  | 4.98×4.80 | 3 | 1 | 23.88 | 23.88 |
|  | 2.49×4.80 | 3 | 1 | 11.94 | 11.94 |
| C1515 | 1.50×1.50 | 1~2 | 4 | 2.25 | 9.00 |
| C1515 | 1.50×1.50 | 1~2 | 9 | 2.25 | 20.25 |
| C1515 | 1.50×1.50 | 1~2 | 2 | 2.25 | 4.50 |
| C1515 | 1.50×1.50 | 2 | 1 | 2.25 | 2.25 |
| C1518 | 1.50×1.80 | 1~2 | 2 | 2.70 | 5.40 |
| C1518 | 1.50×1.80 | 1~2 | 2 | 2.70 | 5.40 |
| C1518 | 1.50×1.80 | 3 | 1 | 2.70 | 2.70 |
| C1518 | 1.50×1.80 | 3 | 1 | 2.70 | 2.70 |
| C1527 | 1.50×2.70 | 1 | 1 | 4.05 | 4.05 |
| C1527 | 1.50×2.70 | 1 | 1 | 4.05 | 4.05 |
| C1527 | 1.50×2.70 | 2 | 1 | 4.05 | 4.05 |
| C1527 | 1.50×2.70 | 2 | 1 | 4.05 | 4.05 |
| C1527 | 1.50×2.70 | 3 | 1 | 4.05 | 4.05 |
| C1527 | 1.50×2.70 | 3 | 1 | 4.05 | 4.05 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 3 | 6 | 5.76 | 34.56 |
| C2424 | 2.40×2.40 | 3 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 3 | 1 | 5.76 | 5.76 |
| C2430 | 2.40×3.00 | 1 | 1 | 7.20 | 7.20 |
| C2430 | 2.40×3.00 | 2 | 1 | 7.20 | 7.20 |
| C2430 | 2.40×3.00 | 3 | 2 | 7.20 | 14.40 |
| 东向 | 东-默认立面899.84 |  | 2.70×4.80 | 1 | 1 | 12.96 | 12.96 |
|  | 2.40×0.90 | 1 | 2 | 2.16 | 4.32 |
|  | 2.40×1.50 | 1 | 2 | 3.60 | 7.20 |
|  | 2.80×4.80 | 1 | 1 | 13.44 | 13.44 |
|  | 2.40×0.90 | 1 | 8 | 2.16 | 17.28 |
|  | 2.40×1.50 | 1 | 8 | 3.60 | 28.80 |
|  | 3.10×4.80 | 1 | 2 | 14.88 | 29.76 |
|  | 3.19×4.80 | 1 | 1 | 15.30 | 15.30 |
|  | 3.05×4.80 | 1 | 1 | 14.66 | 14.66 |
|  | 5.50×4.80 | 1 | 1 | 26.40 | 26.40 |
|  | 0.05×4.80 | 2 | 2 | 0.24 | 0.48 |
|  | 2.40×0.90 | 2 | 2 | 2.16 | 4.32 |
|  | 2.40×1.50 | 2 | 2 | 3.60 | 7.20 |
|  | 3.40×4.80 | 2 | 1 | 16.32 | 16.32 |
|  | 0.05×4.80 | 2 | 1 | 0.24 | 0.24 |
|  | 2.40×0.90 | 2 | 2 | 2.16 | 4.32 |
|  | 2.40×1.50 | 2 | 2 | 3.60 | 7.20 |
|  | 5.40×4.80 | 2 | 1 | 25.90 | 25.90 |
|  | 0.01×4.80 | 2 | 1 | 0.06 | 0.06 |
|  | 0.05×4.80 | 2 | 4 | 0.24 | 0.96 |
|  | 2.40×0.90 | 2 | 4 | 2.16 | 8.64 |
|  | 2.40×1.50 | 2 | 4 | 3.60 | 14.40 |
|  | 3.53×4.80 | 2 | 1 | 16.94 | 16.94 |
|  | 3.50×4.80 | 2 | 1 | 16.80 | 16.80 |
|  | 0.01×4.80 | 2 | 1 | 0.06 | 0.06 |
|  | 2.40×0.90 | 2 | 2 | 2.16 | 4.32 |
|  | 2.40×1.50 | 2 | 2 | 3.60 | 7.20 |
|  | 3.65×4.80 | 2 | 1 | 17.52 | 17.52 |
|  | 0.05×4.80 | 2 | 1 | 0.24 | 0.24 |
|  | 0.01×4.80 | 2 | 2 | 0.06 | 0.12 |
|  | 2.40×0.90 | 2 | 2 | 2.16 | 4.32 |
|  | 2.40×1.50 | 2 | 2 | 3.60 | 7.20 |
|  | 5.28×4.80 | 2 | 1 | 25.35 | 25.35 |
|  | 0.77×4.80 | 3 | 2 | 3.69 | 7.38 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
|  | 2.59×4.80 | 3 | 1 | 12.44 | 12.44 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
|  | 2.59×4.80 | 3 | 1 | 12.44 | 12.44 |
|  | 0.96×4.80 | 3 | 2 | 4.63 | 9.25 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
|  | 0.73×4.80 | 3 | 1 | 3.51 | 3.51 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
|  | 0.73×4.80 | 3 | 1 | 3.51 | 3.51 |
|  | 0.76×4.80 | 3 | 1 | 3.63 | 3.63 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
|  | 0.76×4.80 | 3 | 1 | 3.64 | 3.64 |
|  | 1.37×4.80 | 3 | 1 | 6.56 | 6.56 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
|  | 1.37×4.80 | 3 | 1 | 6.56 | 6.56 |
|  | 2.17×4.80 | 3 | 1 | 10.40 | 10.40 |
|  | 0.92×4.80 | 3 | 2 | 4.39 | 8.78 |
|  | 2.40×0.90 | 3 | 2 | 2.16 | 4.32 |
|  | 2.40×1.50 | 3 | 2 | 3.60 | 7.20 |
|  | 1.83×4.80 | 3 | 1 | 8.78 | 8.78 |
|  | 1.61×4.80 | 3 | 1 | 7.71 | 7.71 |
|  | 2.40×0.90 | 3 | 6 | 2.16 | 12.96 |
|  | 2.40×1.50 | 3 | 6 | 3.60 | 21.60 |
|  | 3.22×4.80 | 3 | 1 | 15.43 | 15.43 |
|  | 14.42×4.80 | 3 | 1 | 69.20 | 69.20 |
|  | 0.05×4.80 | 3 | 1 | 0.24 | 0.24 |
|  | 2.38×4.80 | 3 | 1 | 11.44 | 11.44 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
|  | 2.38×4.80 | 3 | 1 | 11.44 | 11.44 |
| C0909 | 0.90×0.90 | 1 | 1 | 0.81 | 0.81 |
| C0909 | 0.90×0.90 | 1 | 1 | 0.81 | 0.81 |
| C0909 | 0.90×0.90 | 1 | 1 | 0.81 | 0.81 |
| C0909 | 0.90×0.90 | 1 | 1 | 0.81 | 0.81 |
| C0909 | 0.90×0.90 | 2 | 1 | 0.81 | 0.81 |
| C0909 | 0.90×0.90 | 2 | 2 | 0.81 | 1.62 |
| C0909 | 0.90×0.90 | 2 | 1 | 0.81 | 0.81 |
| C0909 | 0.90×0.90 | 3 | 3 | 0.81 | 2.43 |
| C0909 | 0.90×0.90 | 3 | 1 | 0.81 | 0.81 |
| C1515 | 1.50×1.50 | 1 | 3 | 2.25 | 6.75 |
| C1515 | 1.50×1.50 | 1 | 2 | 2.25 | 4.50 |
| C1515 | 1.50×1.50 | 2 | 1 | 2.25 | 2.25 |
| C1515 | 1.50×1.50 | 3 | 1 | 2.25 | 2.25 |
| C1515 | 1.50×1.50 | 3 | 1 | 2.25 | 2.25 |
| C2424 | 2.40×2.40 | 1 | 10 | 5.76 | 57.60 |
| C2424 | 2.40×2.40 | 2 | 7 | 5.76 | 40.32 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 2 | 2 | 5.76 | 11.52 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 2 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 3 | 10 | 5.76 | 57.60 |
| C2424 | 2.40×2.40 | 3 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 3 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 3 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 3 | 1 | 5.76 | 5.76 |
| C2424 | 2.40×2.40 | 3 | 1 | 5.76 | 5.76 |
| 西向 | 西-默认立面319.48 |  | 1.50×1.50 | 1 | 5 | 2.25 | 11.25 |
|  | 0.07×4.80 | 1 | 1 | 0.33 | 0.33 |
|  | 0.26×4.80 | 1 | 1 | 1.23 | 1.23 |
|  | 0.05×4.80 | 1 | 1 | 0.23 | 0.23 |
|  | 0.03×4.80 | 1 | 1 | 0.13 | 0.13 |
|  | 4.33×4.80 | 1 | 1 | 20.76 | 20.76 |
|  | 3.00×2.70 | 1 | 1 | 8.10 | 8.10 |
|  | 0.58×4.80 | 1 | 1 | 2.76 | 2.76 |
|  | 0.01×4.80 | 2 | 1 | 0.04 | 0.04 |
|  | 1.20×0.90 | 2 | 2 | 1.08 | 2.16 |
|  | 0.26×4.80 | 2 | 1 | 1.24 | 1.24 |
|  | 1.50×1.50 | 2 | 5 | 2.25 | 11.25 |
|  | 0.03×4.80 | 2 | 1 | 0.13 | 0.13 |
|  | 0.05×4.80 | 2 | 1 | 0.23 | 0.23 |
|  | 0.26×4.80 | 2 | 1 | 1.23 | 1.23 |
|  | 0.07×4.80 | 2 | 1 | 0.33 | 0.33 |
|  | 7.90×4.80 | 2 | 1 | 37.92 | 37.92 |
|  | 0.05×4.80 | 3 | 2 | 0.24 | 0.48 |
|  | 2.40×0.90 | 3 | 4 | 2.16 | 8.64 |
|  | 2.40×1.50 | 3 | 4 | 3.60 | 14.40 |
|  | 3.49×4.80 | 3 | 1 | 16.73 | 16.73 |
|  | 0.10×4.80 | 3 | 1 | 0.48 | 0.48 |
|  | 4.89×4.80 | 3 | 1 | 23.48 | 23.48 |
|  | 7.45×4.80 | 3 | 1 | 35.76 | 35.76 |
|  | 2.45×4.80 | 3 | 2 | 11.76 | 23.52 |
|  | 2.40×0.90 | 3 | 1 | 2.16 | 2.16 |
|  | 2.40×1.50 | 3 | 1 | 3.60 | 3.60 |
| C1230 | 1.20×3.00 | 2 | 1 | 3.60 | 3.60 |
| C1515 | 1.50×1.50 | 1 | 3 | 2.25 | 6.75 |
| C1515 | 1.50×1.50 | 2 | 1 | 2.25 | 2.25 |
| C1530 | 1.50×3.30 | 1 | 1 | 4.95 | 4.95 |
| C1530 | 1.50×3.30 | 2 | 1 | 4.95 | 4.95 |
| C1533 | 1.50×3.30 | 1 | 1 | 4.95 | 4.95 |
| C1533 | 1.50×3.30 | 1 | 1 | 4.95 | 4.95 |
| C1533 | 1.50×3.30 | 1 | 1 | 4.95 | 4.95 |
| C1533 | 1.50×3.30 | 1 | 1 | 4.95 | 4.95 |
| C1533 | 1.50×3.30 | 2 | 1 | 4.95 | 4.95 |
| C1533 | 1.50×3.30 | 2 | 1 | 4.95 | 4.95 |
| C1533 | 1.50×3.30 | 2 | 1 | 4.95 | 4.95 |
| C1533 | 1.50×3.30 | 2 | 1 | 4.95 | 4.95 |
| C2424 | 2.40×2.40 | 3 | 4 | 5.76 | 23.04 |
| C2424 | 2.40×2.40 | 3 | 1 | 5.76 | 5.76 |

# 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 |
| 北向 | 北-默认立面 | 0.58 | C2424 | 0.80 | 0.40 |
| 东向 | 东-默认立面 | 0.60 | C2424 | 0.80 | 0.40 |
| 西向 | 西-默认立面 | 0.57 | C2424 | 0.80 | 0.40 |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.2.3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0.60;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0.40; |
| 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

## 种植屋面

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 轻质粘土(轻质混合种植土) | 150 | 0.470 | 6.360 | 1.00 | 0.319 | 2.030 |
| 钢筋网细石混凝土 | 40 | 1.740 | 17.198 | 1.00 | 0.023 | 0.395 |
| “WiCi外喜”SBS耐根穿刺型防水保温一体化板（硬泡聚氨酯） | 20 | 0.024 | 0.360 | 1.10 | 0.758 | 0.300 |
| 水泥砂浆找平层 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 加气混凝土、泡沫混凝土(ρ=700)（1） | 30 | 0.220 | 3.590 | 1.00 | 0.136 | 0.490 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 50 | 0.030 | 0.340 | 1.00 | 1.667 | 0.567 |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 450 | － | － | － | 3.018 | 5.461 |
| 外表面太阳辐射吸收系数 | 0.80[默认] |
| 传热系数K=1/(0.16+∑R) | 0.32 |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.3.1条 |
| 标准要求 | K应满足表3.3.1-2的规定(K≤0.80) |
| 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） | 20 | 0.030 | 0.340 | 1.20 | 0.556 | 0.227 |
| 保温砂浆 | 20 | 0.290 | 4.440 | 1.00 | 0.069 | 0.306 |
| 粉煤灰陶粒混凝土(ρ=1700) | 160 | 0.950 | 11.400 | 1.00 | 0.168 | 1.920 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 240 | － | － | － | 0.839 | 2.946 |
| 外表面太阳辐射吸收系数 | 0.50[默认] |
| 传热系数K=1/(0.16+∑R) | 1.00 |

### 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） | 20 | 0.030 | 0.340 | 1.20 | 0.556 | 0.227 |
| 保温砂浆 | 20 | 0.290 | 4.440 | 1.00 | 0.069 | 0.306 |
| 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∑ | 240 | － | － | － | 0.763 | 2.608 |
| 外表面太阳辐射吸收系数 | 0.50[默认] |
| 传热系数K=1/(0.16+∑R) | 1.08 |

## 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

2.　北向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 396.07 | 1.000 | 1.00 | 2.95 | 0.50 |
| 凸窗外窗比（%） | 0% |
| 考虑线性热桥后K | 1.00 × 1.00 = 1.00 |

3.　东向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 595.88 | 1.000 | 1.00 | 2.95 | 0.50 |
| 凸窗外窗比（%） | 0% |
| 考虑线性热桥后K | 1.00 × 1.00 = 1.00 |

4.　西向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 228.87 | 1.000 | 1.00 | 2.95 | 0.50 |
| 凸窗外窗比（%） | 0% |
| 考虑线性热桥后K | 1.00 × 1.00 = 1.00 |

5.　总体

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 1220.82 | 1.000 | 1.00 | 2.95 | 0.50 |
| 凸窗外窗比（%） | 0% |
| 考虑线性热桥后K | 1.00 × 1.00 = 1.00 |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.3.1条 |
| 标准要求 | K应满足表3.3.1-2的规定(K≤1.50) |
| 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 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 保温砂浆 | 20 | 0.290 | 4.440 | 1.00 | 0.069 | 0.306 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 20 | 0.030 | 0.340 | 1.20 | 0.556 | 0.227 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 各层之和∑ | 200 | － | － | － | 0.736 | 2.208 |
| 传热系数K=1/(0.16+∑R) | 1.12 |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.3.1条 |
| 标准要求 | K≤1.50 |
| 结论 | 满足 |

# 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 | 断热铝合金窗+Low-E中空玻璃（下限） | 65 | 2.50 | 0.35 | 1.000 | 广西居住规范66页 |
| 2 | 断热铝合金窗+Low-E中空玻璃（下限） | 18 | 2.50 | 0.35 | 0.800 | 广西居住规范66页 |

## 外遮阳类型

已启用环境遮阳

### 平板遮阳



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 编号 | 水平挑出Ah (m) | 距离上沿Eh (m) | 垂直挑出Av (m) | 距离边沿Ev (m) | 挡板高Dh (m) | 挡板透射η\* |
| 1 | 板 | 0.100 | 0.000 | 0.000 | 0.000 | 4.800 | 0.150 |

### 百叶遮阳



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 序号 | 编号 | 挑出A (m) | 百叶间距D (m) | 下垂C (m) |
| 1 | 3 | 0.300 | 0.800 | 0.000 |
| 2 | 1 | 0.300 | 0.800 | 0.000 |

## 平均传热系数

1. 南向：

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 |  | 1 | 1 | 37.640 | 37.640 | 65 | 2.500 |
| 2 |  | 1 | 1 | 38.200 | 38.200 | 65 | 2.500 |
| 3 |  | 2 | 1 | 7.717 | 7.717 | 65 | 2.500 |
| 4 |  | 2 | 7 | 2.160 | 15.120 | 65 | 2.500 |
| 5 |  | 2 | 7 | 3.600 | 25.200 | 65 | 2.500 |
| 6 |  | 3 | 2 | 0.240 | 0.480 | 65 | 2.500 |
| 7 |  | 3 | 4 | 2.160 | 8.640 | 65 | 2.500 |
| 8 |  | 3 | 1 | 17.520 | 17.520 | 65 | 2.500 |
| 9 |  | 3 | 1 | 9.187 | 9.187 | 65 | 2.500 |
| 10 |  | 3 | 5 | 2.160 | 10.800 | 65 | 2.500 |
| 11 |  | 3 | 5 | 3.600 | 18.000 | 65 | 2.500 |
| 12 |  | 3 | 4 | 18.379 | 73.517 | 65 | 2.500 |
| 13 |  | 3 | 1 | 9.192 | 9.192 | 65 | 2.500 |
| 14 |  | 3 | 1 | 27.859 | 27.859 | 65 | 2.500 |
| 15 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 16 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 17 |  | 3 | 1 | 0.221 | 0.221 | 65 | 2.500 |
| 18 |  | 3 | 1 | 11.942 | 11.942 | 65 | 2.500 |
| 19 |  | 3 | 2 | 2.160 | 4.320 | 65 | 2.500 |
| 20 |  | 3 | 2 | 3.600 | 7.200 | 65 | 2.500 |
| 21 |  | 3 | 1 | 23.880 | 23.880 | 65 | 2.500 |
| 22 |  | 3 | 1 | 11.938 | 11.938 | 65 | 2.500 |
| 23 | C1515 | 1~2 | 4 | 2.250 | 9.000 | 18 | 2.500 |
| 24 | C1515 | 1~2 | 9 | 2.250 | 20.250 | 18 | 2.500 |
| 25 | C1515 | 1~2 | 2 | 2.250 | 4.500 | 18 | 2.500 |
| 26 | C1515 | 2 | 1 | 2.250 | 2.250 | 18 | 2.500 |
| 27 | C1518 | 1~2 | 2 | 2.700 | 5.400 | 18 | 2.500 |
| 28 | C1518 | 1~2 | 2 | 2.700 | 5.400 | 18 | 2.500 |
| 29 | C1518 | 3 | 1 | 2.700 | 2.700 | 18 | 2.500 |
| 30 | C1518 | 3 | 1 | 2.700 | 2.700 | 18 | 2.500 |
| 31 | C1527 | 1 | 1 | 4.050 | 4.050 | 18 | 2.500 |
| 32 | C1527 | 1 | 1 | 4.050 | 4.050 | 18 | 2.500 |
| 33 | C1527 | 2 | 1 | 4.050 | 4.050 | 18 | 2.500 |
| 34 | C1527 | 2 | 1 | 4.050 | 4.050 | 18 | 2.500 |
| 35 | C1527 | 3 | 1 | 4.050 | 4.050 | 18 | 2.500 |
| 36 | C1527 | 3 | 1 | 4.050 | 4.050 | 18 | 2.500 |
| 37 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 38 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 39 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 40 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 41 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 42 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 43 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 44 | C2424 | 3 | 6 | 5.760 | 34.560 | 18 | 2.500 |
| 45 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 46 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 47 | C2430 | 1 | 1 | 7.200 | 7.200 | 18 | 2.500 |
| 48 | C2430 | 2 | 1 | 7.200 | 7.200 | 18 | 2.500 |
| 49 | C2430 | 3 | 2 | 7.200 | 14.400 | 18 | 2.500 |
| 立面总面积(㎡) | 556.033 | 立面平均传热系数 | 2.500 |

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 |  | 1 | 1 | 12.960 | 12.960 | 65 | 2.500 |
| 2 |  | 1 | 2 | 2.160 | 4.320 | 65 | 2.500 |
| 3 |  | 1 | 2 | 3.600 | 7.200 | 65 | 2.500 |
| 4 |  | 1 | 1 | 13.440 | 13.440 | 65 | 2.500 |
| 5 |  | 1 | 8 | 2.160 | 17.280 | 65 | 2.500 |
| 6 |  | 1 | 8 | 3.600 | 28.800 | 65 | 2.500 |
| 7 |  | 1 | 2 | 14.880 | 29.760 | 65 | 2.500 |
| 8 |  | 1 | 1 | 15.302 | 15.302 | 65 | 2.500 |
| 9 |  | 1 | 1 | 14.659 | 14.659 | 65 | 2.500 |
| 10 |  | 1 | 1 | 26.400 | 26.400 | 65 | 2.500 |
| 11 |  | 2 | 2 | 0.240 | 0.480 | 65 | 2.500 |
| 12 |  | 2 | 2 | 2.160 | 4.320 | 65 | 2.500 |
| 13 |  | 2 | 2 | 3.600 | 7.200 | 65 | 2.500 |
| 14 |  | 2 | 1 | 16.320 | 16.320 | 65 | 2.500 |
| 15 |  | 2 | 1 | 0.240 | 0.240 | 65 | 2.500 |
| 16 |  | 2 | 2 | 2.160 | 4.320 | 65 | 2.500 |
| 17 |  | 2 | 2 | 3.600 | 7.200 | 65 | 2.500 |
| 18 |  | 2 | 1 | 25.896 | 25.896 | 65 | 2.500 |
| 19 |  | 2 | 1 | 0.062 | 0.062 | 65 | 2.500 |
| 20 |  | 2 | 4 | 0.240 | 0.960 | 65 | 2.500 |
| 21 |  | 2 | 4 | 2.160 | 8.640 | 65 | 2.500 |
| 22 |  | 2 | 4 | 3.600 | 14.400 | 65 | 2.500 |
| 23 |  | 2 | 1 | 16.944 | 16.944 | 65 | 2.500 |
| 24 |  | 2 | 1 | 16.800 | 16.800 | 65 | 2.500 |
| 25 |  | 2 | 1 | 0.062 | 0.062 | 65 | 2.500 |
| 26 |  | 2 | 2 | 2.160 | 4.320 | 65 | 2.500 |
| 27 |  | 2 | 2 | 3.600 | 7.200 | 65 | 2.500 |
| 28 |  | 2 | 1 | 17.515 | 17.515 | 65 | 2.500 |
| 29 |  | 2 | 1 | 0.240 | 0.240 | 65 | 2.500 |
| 30 |  | 2 | 2 | 0.062 | 0.125 | 65 | 2.500 |
| 31 |  | 2 | 2 | 2.160 | 4.320 | 65 | 2.500 |
| 32 |  | 2 | 2 | 3.600 | 7.200 | 65 | 2.500 |
| 33 |  | 2 | 1 | 25.354 | 25.354 | 65 | 2.500 |
| 34 |  | 3 | 2 | 3.691 | 7.382 | 65 | 2.500 |
| 35 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 36 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 37 |  | 3 | 1 | 12.442 | 12.442 | 65 | 2.500 |
| 38 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 39 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 40 |  | 3 | 1 | 12.437 | 12.437 | 65 | 2.500 |
| 41 |  | 3 | 2 | 4.627 | 9.254 | 65 | 2.500 |
| 42 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 43 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 44 |  | 3 | 1 | 3.509 | 3.509 | 65 | 2.500 |
| 45 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 46 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 47 |  | 3 | 1 | 3.514 | 3.514 | 65 | 2.500 |
| 48 |  | 3 | 1 | 3.634 | 3.634 | 65 | 2.500 |
| 49 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 50 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 51 |  | 3 | 1 | 3.638 | 3.638 | 65 | 2.500 |
| 52 |  | 3 | 1 | 6.562 | 6.562 | 65 | 2.500 |
| 53 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 54 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 55 |  | 3 | 1 | 6.557 | 6.557 | 65 | 2.500 |
| 56 |  | 3 | 1 | 10.401 | 10.401 | 65 | 2.500 |
| 57 |  | 3 | 2 | 4.392 | 8.784 | 65 | 2.500 |
| 58 |  | 3 | 2 | 2.160 | 4.320 | 65 | 2.500 |
| 59 |  | 3 | 2 | 3.600 | 7.200 | 65 | 2.500 |
| 60 |  | 3 | 1 | 8.779 | 8.779 | 65 | 2.500 |
| 61 |  | 3 | 1 | 7.714 | 7.714 | 65 | 2.500 |
| 62 |  | 3 | 6 | 2.160 | 12.960 | 65 | 2.500 |
| 63 |  | 3 | 6 | 3.600 | 21.600 | 65 | 2.500 |
| 64 |  | 3 | 1 | 15.432 | 15.432 | 65 | 2.500 |
| 65 |  | 3 | 1 | 69.202 | 69.202 | 65 | 2.500 |
| 66 |  | 3 | 1 | 0.240 | 0.240 | 65 | 2.500 |
| 67 |  | 3 | 1 | 11.438 | 11.438 | 65 | 2.500 |
| 68 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 69 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 70 |  | 3 | 1 | 11.443 | 11.443 | 65 | 2.500 |
| 71 | C0909 | 1 | 1 | 0.810 | 0.810 | 18 | 2.500 |
| 72 | C0909 | 1 | 1 | 0.810 | 0.810 | 18 | 2.500 |
| 73 | C0909 | 1 | 1 | 0.810 | 0.810 | 18 | 2.500 |
| 74 | C0909 | 1 | 1 | 0.810 | 0.810 | 18 | 2.500 |
| 75 | C0909 | 2 | 1 | 0.810 | 0.810 | 18 | 2.500 |
| 76 | C0909 | 2 | 2 | 0.810 | 1.620 | 18 | 2.500 |
| 77 | C0909 | 2 | 1 | 0.810 | 0.810 | 18 | 2.500 |
| 78 | C0909 | 3 | 3 | 0.810 | 2.430 | 18 | 2.500 |
| 79 | C0909 | 3 | 1 | 0.810 | 0.810 | 18 | 2.500 |
| 80 | C1515 | 1 | 3 | 2.250 | 6.750 | 18 | 2.500 |
| 81 | C1515 | 1 | 2 | 2.250 | 4.500 | 18 | 2.500 |
| 82 | C1515 | 2 | 1 | 2.250 | 2.250 | 18 | 2.500 |
| 83 | C1515 | 3 | 1 | 2.250 | 2.250 | 18 | 2.500 |
| 84 | C1515 | 3 | 1 | 2.250 | 2.250 | 18 | 2.500 |
| 85 | C2424 | 1 | 10 | 5.760 | 57.600 | 18 | 2.500 |
| 86 | C2424 | 2 | 7 | 5.760 | 40.320 | 18 | 2.500 |
| 87 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 88 | C2424 | 2 | 2 | 5.760 | 11.520 | 18 | 2.500 |
| 89 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 90 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 91 | C2424 | 3 | 10 | 5.760 | 57.600 | 18 | 2.500 |
| 92 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 93 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 94 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 95 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 96 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 立面总面积(㎡) | 899.841 | 立面平均传热系数 | 2.500 |

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 |  | 1 | 5 | 2.250 | 11.250 | 65 | 2.500 |
| 2 |  | 1 | 1 | 0.326 | 0.326 | 65 | 2.500 |
| 3 |  | 1 | 1 | 1.234 | 1.234 | 65 | 2.500 |
| 4 |  | 1 | 1 | 0.230 | 0.230 | 65 | 2.500 |
| 5 |  | 1 | 1 | 0.130 | 0.130 | 65 | 2.500 |
| 6 |  | 1 | 1 | 20.760 | 20.760 | 65 | 2.500 |
| 7 |  | 1 | 1 | 8.100 | 8.100 | 65 | 2.500 |
| 8 |  | 1 | 1 | 2.760 | 2.760 | 65 | 2.500 |
| 9 |  | 2 | 1 | 0.043 | 0.043 | 65 | 2.500 |
| 10 |  | 2 | 2 | 1.080 | 2.160 | 65 | 2.500 |
| 11 |  | 2 | 1 | 1.243 | 1.243 | 65 | 2.500 |
| 12 |  | 2 | 5 | 2.250 | 11.250 | 65 | 2.500 |
| 13 |  | 2 | 1 | 0.130 | 0.130 | 65 | 2.500 |
| 14 |  | 2 | 1 | 0.230 | 0.230 | 65 | 2.500 |
| 15 |  | 2 | 1 | 1.234 | 1.234 | 65 | 2.500 |
| 16 |  | 2 | 1 | 0.326 | 0.326 | 65 | 2.500 |
| 17 |  | 2 | 1 | 37.920 | 37.920 | 65 | 2.500 |
| 18 |  | 3 | 2 | 0.240 | 0.480 | 65 | 2.500 |
| 19 |  | 3 | 4 | 2.160 | 8.640 | 65 | 2.500 |
| 20 |  | 3 | 4 | 3.600 | 14.400 | 65 | 2.500 |
| 21 |  | 3 | 1 | 16.728 | 16.728 | 65 | 2.500 |
| 22 |  | 3 | 1 | 0.480 | 0.480 | 65 | 2.500 |
| 23 |  | 3 | 1 | 23.482 | 23.482 | 65 | 2.500 |
| 24 |  | 3 | 1 | 35.760 | 35.760 | 65 | 2.500 |
| 25 |  | 3 | 2 | 11.760 | 23.520 | 65 | 2.500 |
| 26 |  | 3 | 1 | 2.160 | 2.160 | 65 | 2.500 |
| 27 |  | 3 | 1 | 3.600 | 3.600 | 65 | 2.500 |
| 28 | C1230 | 2 | 1 | 3.600 | 3.600 | 18 | 2.500 |
| 29 | C1515 | 1 | 3 | 2.250 | 6.750 | 18 | 2.500 |
| 30 | C1515 | 2 | 1 | 2.250 | 2.250 | 18 | 2.500 |
| 31 | C1530 | 1 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 32 | C1530 | 2 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 33 | C1533 | 1 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 34 | C1533 | 1 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 35 | C1533 | 1 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 36 | C1533 | 1 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 37 | C1533 | 2 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 38 | C1533 | 2 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 39 | C1533 | 2 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 40 | C1533 | 2 | 1 | 4.950 | 4.950 | 18 | 2.500 |
| 41 | C2424 | 3 | 4 | 5.760 | 23.040 | 18 | 2.500 |
| 42 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 2.500 |
| 立面总面积(㎡) | 319.476 | 立面平均传热系数 | 2.500 |

## 综合太阳得热系数

1. 南向：

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(含环境遮阳) | 综合太阳得热系数 |
| 1 |  | 1 | 1 | 37.640 | 37.640 | 65 | 0.348 | 3 | 0.116 | 0.040 |
| 2 |  | 1 | 1 | 38.200 | 38.200 | 65 | 0.348 | 3 | 0.114 | 0.040 |
| 3 |  | 2 | 1 | 7.717 | 7.717 | 65 | 0.348 | 3 | 0.425 | 0.148 |
| 4 |  | 2 | 7 | 2.160 | 15.120 | 65 | 0.348 | 3 | 0.149 | 0.052 |
| 5 |  | 2 | 7 | 3.600 | 25.200 | 65 | 0.348 | 3 | 0.149 | 0.052 |
| 6 |  | 3 | 2 | 0.240 | 0.480 | 65 | 0.348 | 1 | 0.716 | 0.249 |
| 7 |  | 3 | 4 | 2.160 | 8.640 | 65 | 0.348 | 1 | 0.716 | 0.249 |
| 8 |  | 3 | 1 | 17.520 | 17.520 | 65 | 0.348 | 1 | 0.716 | 0.249 |
| 9 |  | 3 | 1 | 9.187 | 9.187 | 65 | 0.348 | 1 | 0.726 | 0.253 |
| 10 |  | 3 | 5 | 2.160 | 10.800 | 65 | 0.348 | 1 | 0.726 | 0.253 |
| 11 |  | 3 | 5 | 3.600 | 18.000 | 65 | 0.348 | 1 | 0.726 | 0.253 |
| 12 |  | 3 | 4 | 18.379 | 73.517 | 65 | 0.348 | 1 | 0.726 | 0.253 |
| 13 |  | 3 | 1 | 9.192 | 9.192 | 65 | 0.348 | 1 | 0.726 | 0.253 |
| 14 |  | 3 | 1 | 27.859 | 27.859 | 65 | 0.348 | 1 | 0.748 | 0.260 |
| 15 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.748 | 0.260 |
| 16 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.748 | 0.260 |
| 17 |  | 3 | 1 | 0.221 | 0.221 | 65 | 0.348 | 1 | 0.748 | 0.260 |
| 18 |  | 3 | 1 | 11.942 | 11.942 | 65 | 0.348 | 1 | 0.257 | 0.089 |
| 19 |  | 3 | 2 | 2.160 | 4.320 | 65 | 0.348 | 1 | 0.257 | 0.089 |
| 20 |  | 3 | 2 | 3.600 | 7.200 | 65 | 0.348 | 1 | 0.257 | 0.089 |
| 21 |  | 3 | 1 | 23.880 | 23.880 | 65 | 0.348 | 1 | 0.257 | 0.089 |
| 22 |  | 3 | 1 | 11.938 | 11.938 | 65 | 0.348 | 1 | 0.257 | 0.089 |
| 23 | C1515 | 1~2 | 4 | 2.250 | 9.000 | 18 | 0.348 | 3 | 0.712 | 0.248 |
| 24 | C1515 | 1~2 | 9 | 2.250 | 20.250 | 18 | 0.348 | 3 | 0.710 | 0.247 |
| 25 | C1515 | 1~2 | 2 | 2.250 | 4.500 | 18 | 0.348 | 3 | 0.711 | 0.247 |
| 26 | C1515 | 2 | 1 | 2.250 | 2.250 | 18 | 0.348 | 3 | 0.709 | 0.247 |
| 27 | C1518 | 1~2 | 2 | 2.700 | 5.400 | 18 | 0.348 | 3 | 0.706 | 0.246 |
| 28 | C1518 | 1~2 | 2 | 2.700 | 5.400 | 18 | 0.348 | 3 | 0.701 | 0.244 |
| 29 | C1518 | 3 | 1 | 2.700 | 2.700 | 18 | 0.348 | 1 | 0.806 | 0.280 |
| 30 | C1518 | 3 | 1 | 2.700 | 2.700 | 18 | 0.348 | 1 | 0.753 | 0.262 |
| 31 | C1527 | 1 | 1 | 4.050 | 4.050 | 18 | 0.348 | 3 | 0.772 | 0.269 |
| 32 | C1527 | 1 | 1 | 4.050 | 4.050 | 18 | 0.348 | 3 | 0.767 | 0.267 |
| 33 | C1527 | 2 | 1 | 4.050 | 4.050 | 18 | 0.348 | 3 | 0.662 | 0.230 |
| 34 | C1527 | 2 | 1 | 4.050 | 4.050 | 18 | 0.348 | 3 | 0.657 | 0.229 |
| 35 | C1527 | 3 | 1 | 4.050 | 4.050 | 18 | 0.348 | 1 | 0.799 | 0.278 |
| 36 | C1527 | 3 | 1 | 4.050 | 4.050 | 18 | 0.348 | 1 | 0.743 | 0.259 |
| 37 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.195 | 0.068 |
| 38 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.204 | 0.071 |
| 39 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.212 | 0.074 |
| 40 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.227 | 0.079 |
| 41 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.217 | 0.076 |
| 42 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.219 | 0.076 |
| 43 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.211 | 0.073 |
| 44 | C2424 | 3 | 6 | 5.760 | 34.560 | 18 | 0.348 | 1 | 0.748 | 0.260 |
| 45 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 0.348 | 1 | 0.414 | 0.144 |
| 46 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 0.348 | 1 | 0.117 | 0.041 |
| 47 | C2430 | 1 | 1 | 7.200 | 7.200 | 18 | 0.348 | 3 | 1.000 | 0.348 |
| 48 | C2430 | 2 | 1 | 7.200 | 7.200 | 18 | 0.348 | 3 | 0.727 | 0.253 |
| 49 | C2430 | 3 | 2 | 7.200 | 14.400 | 18 | 0.348 | 1 | 0.749 | 0.261 |
| 立面总面积(㎡) | 556.033 | 综合太阳得热系数 | 0.506 | 0.176 |

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(含环境遮阳) | 综合太阳得热系数 |
| 1 |  | 1 | 1 | 12.960 | 12.960 | 65 | 0.348 | 板 | 1.000 | 0.348 |
| 2 |  | 1 | 2 | 2.160 | 4.320 | 65 | 0.348 | 板 | 1.000 | 0.348 |
| 3 |  | 1 | 2 | 3.600 | 7.200 | 65 | 0.348 | 板 | 1.000 | 0.348 |
| 4 |  | 1 | 1 | 13.440 | 13.440 | 65 | 0.348 | 板 | 1.000 | 0.348 |
| 5 |  | 1 | 8 | 2.160 | 17.280 | 65 | 0.348 | 板 | 0.126 | 0.044 |
| 6 |  | 1 | 8 | 3.600 | 28.800 | 65 | 0.348 | 板 | 0.126 | 0.044 |
| 7 |  | 1 | 2 | 14.880 | 29.760 | 65 | 0.348 | 板 | 0.126 | 0.044 |
| 8 |  | 1 | 1 | 15.302 | 15.302 | 65 | 0.348 | 板 | 0.126 | 0.044 |
| 9 |  | 1 | 1 | 14.659 | 14.659 | 65 | 0.348 | 板 | 0.126 | 0.044 |
| 10 |  | 1 | 1 | 26.400 | 26.400 | 65 | 0.348 | 板 | 1.000 | 0.348 |
| 11 |  | 2 | 2 | 0.240 | 0.480 | 65 | 0.348 | 3 | 0.653 | 0.227 |
| 12 |  | 2 | 2 | 2.160 | 4.320 | 65 | 0.348 | 3 | 0.653 | 0.227 |
| 13 |  | 2 | 2 | 3.600 | 7.200 | 65 | 0.348 | 3 | 0.653 | 0.227 |
| 14 |  | 2 | 1 | 16.320 | 16.320 | 65 | 0.348 | 3 | 0.653 | 0.227 |
| 15 |  | 2 | 1 | 0.240 | 0.240 | 65 | 0.348 | 3 | 0.661 | 0.230 |
| 16 |  | 2 | 2 | 2.160 | 4.320 | 65 | 0.348 | 3 | 0.661 | 0.230 |
| 17 |  | 2 | 2 | 3.600 | 7.200 | 65 | 0.348 | 3 | 0.661 | 0.230 |
| 18 |  | 2 | 1 | 25.896 | 25.896 | 65 | 0.348 | 3 | 0.661 | 0.230 |
| 19 |  | 2 | 1 | 0.062 | 0.062 | 65 | 0.348 | 3 | 0.661 | 0.230 |
| 20 |  | 2 | 4 | 0.240 | 0.960 | 65 | 0.348 | 3 | 0.654 | 0.228 |
| 21 |  | 2 | 4 | 2.160 | 8.640 | 65 | 0.348 | 3 | 0.654 | 0.228 |
| 22 |  | 2 | 4 | 3.600 | 14.400 | 65 | 0.348 | 3 | 0.654 | 0.228 |
| 23 |  | 2 | 1 | 16.944 | 16.944 | 65 | 0.348 | 3 | 0.654 | 0.228 |
| 24 |  | 2 | 1 | 16.800 | 16.800 | 65 | 0.348 | 3 | 0.654 | 0.228 |
| 25 |  | 2 | 1 | 0.062 | 0.062 | 65 | 0.348 | 3 | 0.656 | 0.228 |
| 26 |  | 2 | 2 | 2.160 | 4.320 | 65 | 0.348 | 3 | 0.656 | 0.228 |
| 27 |  | 2 | 2 | 3.600 | 7.200 | 65 | 0.348 | 3 | 0.656 | 0.228 |
| 28 |  | 2 | 1 | 17.515 | 17.515 | 65 | 0.348 | 3 | 0.656 | 0.228 |
| 29 |  | 2 | 1 | 0.240 | 0.240 | 65 | 0.348 | 3 | 0.656 | 0.228 |
| 30 |  | 2 | 2 | 0.062 | 0.125 | 65 | 0.348 | 3 | 0.698 | 0.243 |
| 31 |  | 2 | 2 | 2.160 | 4.320 | 65 | 0.348 | 3 | 0.698 | 0.243 |
| 32 |  | 2 | 2 | 3.600 | 7.200 | 65 | 0.348 | 3 | 0.698 | 0.243 |
| 33 |  | 2 | 1 | 25.354 | 25.354 | 65 | 0.348 | 3 | 0.698 | 0.243 |
| 34 |  | 3 | 2 | 3.691 | 7.382 | 65 | 0.348 | 1 | 0.757 | 0.263 |
| 35 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.757 | 0.263 |
| 36 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.757 | 0.263 |
| 37 |  | 3 | 1 | 12.442 | 12.442 | 65 | 0.348 | 1 | 0.441 | 0.153 |
| 38 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.441 | 0.153 |
| 39 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.441 | 0.153 |
| 40 |  | 3 | 1 | 12.437 | 12.437 | 65 | 0.348 | 1 | 0.441 | 0.153 |
| 41 |  | 3 | 2 | 4.627 | 9.254 | 65 | 0.348 | 1 | 0.722 | 0.251 |
| 42 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.722 | 0.251 |
| 43 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.722 | 0.251 |
| 44 |  | 3 | 1 | 3.509 | 3.509 | 65 | 0.348 | 1 | 0.746 | 0.260 |
| 45 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.746 | 0.260 |
| 46 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.746 | 0.260 |
| 47 |  | 3 | 1 | 3.514 | 3.514 | 65 | 0.348 | 1 | 0.746 | 0.260 |
| 48 |  | 3 | 1 | 3.634 | 3.634 | 65 | 0.348 | 1 | 0.748 | 0.260 |
| 49 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.748 | 0.260 |
| 50 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.748 | 0.260 |
| 51 |  | 3 | 1 | 3.638 | 3.638 | 65 | 0.348 | 1 | 0.748 | 0.260 |
| 52 |  | 3 | 1 | 6.562 | 6.562 | 65 | 0.348 | 1 | 0.155 | 0.054 |
| 53 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.155 | 0.054 |
| 54 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.155 | 0.054 |
| 55 |  | 3 | 1 | 6.557 | 6.557 | 65 | 0.348 | 1 | 0.155 | 0.054 |
| 56 |  | 3 | 1 | 10.401 | 10.401 | 65 | 0.348 | 1 | 0.139 | 0.048 |
| 57 |  | 3 | 2 | 4.392 | 8.784 | 65 | 0.348 | 1 | 0.671 | 0.234 |
| 58 |  | 3 | 2 | 2.160 | 4.320 | 65 | 0.348 | 1 | 0.671 | 0.234 |
| 59 |  | 3 | 2 | 3.600 | 7.200 | 65 | 0.348 | 1 | 0.671 | 0.234 |
| 60 |  | 3 | 1 | 8.779 | 8.779 | 65 | 0.348 | 1 | 0.671 | 0.234 |
| 61 |  | 3 | 1 | 7.714 | 7.714 | 65 | 0.348 | 1 | 0.765 | 0.266 |
| 62 |  | 3 | 6 | 2.160 | 12.960 | 65 | 0.348 | 1 | 0.765 | 0.266 |
| 63 |  | 3 | 6 | 3.600 | 21.600 | 65 | 0.348 | 1 | 0.765 | 0.266 |
| 64 |  | 3 | 1 | 15.432 | 15.432 | 65 | 0.348 | 1 | 0.765 | 0.266 |
| 65 |  | 3 | 1 | 69.202 | 69.202 | 65 | 0.348 | 1 | 0.765 | 0.266 |
| 66 |  | 3 | 1 | 0.240 | 0.240 | 65 | 0.348 | 1 | 0.765 | 0.266 |
| 67 |  | 3 | 1 | 11.438 | 11.438 | 65 | 0.348 | 1 | 0.142 | 0.049 |
| 68 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.142 | 0.049 |
| 69 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.142 | 0.049 |
| 70 |  | 3 | 1 | 11.443 | 11.443 | 65 | 0.348 | 1 | 0.142 | 0.049 |
| 71 | C0909 | 1 | 1 | 0.810 | 0.810 | 18 | 0.348 | 3 | 0.618 | 0.215 |
| 72 | C0909 | 1 | 1 | 0.810 | 0.810 | 18 | 0.348 | 3 | 0.621 | 0.216 |
| 73 | C0909 | 1 | 1 | 0.810 | 0.810 | 18 | 0.348 | 3 | 0.622 | 0.216 |
| 74 | C0909 | 1 | 1 | 0.810 | 0.810 | 18 | 0.348 | 3 | 0.623 | 0.217 |
| 75 | C0909 | 2 | 1 | 0.810 | 0.810 | 18 | 0.348 | 3 | 0.779 | 0.271 |
| 76 | C0909 | 2 | 2 | 0.810 | 1.620 | 18 | 0.348 | 3 | 0.778 | 0.271 |
| 77 | C0909 | 2 | 1 | 0.810 | 0.810 | 18 | 0.348 | 3 | 0.775 | 0.270 |
| 78 | C0909 | 3 | 3 | 0.810 | 2.430 | 18 | 0.348 | 1 | 0.747 | 0.260 |
| 79 | C0909 | 3 | 1 | 0.810 | 0.810 | 18 | 0.348 | 1 | 0.750 | 0.261 |
| 80 | C1515 | 1 | 3 | 2.250 | 6.750 | 18 | 0.348 | 3 | 1.000 | 0.348 |
| 81 | C1515 | 1 | 2 | 2.250 | 4.500 | 18 | 0.348 |  | 1.000 | 0.348 |
| 82 | C1515 | 2 | 1 | 2.250 | 2.250 | 18 | 0.348 | 3 | 0.189 | 0.066 |
| 83 | C1515 | 3 | 1 | 2.250 | 2.250 | 18 | 0.348 |  | 0.872 | 0.303 |
| 84 | C1515 | 3 | 1 | 2.250 | 2.250 | 18 | 0.348 |  | 0.649 | 0.226 |
| 85 | C2424 | 1 | 10 | 5.760 | 57.600 | 18 | 0.348 |  | 1.000 | 0.348 |
| 86 | C2424 | 2 | 7 | 5.760 | 40.320 | 18 | 0.348 | 3 | 0.684 | 0.238 |
| 87 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.683 | 0.238 |
| 88 | C2424 | 2 | 2 | 5.760 | 11.520 | 18 | 0.348 | 3 | 0.691 | 0.240 |
| 89 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.728 | 0.253 |
| 90 | C2424 | 2 | 1 | 5.760 | 5.760 | 18 | 0.348 | 3 | 0.725 | 0.252 |
| 91 | C2424 | 3 | 10 | 5.760 | 57.600 | 18 | 0.348 | 1 | 0.765 | 0.266 |
| 92 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 0.348 | 1 | 0.499 | 0.174 |
| 93 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 0.348 | 1 | 0.132 | 0.046 |
| 94 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 0.348 | 1 | 0.747 | 0.260 |
| 95 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 0.348 | 1 | 0.650 | 0.226 |
| 96 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 0.348 | 1 | 0.117 | 0.041 |
| 立面总面积(㎡) | 899.841 | 综合太阳得热系数 | 0.630 | 0.219 |

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(含环境遮阳) | 综合太阳得热系数 |
| 1 |  | 1 | 5 | 2.250 | 11.250 | 65 | 0.348 | 3 | 0.751 | 0.261 |
| 2 |  | 1 | 1 | 0.326 | 0.326 | 65 | 0.348 | 3 | 0.751 | 0.261 |
| 3 |  | 1 | 1 | 1.234 | 1.234 | 65 | 0.348 | 3 | 0.751 | 0.261 |
| 4 |  | 1 | 1 | 0.230 | 0.230 | 65 | 0.348 | 3 | 0.751 | 0.261 |
| 5 |  | 1 | 1 | 0.130 | 0.130 | 65 | 0.348 | 3 | 0.751 | 0.261 |
| 6 |  | 1 | 1 | 20.760 | 20.760 | 65 | 0.348 | 板 | 0.233 | 0.081 |
| 7 |  | 1 | 1 | 8.100 | 8.100 | 65 | 0.348 | 板 | 0.233 | 0.081 |
| 8 |  | 1 | 1 | 2.760 | 2.760 | 65 | 0.348 | 板 | 0.233 | 0.081 |
| 9 |  | 2 | 1 | 0.043 | 0.043 | 65 | 0.348 | 3 | 0.441 | 0.153 |
| 10 |  | 2 | 2 | 1.080 | 2.160 | 65 | 0.348 | 3 | 0.441 | 0.153 |
| 11 |  | 2 | 1 | 1.243 | 1.243 | 65 | 0.348 | 3 | 0.441 | 0.153 |
| 12 |  | 2 | 5 | 2.250 | 11.250 | 65 | 0.348 | 3 | 0.689 | 0.240 |
| 13 |  | 2 | 1 | 0.130 | 0.130 | 65 | 0.348 | 3 | 0.689 | 0.240 |
| 14 |  | 2 | 1 | 0.230 | 0.230 | 65 | 0.348 | 3 | 0.689 | 0.240 |
| 15 |  | 2 | 1 | 1.234 | 1.234 | 65 | 0.348 | 3 | 0.689 | 0.240 |
| 16 |  | 2 | 1 | 0.326 | 0.326 | 65 | 0.348 | 3 | 0.689 | 0.240 |
| 17 |  | 2 | 1 | 37.920 | 37.920 | 65 | 0.348 | 3 | 0.223 | 0.078 |
| 18 |  | 3 | 2 | 0.240 | 0.480 | 65 | 0.348 | 1 | 0.780 | 0.271 |
| 19 |  | 3 | 4 | 2.160 | 8.640 | 65 | 0.348 | 1 | 0.780 | 0.271 |
| 20 |  | 3 | 4 | 3.600 | 14.400 | 65 | 0.348 | 1 | 0.780 | 0.271 |
| 21 |  | 3 | 1 | 16.728 | 16.728 | 65 | 0.348 | 1 | 0.780 | 0.271 |
| 22 |  | 3 | 1 | 0.480 | 0.480 | 65 | 0.348 | 1 | 0.780 | 0.271 |
| 23 |  | 3 | 1 | 23.482 | 23.482 | 65 | 0.348 | 1 | 0.780 | 0.271 |
| 24 |  | 3 | 1 | 35.760 | 35.760 | 65 | 0.348 | 1 | 0.658 | 0.229 |
| 25 |  | 3 | 2 | 11.760 | 23.520 | 65 | 0.348 | 1 | 0.479 | 0.167 |
| 26 |  | 3 | 1 | 2.160 | 2.160 | 65 | 0.348 | 1 | 0.479 | 0.167 |
| 27 |  | 3 | 1 | 3.600 | 3.600 | 65 | 0.348 | 1 | 0.479 | 0.167 |
| 28 | C1230 | 2 | 1 | 3.600 | 3.600 | 18 | 0.348 | 3 | 0.431 | 0.150 |
| 29 | C1515 | 1 | 3 | 2.250 | 6.750 | 18 | 0.348 | 3 | 1.000 | 0.348 |
| 30 | C1515 | 2 | 1 | 2.250 | 2.250 | 18 | 0.348 | 3 | 0.157 | 0.055 |
| 31 | C1530 | 1 | 1 | 4.950 | 4.950 | 18 | 0.348 |  | 0.971 | 0.338 |
| 32 | C1530 | 2 | 1 | 4.950 | 4.950 | 18 | 0.348 | 3 | 0.767 | 0.267 |
| 33 | C1533 | 1 | 1 | 4.950 | 4.950 | 18 | 0.348 |  | 0.984 | 0.342 |
| 34 | C1533 | 1 | 1 | 4.950 | 4.950 | 18 | 0.348 |  | 0.972 | 0.338 |
| 35 | C1533 | 1 | 1 | 4.950 | 4.950 | 18 | 0.348 |  | 0.981 | 0.341 |
| 36 | C1533 | 1 | 1 | 4.950 | 4.950 | 18 | 0.348 |  | 0.986 | 0.343 |
| 37 | C1533 | 2 | 1 | 4.950 | 4.950 | 18 | 0.348 | 3 | 0.777 | 0.270 |
| 38 | C1533 | 2 | 1 | 4.950 | 4.950 | 18 | 0.348 | 3 | 0.767 | 0.267 |
| 39 | C1533 | 2 | 1 | 4.950 | 4.950 | 18 | 0.348 | 3 | 0.768 | 0.267 |
| 40 | C1533 | 2 | 1 | 4.950 | 4.950 | 18 | 0.348 | 3 | 0.779 | 0.271 |
| 41 | C2424 | 3 | 4 | 5.760 | 23.040 | 18 | 0.348 | 1 | 0.799 | 0.278 |
| 42 | C2424 | 3 | 1 | 5.760 | 5.760 | 18 | 0.348 | 1 | 0.492 | 0.171 |
| 立面总面积(㎡) | 319.476 | 综合太阳得热系数 | 0.617 | 0.215 |

## 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 |
| 北向 | 北-默认立面 | 556.03 | 2.50 | 0.18 | 0.58 | K≤2.50, SHGC≤0.35 | 满足 |
| 东向 | 东-默认立面 | 899.84 | 2.50 | 0.22 | 0.60 | K≤2.50, SHGC≤0.26 | 满足 |
| 西向 | 西-默认立面 | 319.48 | 2.50 | 0.21 | 0.57 | K≤2.50, SHGC≤0.26 | 满足 |
| 综合平均 |  | 1775.35 | 2.50 | 0.20 | 0.59 |  |  |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.3.1条 |
| 标准要求 | 外窗传热系数和综合太阳得热系数满足表3.3.1-2的要求 |
| 结论 | 满足 |

注：本表所统计的外窗包含凸窗。

# 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 |
| 2 | 2004(最不利房间) | 84.57 | 89.43 | 未编号 | 37.92 | 0.00 | 幕墙 | 0.59 | 0.10 | 满足 |
| 未编号 | 0.04 | 0.00 | 幕墙 |
| 未编号 | 1.08 | 0.00 | 幕墙 |
| C1230 | 3.60 | 0.33 | 外窗 |
| 未编号 | 1.08 | 0.00 | 幕墙 |
| 未编号 | 1.24 | 0.00 | 幕墙 |
| 未编号 | 0.06 | 0.00 | 幕墙 |
| 未编号 | 2.16 | 0.00 | 幕墙 |
| C2424 | 5.76 | 0.67 | 外窗 |
| 未编号 | 3.60 | 0.00 | 幕墙 |
| 未编号 | 17.52 | 0.00 | 幕墙 |
| 未编号 | 2.16 | 0.00 | 幕墙 |
| C2424 | 5.76 | 0.67 | 外窗 |
| 未编号 | 3.60 | 0.00 | 幕墙 |
| 未编号 | 0.24 | 0.00 | 幕墙 |
| 通风换气装置 | 无 |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.2.7条 |
| 标准要求 | 甲类建筑外窗有效通风换气面积不应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 |
| 北向 | 北-默认立面 | 0.00 | 556.03 | 0.00 | 0.15 | 满足 |
| 东向 | 东-默认立面 | 0.00 | 899.84 | 0.00 | 0.15 | 满足 |
| 西向 | 西-默认立面 | 0.00 | 319.48 | 0.00 | 0.15 | 满足 |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019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 | 6级 C0909 | － |
| 外窗气密性措施 |  |  |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.3.5条 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.3.5条 |
| 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 | 满足 | － |

# 幕墙气密性

|  |  |
| --- | --- |
| 最不利气密性等级 | 4级  |
| 幕墙气密性措施 |  |
| 通风换气装置 | 无 |
| 标准依据 | 《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019第3.3.6条 |
| 标准要求 | 幕墙气密性不应低于《建筑幕墙》GB/T 21086-2007的3级 |
| 结论 | 满足 |

# 规定性指标检查结论

|  |  |  |  |
| --- | --- | --- | --- |
| 序号 | 检查项 | 结论 | 可否性能权衡 |
| 1 | 窗墙比 | 适宜 |  |
| 2 | 可见光透射比 | 满足 |  |
| 3 | 天窗类型 | 无屋顶透光部分 |  |
| 4 | 屋顶构造 | 满足 |  |
| 5 | 外墙构造 | 满足 |  |
| 6 | 挑空楼板构造 | 满足 |  |
| 7 | 外窗热工 | 满足 |  |
| 8 | 有效通风换气面积 | 满足 |  |
| 9 | 非中空窗面积比 | 满足 |  |
| 10 | 外窗气密性 | 满足 |  |
| 11 | 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**《广西壮族自治区公共建筑节能65%设计标准》DBJ/T45-096-2019的要求。