**建筑节能设计报告书**

公共建筑－综合权衡

|  |  |
| --- | --- |
| 工程名称 | 青春记忆 |
| 工程地点 | 云南-昆明 |
| 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1月5日 |



|  |  |
| --- | --- |
| 采用软件 | 节能设计BECS2020 |
| 软件版本 | 20190808 |
| 研发单位 | 北京绿建软件有限公司 |
| 正版授权码 |  |

**目 录**

[1 建筑概况 4](#_Toc60769114)

[2 设计依据 4](#_Toc60769115)

[3 工程材料 4](#_Toc60769116)

[4 围护结构作法简要说明 5](#_Toc60769117)

[5 体形系数 6](#_Toc60769118)

[6 窗墙比 6](#_Toc60769119)

[6.1 窗墙比 6](#_Toc60769120)

[6.2 外窗表 6](#_Toc60769121)

[7 可见光透射比 8](#_Toc60769122)

[8 天窗 9](#_Toc60769123)

[8.1 天窗屋顶比 9](#_Toc60769124)

[8.2 天窗类型 9](#_Toc60769125)

[9 屋顶构造 9](#_Toc60769126)

[9.1 屋顶相关构造 9](#_Toc60769127)

[9.1.1 屋顶构造一 9](#_Toc60769128)

[9.1.2 屋顶防火隔离带构造一 9](#_Toc60769129)

[9.2 屋顶平均热工特性 10](#_Toc60769130)

[10 外墙构造 10](#_Toc60769131)

[10.1 外墙相关构造 10](#_Toc60769132)

[10.1.1 外墙构造一 10](#_Toc60769133)

[10.1.2 热桥柱构造一 10](#_Toc60769134)

[10.1.3 热桥梁构造一 10](#_Toc60769135)

[10.2 外墙主断面传热系数的修正系数ψ 11](#_Toc60769136)

[10.3 外墙平均热工特性 11](#_Toc60769137)

[11 挑空楼板构造 12](#_Toc60769138)

[11.1 挑空楼板构造一 12](#_Toc60769139)

[12 外窗热工 12](#_Toc60769140)

[12.1 外窗构造 12](#_Toc60769141)

[12.2 外遮阳类型 13](#_Toc60769142)

[12.2.1 平板遮阳 13](#_Toc60769143)

[12.3 平均传热系数 13](#_Toc60769144)

[12.4 综合太阳得热系数 16](#_Toc60769145)

[12.5 总体热工性能 19](#_Toc60769146)

[13 有效通风换气面积 20](#_Toc60769147)

[14 非中空窗面积比 21](#_Toc60769148)

[15 外窗气密性 21](#_Toc60769149)

[16 幕墙气密性 22](#_Toc60769150)

[17 综合权衡 22](#_Toc60769151)

[17.1 计算条件 22](#_Toc60769152)

[17.2 房间类型 23](#_Toc60769153)

[17.2.1 房间表 23](#_Toc60769154)

[17.2.2 作息时间表 23](#_Toc60769155)

[17.3 综合权衡 23](#_Toc60769156)

[18 综合权衡判断结论 23](#_Toc60769157)

[19 附录 24](#_Toc60769158)

[19.1 工作日/节假日室内空调温度时间表(℃) 24](#_Toc60769159)

[19.2 工作日/节假日室内供暖温度时间表(℃) 24](#_Toc60769160)

[19.3 工作日/节假日人员逐时在室率(%) 24](#_Toc60769161)

[19.4 工作日/节假日照明开关时间表(%) 25](#_Toc60769162)

[19.5 工作日/节假日设备逐时使用率(%) 25](#_Toc60769163)

[19.6 工作日/节假日空调系统运行时间表(1:开,0:关) 26](#_Toc60769164)

# 建筑概况

|  |  |  |
| --- | --- | --- |
| 工程名称 | 青春记忆 | |
| 工程地点 | 云南-昆明 | |
| 地理位置 | 北纬：25.00° | 东经：102.68° |
| 建筑面积 | 地上18179㎡ 地下0㎡ | |
| 建筑层数 | 地上6 地下0 | |
| 建筑高度 | 22.5m | |
| 建筑（节能计算）体积 | 71218.31 | |
| 建筑（节能计算）外表面积 | 19221.00 | |
| 北向角度 | 61 | |
| 结构类型 | 框架结构 | |
| 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）

# 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 |
| 混凝土多孔砖(190六孔砖） | 0.750 | 7.490 | 1450.0 | 709.4 | 0.0000 |  |
| 聚苯颗粒保温砂浆 | 0.060 | 0.950 | 230.0 | 900.0 | 0.0000 |  |
| 挤塑聚苯乙烯泡沫板（XPS）(ρ=30) | 0.030 | 0.540 | 30.0 | 4455.3 | 0.0000 |  |
| 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 |
| 粘土多孔砖KP1，KM1-190/240 | 0.580 | 7.920 | 1400.0 | 1062.3 | 0.0000 |  |
| 挤塑聚苯板 | 0.033 | 0.347 | 28.0 | 1790.0 | 0.0000 |  |
| 抗裂砂浆（网格布） | 0.930 | 11.306 | 1800.0 | 1050.0 | 0.0000 |  |
| 阻燃聚苯乙烯泡沫板EPS | 0.050 | 0.430 | 20.0 | 2546.0 | 0.0000 |  |
| 防水层(沥青油毡、油毡纸) | 0.170 | 3.302 | 600.0 | 1470.0 | 0.0000 |  |

# 围护结构作法简要说明

**1. 屋顶：**屋顶构造一：（由上到下）

防水层(沥青油毡、油毡纸) 25mm＋水泥砂浆 20mm＋挤塑聚苯乙烯泡沫板（XPS）(ρ=30) 35mm＋水泥砂浆 20mm＋钢筋混凝土 100mm

**2. 屋顶防火隔离带：**屋顶防火隔离带构造一：（由上到下）

水泥砂浆 20mm＋聚苯颗粒保温砂浆 20mm＋水泥砂浆 20mm＋钢筋混凝土 200mm＋石灰砂浆 20mm

**3. 外墙构造：**外墙构造一：（由外到内）

石灰水泥砂浆（混合砂浆） 20mm＋粘土多孔砖KP1，KM1-190/240 240mm＋挤塑聚苯板 20mm＋抗裂砂浆（网格布） 5mm

**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 50mm＋阻燃聚苯乙烯泡沫板EPS 40mm＋抗裂砂浆（网格布） 5mm

**5. 外窗：**60系列铝塑共挤平开窗+5~6高透光Low-E玻璃：

传热系数3.200W/m^2.K，自身遮阳系数0.310

**6. 幕墙：**6mm空气Low-E中空玻璃铝合金窗（上限）：

传热系数4.170W/m^2.K，自身遮阳系数0.400

# 体形系数

|  |  |
| --- | --- |
| 外表面积 | 19221.00 |
| 建筑体积 | 71218.31 |
| 体形系数 | 0.27 |

# 窗墙比

## 窗墙比

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗面积(㎡) | 墙面积(㎡) | 窗墙比 |
| 南向 | 立面3 | 714.96 | 2382.22 | 0.30 |
| 北向 | 立面4 | 383.88 | 3368.96 | 0.11 |
| 东向 | 立面1 | 789.39 | 3097.04 | 0.25 |
| 西向 | 立面2 | 256.41 | 1979.46 | 0.13 |
| 平均 |  | 2144.64 | 10827.69 | 0.20 |

## 外窗表

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 编号 | 尺寸 | 楼层 | 数量 | 单个面积 （㎡） | 合计面积 （㎡） |
| 南向 714.96 |  | 1.80×0.90 | 1,3,6 | 3 | 1.62 | 4.86 |
|  | 1.80×1.00 | 1,3,6 | 3 | 1.80 | 5.40 |
|  | 2.20×3.00 | 1,3,6 | 3 | 6.60 | 19.80 |
| C0912 | 0.90×1.20 | 1 | 1 | 1.08 | 1.08 |
| C1527 | 1.50×2.70 | 1,3,5 | 3 | 4.05 | 12.15 |
| C1815,C1814 | 1.80×1.10 | 1~3,5 | 4 | 1.98 | 7.92 |
| C1815,C1814 | 1.80×1.10 | 4 | 1 | 1.98 | 1.98 |
| C1822 | 1.80×2.20 | 1~5 | 10 | 3.96 | 39.60 |
| C1825 | 1.80×1.10 | 6 | 1 | 1.98 | 1.98 |
| C2112 | 2.10×1.20 | 1 | 1 | 2.52 | 2.52 |
| C2115 | 2.10×1.50 | 1 | 2 | 3.15 | 6.30 |
| C2522 | 2.50×1.80 | 1~3 | 3 | 4.50 | 13.50 |
| C2622 | 2.60×1.80 | 1,3 | 2 | 4.68 | 9.36 |
| C3322 | 3.30×1.80 | 1~3 | 27 | 5.94 | 160.38 |
| C3322 | 3.30×0.60 | 3 | 1 | 1.98 | 1.98 |
| C3322 | 3.30×2.20 | 5 | 1 | 7.26 | 7.26 |
| C3518 | 3.55×1.80 | 5 | 1 | 6.39 | 6.39 |
| C3522 | 3.55×1.80 | 1~5 | 58 | 6.39 | 370.62 |
| C3607 | 3.60×0.70 | 1 | 1 | 2.52 | 2.52 |
| C3612 | 3.60×1.20 | 1 | 1 | 4.32 | 4.32 |
| C3622 | 3.60×2.20 | 1 | 2 | 7.92 | 15.84 |
| C4222 | 4.25×1.80 | 3,5 | 2 | 7.65 | 15.30 |
| GC2615 | 2.60×1.50 | 1 | 1 | 3.90 | 3.90 |
| 北向 383.88 |  | 2.40×1.05 | 1 | 1 | 2.52 | 2.52 |
|  | 1.20×1.05 | 1 | 1 | 1.26 | 1.26 |
|  | 2.30×1.05 | 1~5 | 5 | 2.42 | 12.08 |
|  | 1.10×1.05 | 1~5 | 5 | 1.16 | 5.78 |
|  | 2.30×3.00 | 6 | 1 | 6.90 | 6.90 |
|  | 1.10×3.00 | 6 | 1 | 3.30 | 3.30 |
| C0919 | 0.90×1.90 | 6 | 1 | 1.71 | 1.71 |
| C1221 | 1.20×2.10 | 1~2 | 2 | 2.52 | 5.04 |
| C1221 | 2.10×2.10 | 2 | 1 | 4.41 | 4.41 |
| C1527 | 1.50×2.70 | 1~3,5 | 5 | 4.05 | 20.25 |
| C1527 | 1.50×2.70 | 3 | 1 | 4.05 | 4.05 |
| C1825 | 1.80×1.10 | 6 | 1 | 1.98 | 1.98 |
| C2118 | 2.10×1.80 | 1~2 | 2 | 3.78 | 7.56 |
| C2419 | 2.40×1.90 | 6 | 1 | 4.56 | 4.56 |
| C2424 | 2.40×2.40 | 2 | 2 | 5.76 | 11.52 |
| C2622 | 2.60×1.80 | 1 | 1 | 4.68 | 4.68 |
| C3022 | 3.00×1.80 | 2~3 | 2 | 5.40 | 10.80 |
| C3312 | 3.30×1.20 | 1 | 1 | 3.96 | 3.96 |
| C3321 | 3.30×2.10 | 2 | 1 | 6.93 | 6.93 |
| C3522 | 3.55×1.80 | 1~4 | 23 | 6.39 | 146.97 |
| C3607 | 3.60×0.70 | 1 | 3 | 2.52 | 7.56 |
| C3619 | 3.60×1.90 | 6 | 1 | 6.84 | 6.84 |
| C3722 | 3.70×1.80 | 1,4 | 2 | 6.66 | 13.32 |
| C4222 | 4.25×1.80 | 2 | 1 | 7.65 | 7.65 |
| C4322 | 4.25×2.20 | 1~2 | 2 | 9.35 | 18.70 |
| C4322 | 3.60×2.20 | 2 | 1 | 7.92 | 7.92 |
| C5522 | 5.50×1.80 | 1 | 1 | 9.90 | 9.90 |
| C7322 | 7.30×2.20 | 1~2 | 2 | 16.06 | 32.12 |
| GC2615 | 2.60×1.50 | 1 | 1 | 3.90 | 3.90 |
| 透光门-M1827 | 1.80×2.70 | 1 | 2 | 4.86 | 9.72 |
| 东向 789.39 | C0921 | 0.90×2.10 | 1~5 | 10 | 1.89 | 18.90 |
| C0921 | 0.90×1.60 | 6 | 2 | 1.44 | 2.88 |
| C1527 | 1.50×2.70 | 1~3 | 14 | 4.05 | 56.70 |
| C1815,C1814 | 1.80×1.10 | 1~2,4 | 3 | 1.98 | 5.94 |
| C1822 | 1.80×1.80 | 1 | 1 | 3.24 | 3.24 |
| C1822 | 1.80×2.20 | 1~2,4~5 | 8 | 3.96 | 31.68 |
| C1822 | 1.80×2.20 | 3 | 2 | 3.96 | 7.92 |
| C1824 | 1.80×2.40 | 1~5 | 12 | 4.32 | 51.84 |
| C1824 | 1.80×2.40 | 4 | 1 | 4.32 | 4.32 |
| C1825 | 1.80×1.10 | 5~6 | 2 | 1.98 | 3.96 |
| C2118 | 2.10×1.80 | 1~5 | 5 | 3.78 | 18.90 |
| C2119 | 2.10×1.90 | 6 | 1 | 3.99 | 3.99 |
| C2522 | 2.50×1.80 | 2~3,5 | 3 | 4.50 | 13.50 |
| C2822 | 2.85×1.80 | 2~5 | 5 | 5.13 | 25.65 |
| C3015,C3014 | 3.00×2.20 | 1~4 | 4 | 6.60 | 26.40 |
| C3025 | 3.00×1.45 | 5 | 1 | 4.35 | 4.35 |
| C3318 | 3.30×1.80 | 1 | 1 | 5.94 | 5.94 |
| C3522 | 3.55×1.80 | 1~5 | 61 | 6.39 | 389.79 |
| C3619 | 3.60×1.90 | 6 | 1 | 6.84 | 6.84 |
| C3622 | 3.60×4.50 | 1 | 3 | 16.20 | 48.60 |
| C3624 | 3.60×2.40 | 2 | 2 | 8.64 | 17.28 |
| C4222 | 4.25×1.80 | 4 | 1 | 7.65 | 7.65 |
| C5434 | 5.40×1.80 | 1 | 1 | 9.72 | 9.72 |
| C7622 | 7.60×1.80 | 3 | 1 | 13.68 | 13.68 |
| 透光门-M1827 | 1.80×2.70 | 1 | 2 | 4.86 | 9.72 |
| 西向 256.41 | C0821 | 1.20×2.40 | 2,4 | 14 | 2.88 | 40.32 |
| C1522 | 1.50×2.20 | 1 | 6 | 3.30 | 19.80 |
| C1527 | 1.50×2.70 | 1,3,5 | 17 | 4.05 | 68.85 |
| C1527 | 1.50×2.70 | 3 | 1 | 4.05 | 4.05 |
| C1815,C1814 | 1.80×1.10 | 1 | 1 | 1.98 | 1.98 |
| C1825 | 1.80×1.10 | 5~6 | 3 | 1.98 | 5.94 |
| C1834 | 1.80×1.10 | 1,3~4 | 3 | 1.98 | 5.94 |
| C3624 | 3.60×2.40 | 1~2 | 7 | 8.64 | 60.48 |
| C4522 | 4.50×2.20 | 1~2 | 2 | 9.90 | 19.80 |
| C5434 | 5.40×1.80 | 1 | 2 | 9.72 | 19.44 |
| C5534 | 5.45×1.80 | 1 | 1 | 9.81 | 9.81 |

# 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 | 立面3 | 0.30 | C1825 | 0.65 | 0.60 |
| 北向 | 立面4 | 0.11 | C3619 | 0.65 | 0.60 |
| 东向 | 立面1 | 0.25 | C0921 | 0.65 | 0.60 |
| 西向 | 立面2 | 0.13 | C1825 | 0.65 | 0.60 |
| 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

## 屋顶相关构造

### 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 |
| 防水层(沥青油毡、油毡纸) | 25 | 0.170 | 3.302 | 1.00 | 0.147 | 0.486 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 挤塑聚苯乙烯泡沫板（XPS）(ρ=30) | 35 | 0.030 | 0.540 | 1.10 | 1.061 | 0.630 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 100 | 1.740 | 17.200 | 1.25 | 0.046 | 0.989 |
| 各层之和∑ | 200 | － | － | － | 1.297 | 2.593 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.69 | | | | | |

### 屋顶防火隔离带构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 聚苯颗粒保温砂浆 | 20 | 0.060 | 0.950 | 1.20 | 0.278 | 0.317 |
| 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 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 280 | － | － | － | 0.460 | 3.031 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 1.61 | | | | | |

## 屋顶平均热工特性

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 构造名称 | 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 |
| 屋顶构造一 | 4536.77 | 0.887 | 0.69 | 2.59 | 0.75 |
| 屋顶防火隔离带构造一 | 578.74 | 0.113 | 1.61 | 3.03 | 0.75 |
| 合计 | 5115.51 | 1.000 | 0.79 | 2.64 | 0.75 |

# 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 |
| 石灰水泥砂浆（混合砂浆） | 20 | 0.870 | 10.750 | 1.00 | 0.023 | 0.247 |
| 粘土多孔砖KP1，KM1-190/240 | 240 | 0.580 | 7.920 | 1.00 | 0.414 | 3.277 |
| 挤塑聚苯板 | 20 | 0.033 | 0.347 | 1.10 | 0.551 | 0.210 |
| 抗裂砂浆（网格布） | 5 | 0.930 | 11.306 | 1.00 | 0.005 | 0.061 |
| 各层之和∑ | 285 | － | － | － | 0.993 | 3.795 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.87 | | | | | |
| 数据来源 | 安徽省公建DB34/T753-2007第92页 | | | | | |

### 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 |
| 石灰水泥砂浆（混合砂浆） | 20 | 0.870 | 10.750 | 1.00 | 0.023 | 0.247 |
| 粘土多孔砖KP1，KM1-190/240 | 240 | 0.580 | 7.920 | 1.00 | 0.414 | 3.277 |
| 挤塑聚苯板 | 20 | 0.033 | 0.347 | 1.10 | 0.551 | 0.210 |
| 抗裂砂浆（网格布） | 5 | 0.930 | 11.306 | 1.00 | 0.005 | 0.061 |
| 各层之和∑ | 285 | － | － | － | 0.993 | 3.795 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.87 | | | | | |
| 数据来源 | 安徽省公建DB34/T753-2007第92页 | | | | | |

### 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 |
| 石灰水泥砂浆（混合砂浆） | 30 | 0.870 | 10.750 | 1.00 | 0.034 | 0.371 |
| 钢筋混凝土 | 200 | 1.740 | 17.200 | 1.25 | 0.092 | 1.977 |
| 挤塑聚苯板 | 30 | 0.033 | 0.347 | 1.10 | 0.826 | 0.315 |
| 抗裂砂浆（网格布） | 5 | 0.930 | 11.306 | 1.00 | 0.005 | 0.061 |
| 各层之和∑ | 265 | － | － | － | 0.958 | 2.724 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.89 | | | | | |
| 数据来源 | 安徽省公建DB34/T753-2007第89页 | | | | | |

## 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 |
| 外墙构造一 | 主墙体 | 1662.85 | 1.000 | 0.87 | 3.80 | 0.75 |
| 考虑线性热桥后K | 0.87 × 1.00 = 0.87 | | | | | |

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 |
| 外墙构造一 | 主墙体 | 2958.08 | 1.000 | 0.87 | 3.80 | 0.75 |
| 考虑线性热桥后K | 0.87 × 1.00 = 0.87 | | | | | |

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 | 2297.84 | 1.000 | 0.87 | 3.80 | 0.75 |
| 考虑线性热桥后K | 0.87 × 1.00 = 0.87 | | | | | |

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 | 1709.19 | 1.000 | 0.87 | 3.80 | 0.75 |
| 考虑线性热桥后K | 0.87 × 1.00 = 0.87 | | | | | |

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 | 8627.97 | 1.000 | 0.87 | 3.80 | 0.75 |
| 考虑线性热桥后K | 0.87 × 1.00 = 0.87 | | | | | |

# 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 | 50 | 1.740 | 17.200 | 1.25 | 0.023 | 0.494 |
| 阻燃聚苯乙烯泡沫板EPS | 40 | 0.050 | 0.430 | 1.00 | 0.800 | 0.344 |
| 抗裂砂浆（网格布） | 5 | 0.930 | 11.306 | 1.00 | 0.005 | 0.061 |
| 各层之和∑ | 115 | － | － | － | 0.850 | 1.144 |
| 传热系数K=1/(0.16+∑R) | 0.99 | | | | | |
| 数据来源 | 安徽省公建DB34/T753-2007第121页 | | | | | |

# 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 | 60系列铝塑共挤平开窗+5~6高透光Low-E玻璃 | 18 | 3.20 | 0.27 | 0.650 | 安徽省公建DB34/T753-2007第61页 |
| 2 | 6mm空气Low-E中空玻璃铝合金窗（上限） | 65 | 4.17 | 0.35 | 1.000 | 安徽省公建DB34/T753-2007第61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 | 平板遮阳0 | 0.500 | 0.000 | 0.600 | 0.300 | 0.000 | 0.100 |

## 平均传热系数

1. 立面1(东向)：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | C0921 | 1~5 | 10 | 1.890 | 18.900 | 18 | 3.200 |
| 2 | C0921 | 6 | 2 | 1.440 | 2.880 | 18 | 3.200 |
| 3 | C1527 | 1~3 | 14 | 4.050 | 56.700 | 18 | 3.200 |
| 4 | C1815,C1814 | 1~2,4 | 3 | 1.980 | 5.940 | 18 | 3.200 |
| 5 | C1822 | 1 | 1 | 3.240 | 3.240 | 18 | 3.200 |
| 6 | C1822 | 1~2,4~5 | 8 | 3.960 | 31.680 | 18 | 3.200 |
| 7 | C1822 | 3 | 2 | 3.960 | 7.920 | 18 | 3.200 |
| 8 | C1824 | 1~5 | 12 | 4.320 | 51.840 | 18 | 3.200 |
| 9 | C1824 | 4 | 1 | 4.320 | 4.320 | 18 | 3.200 |
| 10 | C1825 | 5~6 | 2 | 1.980 | 3.960 | 18 | 3.200 |
| 11 | C2118 | 1~5 | 5 | 3.780 | 18.900 | 18 | 3.200 |
| 12 | C2119 | 6 | 1 | 3.990 | 3.990 | 18 | 3.200 |
| 13 | C2522 | 2~3,5 | 3 | 4.500 | 13.500 | 18 | 3.200 |
| 14 | C2822 | 2~5 | 5 | 5.130 | 25.650 | 18 | 3.200 |
| 15 | C3015,C3014 | 1~4 | 4 | 6.600 | 26.400 | 18 | 3.200 |
| 16 | C3025 | 5 | 1 | 4.350 | 4.350 | 18 | 3.200 |
| 17 | C3318 | 1 | 1 | 5.940 | 5.940 | 18 | 3.200 |
| 18 | C3522 | 1~5 | 61 | 6.390 | 389.790 | 18 | 3.200 |
| 19 | C3619 | 6 | 1 | 6.840 | 6.840 | 18 | 3.200 |
| 20 | C3622 | 1 | 3 | 16.200 | 48.600 | 18 | 3.200 |
| 21 | C3624 | 2 | 2 | 8.640 | 17.280 | 18 | 3.200 |
| 22 | C4222 | 4 | 1 | 7.650 | 7.650 | 18 | 3.200 |
| 23 | C5434 | 1 | 1 | 9.720 | 9.720 | 18 | 3.200 |
| 24 | C7622 | 3 | 1 | 13.680 | 13.680 | 18 | 3.200 |
| 25 | 透光门-M1827 | 1 | 2 | 4.860 | 9.720 | 18 | 3.200 |
| 朝向总面积(㎡) | | | 789.390 | 朝向平均传热系数 | | | 3.200 |

2. 立面2(西向)：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | C0821 | 2,4 | 14 | 2.880 | 40.320 | 18 | 3.200 |
| 2 | C1522 | 1 | 6 | 3.300 | 19.800 | 18 | 3.200 |
| 3 | C1527 | 1,3,5 | 17 | 4.050 | 68.850 | 18 | 3.200 |
| 4 | C1527 | 3 | 1 | 4.050 | 4.050 | 18 | 3.200 |
| 5 | C1815,C1814 | 1 | 1 | 1.980 | 1.980 | 18 | 3.200 |
| 6 | C1825 | 5~6 | 3 | 1.980 | 5.940 | 18 | 3.200 |
| 7 | C1834 | 1,3~4 | 3 | 1.980 | 5.940 | 18 | 3.200 |
| 8 | C3624 | 1~2 | 7 | 8.640 | 60.480 | 18 | 3.200 |
| 9 | C4522 | 1~2 | 2 | 9.900 | 19.800 | 18 | 3.200 |
| 10 | C5434 | 1 | 2 | 9.720 | 19.440 | 18 | 3.200 |
| 11 | C5534 | 1 | 1 | 9.810 | 9.810 | 18 | 3.200 |
| 朝向总面积(㎡) | | | 256.410 | 朝向平均传热系数 | | | 3.200 |

3. 立面3(南向)：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1,3,6 | 3 | 1.620 | 4.860 | 65 | 4.170 |
| 2 |  | 1,3,6 | 3 | 1.800 | 5.400 | 65 | 4.170 |
| 3 |  | 1,3,6 | 3 | 6.600 | 19.800 | 65 | 4.170 |
| 4 | C0912 | 1 | 1 | 1.080 | 1.080 | 18 | 3.200 |
| 5 | C1527 | 1,3,5 | 3 | 4.050 | 12.150 | 18 | 3.200 |
| 6 | C1815,C1814 | 1~3,5 | 4 | 1.980 | 7.920 | 18 | 3.200 |
| 7 | C1815,C1814 | 4 | 1 | 1.980 | 1.980 | 18 | 3.200 |
| 8 | C1822 | 1~5 | 10 | 3.960 | 39.600 | 18 | 3.200 |
| 9 | C1825 | 6 | 1 | 1.980 | 1.980 | 18 | 3.200 |
| 10 | C2112 | 1 | 1 | 2.520 | 2.520 | 18 | 3.200 |
| 11 | C2115 | 1 | 2 | 3.150 | 6.300 | 18 | 3.200 |
| 12 | C2522 | 1~3 | 3 | 4.500 | 13.500 | 18 | 3.200 |
| 13 | C2622 | 1,3 | 2 | 4.680 | 9.360 | 18 | 3.200 |
| 14 | C3322 | 1~3 | 27 | 5.940 | 160.380 | 18 | 3.200 |
| 15 | C3322 | 3 | 1 | 1.980 | 1.980 | 18 | 3.200 |
| 16 | C3322 | 5 | 1 | 7.260 | 7.260 | 18 | 3.200 |
| 17 | C3518 | 5 | 1 | 6.390 | 6.390 | 18 | 3.200 |
| 18 | C3522 | 1~5 | 58 | 6.390 | 370.620 | 18 | 3.200 |
| 19 | C3607 | 1 | 1 | 2.520 | 2.520 | 18 | 3.200 |
| 20 | C3612 | 1 | 1 | 4.320 | 4.320 | 18 | 3.200 |
| 21 | C3622 | 1 | 2 | 7.920 | 15.840 | 18 | 3.200 |
| 22 | C4222 | 3,5 | 2 | 7.650 | 15.300 | 18 | 3.200 |
| 23 | GC2615 | 1 | 1 | 3.900 | 3.900 | 18 | 3.200 |
| 朝向总面积(㎡) | | | 714.960 | 朝向平均传热系数 | | | 3.241 |

4. 立面4(北向)：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 2.520 | 2.520 | 65 | 4.170 |
| 2 |  | 1 | 1 | 1.260 | 1.260 | 65 | 4.170 |
| 3 |  | 1~5 | 5 | 2.415 | 12.075 | 65 | 4.170 |
| 4 |  | 1~5 | 5 | 1.155 | 5.775 | 65 | 4.170 |
| 5 |  | 6 | 1 | 6.900 | 6.900 | 65 | 4.170 |
| 6 |  | 6 | 1 | 3.300 | 3.300 | 65 | 4.170 |
| 7 | C0919 | 6 | 1 | 1.710 | 1.710 | 18 | 3.200 |
| 8 | C1221 | 1~2 | 2 | 2.520 | 5.040 | 18 | 3.200 |
| 9 | C1221 | 2 | 1 | 4.410 | 4.410 | 18 | 3.200 |
| 10 | C1527 | 1~3,5 | 5 | 4.050 | 20.250 | 18 | 3.200 |
| 11 | C1527 | 3 | 1 | 4.050 | 4.050 | 18 | 3.200 |
| 12 | C1825 | 6 | 1 | 1.980 | 1.980 | 18 | 3.200 |
| 13 | C2118 | 1~2 | 2 | 3.780 | 7.560 | 18 | 3.200 |
| 14 | C2419 | 6 | 1 | 4.560 | 4.560 | 18 | 3.200 |
| 15 | C2424 | 2 | 2 | 5.760 | 11.520 | 18 | 3.200 |
| 16 | C2622 | 1 | 1 | 4.680 | 4.680 | 18 | 3.200 |
| 17 | C3022 | 2~3 | 2 | 5.400 | 10.800 | 18 | 3.200 |
| 18 | C3312 | 1 | 1 | 3.960 | 3.960 | 18 | 3.200 |
| 19 | C3321 | 2 | 1 | 6.930 | 6.930 | 18 | 3.200 |
| 20 | C3522 | 1~4 | 23 | 6.390 | 146.970 | 18 | 3.200 |
| 21 | C3607 | 1 | 3 | 2.520 | 7.560 | 18 | 3.200 |
| 22 | C3619 | 6 | 1 | 6.840 | 6.840 | 18 | 3.200 |
| 23 | C3722 | 1,4 | 2 | 6.660 | 13.320 | 18 | 3.200 |
| 24 | C4222 | 2 | 1 | 7.650 | 7.650 | 18 | 3.200 |
| 25 | C4322 | 1~2 | 2 | 9.350 | 18.700 | 18 | 3.200 |
| 26 | C4322 | 2 | 1 | 7.920 | 7.920 | 18 | 3.200 |
| 27 | C5522 | 1 | 1 | 9.900 | 9.900 | 18 | 3.200 |
| 28 | C7322 | 1~2 | 2 | 16.060 | 32.120 | 18 | 3.200 |
| 29 | GC2615 | 1 | 1 | 3.900 | 3.900 | 18 | 3.200 |
| 30 | 透光门-M1827 | 1 | 2 | 4.860 | 9.720 | 18 | 3.200 |
| 朝向总面积(㎡) | | | 383.880 | 朝向平均传热系数 | | | 3.280 |

## 综合太阳得热系数

1. 南向：

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1,3,6 | 3 | 1.620 | 4.860 | 65 | 0.348 |  | 1.000 | 0.348 |
| 2 |  | 1,3,6 | 3 | 1.800 | 5.400 | 65 | 0.348 |  | 1.000 | 0.348 |
| 3 |  | 1,3,6 | 3 | 6.600 | 19.800 | 65 | 0.348 |  | 1.000 | 0.348 |
| 4 | C0912 | 1 | 1 | 1.080 | 1.080 | 18 | 0.270 |  | 1.000 | 0.270 |
| 5 | C1527 | 1,3,5 | 3 | 4.050 | 12.150 | 18 | 0.270 |  | 1.000 | 0.270 |
| 6 | C1815,C1814 | 1~3,5 | 4 | 1.980 | 7.920 | 18 | 0.270 |  | 1.000 | 0.270 |
| 7 | C1815,C1814 | 4 | 1 | 1.980 | 1.980 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 8 | C1822 | 1~5 | 10 | 3.960 | 39.600 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 9 | C1825 | 6 | 1 | 1.980 | 1.980 | 18 | 0.270 |  | 1.000 | 0.270 |
| 10 | C2112 | 1 | 1 | 2.520 | 2.520 | 18 | 0.270 |  | 1.000 | 0.270 |
| 11 | C2115 | 1 | 2 | 3.150 | 6.300 | 18 | 0.270 |  | 1.000 | 0.270 |
| 12 | C2522 | 1~3 | 3 | 4.500 | 13.500 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 13 | C2622 | 1,3 | 2 | 4.680 | 9.360 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 14 | C3322 | 1~3 | 27 | 5.940 | 160.380 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 15 | C3322 | 3 | 1 | 1.980 | 1.980 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 16 | C3322 | 5 | 1 | 7.260 | 7.260 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 17 | C3518 | 5 | 1 | 6.390 | 6.390 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 18 | C3522 | 1~5 | 58 | 6.390 | 370.620 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 19 | C3607 | 1 | 1 | 2.520 | 2.520 | 18 | 0.270 |  | 1.000 | 0.270 |
| 20 | C3612 | 1 | 1 | 4.320 | 4.320 | 18 | 0.270 |  | 1.000 | 0.270 |
| 21 | C3622 | 1 | 2 | 7.920 | 15.840 | 18 | 0.270 |  | 1.000 | 0.270 |
| 22 | C4222 | 3,5 | 2 | 7.650 | 15.300 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 23 | GC2615 | 1 | 1 | 3.900 | 3.900 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 朝向总面积(㎡) | | | | | 714.960 | 综合太阳得热系数 | | | 1.000 | 0.273 |

2. 北向：

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 2.520 | 2.520 | 65 | 0.348 |  | 1.000 | 0.348 |
| 2 |  | 1 | 1 | 1.260 | 1.260 | 65 | 0.348 |  | 1.000 | 0.348 |
| 3 |  | 1~5 | 5 | 2.415 | 12.075 | 65 | 0.348 |  | 1.000 | 0.348 |
| 4 |  | 1~5 | 5 | 1.155 | 5.775 | 65 | 0.348 |  | 1.000 | 0.348 |
| 5 |  | 6 | 1 | 6.900 | 6.900 | 65 | 0.348 |  | 1.000 | 0.348 |
| 6 |  | 6 | 1 | 3.300 | 3.300 | 65 | 0.348 |  | 1.000 | 0.348 |
| 7 | C0919 | 6 | 1 | 1.710 | 1.710 | 18 | 0.270 |  | 1.000 | 0.270 |
| 8 | C1221 | 1~2 | 2 | 2.520 | 5.040 | 18 | 0.270 |  | 1.000 | 0.270 |
| 9 | C1221 | 2 | 1 | 4.410 | 4.410 | 18 | 0.270 |  | 1.000 | 0.270 |
| 10 | C1527 | 1~3,5 | 5 | 4.050 | 20.250 | 18 | 0.270 |  | 1.000 | 0.270 |
| 11 | C1527 | 3 | 1 | 4.050 | 4.050 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 12 | C1825 | 6 | 1 | 1.980 | 1.980 | 18 | 0.270 |  | 1.000 | 0.270 |
| 13 | C2118 | 1~2 | 2 | 3.780 | 7.560 | 18 | 0.270 |  | 1.000 | 0.270 |
| 14 | C2419 | 6 | 1 | 4.560 | 4.560 | 18 | 0.270 |  | 1.000 | 0.270 |
| 15 | C2424 | 2 | 2 | 5.760 | 11.520 | 18 | 0.270 |  | 1.000 | 0.270 |
| 16 | C2622 | 1 | 1 | 4.680 | 4.680 | 18 | 0.270 |  | 1.000 | 0.270 |
| 17 | C3022 | 2~3 | 2 | 5.400 | 10.800 | 18 | 0.270 |  | 1.000 | 0.270 |
| 18 | C3312 | 1 | 1 | 3.960 | 3.960 | 18 | 0.270 |  | 1.000 | 0.270 |
| 19 | C3321 | 2 | 1 | 6.930 | 6.930 | 18 | 0.270 |  | 1.000 | 0.270 |
| 20 | C3522 | 1~4 | 23 | 6.390 | 146.970 | 18 | 0.270 |  | 1.000 | 0.270 |
| 21 | C3607 | 1 | 3 | 2.520 | 7.560 | 18 | 0.270 |  | 1.000 | 0.270 |
| 22 | C3619 | 6 | 1 | 6.840 | 6.840 | 18 | 0.270 |  | 1.000 | 0.270 |
| 23 | C3722 | 1,4 | 2 | 6.660 | 13.320 | 18 | 0.270 |  | 1.000 | 0.270 |
| 24 | C4222 | 2 | 1 | 7.650 | 7.650 | 18 | 0.270 |  | 1.000 | 0.270 |
| 25 | C4322 | 1~2 | 2 | 9.350 | 18.700 | 18 | 0.270 |  | 1.000 | 0.270 |
| 26 | C4322 | 2 | 1 | 7.920 | 7.920 | 18 | 0.270 |  | 1.000 | 0.270 |
| 27 | C5522 | 1 | 1 | 9.900 | 9.900 | 18 | 0.270 |  | 1.000 | 0.270 |
| 28 | C7322 | 1~2 | 2 | 16.060 | 32.120 | 18 | 0.270 |  | 1.000 | 0.270 |
| 29 | GC2615 | 1 | 1 | 3.900 | 3.900 | 18 | 0.270 |  | 1.000 | 0.270 |
| 30 | 透光门-M1827 | 1 | 2 | 4.860 | 9.720 | 18 | 0.270 |  | 1.000 | 0.270 |
| 朝向总面积(㎡) | | | | | 383.880 | 综合太阳得热系数 | | | 1.000 | 0.276 |

3. 东向：

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | C0921 | 1~5 | 10 | 1.890 | 18.900 | 18 | 0.270 |  | 1.000 | 0.270 |
| 2 | C0921 | 6 | 2 | 1.440 | 2.880 | 18 | 0.270 |  | 1.000 | 0.270 |
| 3 | C1527 | 1~3 | 14 | 4.050 | 56.700 | 18 | 0.270 |  | 1.000 | 0.270 |
| 4 | C1815,C1814 | 1~2,4 | 3 | 1.980 | 5.940 | 18 | 0.270 |  | 1.000 | 0.270 |
| 5 | C1822 | 1 | 1 | 3.240 | 3.240 | 18 | 0.270 |  | 1.000 | 0.270 |
| 6 | C1822 | 1~2,4~5 | 8 | 3.960 | 31.680 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 7 | C1822 | 3 | 2 | 3.960 | 7.920 | 18 | 0.270 |  | 1.000 | 0.270 |
| 8 | C1824 | 1~5 | 12 | 4.320 | 51.840 | 18 | 0.270 |  | 1.000 | 0.270 |
| 9 | C1824 | 4 | 1 | 4.320 | 4.320 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 10 | C1825 | 5~6 | 2 | 1.980 | 3.960 | 18 | 0.270 |  | 1.000 | 0.270 |
| 11 | C2118 | 1~5 | 5 | 3.780 | 18.900 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 12 | C2119 | 6 | 1 | 3.990 | 3.990 | 18 | 0.270 |  | 1.000 | 0.270 |
| 13 | C2522 | 2~3,5 | 3 | 4.500 | 13.500 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 14 | C2822 | 2~5 | 5 | 5.130 | 25.650 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 15 | C3015,C3014 | 1~4 | 4 | 6.600 | 26.400 | 18 | 0.270 |  | 1.000 | 0.270 |
| 16 | C3025 | 5 | 1 | 4.350 | 4.350 | 18 | 0.270 |  | 1.000 | 0.270 |
| 17 | C3318 | 1 | 1 | 5.940 | 5.940 | 18 | 0.270 |  | 1.000 | 0.270 |
| 18 | C3522 | 1~5 | 61 | 6.390 | 389.790 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 19 | C3619 | 6 | 1 | 6.840 | 6.840 | 18 | 0.270 |  | 1.000 | 0.270 |
| 20 | C3622 | 1 | 3 | 16.200 | 48.600 | 18 | 0.270 |  | 1.000 | 0.270 |
| 21 | C3624 | 2 | 2 | 8.640 | 17.280 | 18 | 0.270 |  | 1.000 | 0.270 |
| 22 | C4222 | 4 | 1 | 7.650 | 7.650 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 23 | C5434 | 1 | 1 | 9.720 | 9.720 | 18 | 0.270 |  | 1.000 | 0.270 |
| 24 | C7622 | 3 | 1 | 13.680 | 13.680 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 25 | 透光门-M1827 | 1 | 2 | 4.860 | 9.720 | 18 | 0.270 |  | 1.000 | 0.270 |
| 朝向总面积(㎡) | | | | | 789.390 | 综合太阳得热系数 | | | 1.000 | 0.270 |

4. 西向：

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | C0821 | 2,4 | 14 | 2.880 | 40.320 | 18 | 0.270 |  | 1.000 | 0.270 |
| 2 | C1522 | 1 | 6 | 3.300 | 19.800 | 18 | 0.270 |  | 1.000 | 0.270 |
| 3 | C1527 | 1,3,5 | 17 | 4.050 | 68.850 | 18 | 0.270 |  | 1.000 | 0.270 |
| 4 | C1527 | 3 | 1 | 4.050 | 4.050 | 18 | 0.270 | 平板遮阳0 | 1.000 | 0.270 |
| 5 | C1815,C1814 | 1 | 1 | 1.980 | 1.980 | 18 | 0.270 |  | 1.000 | 0.270 |
| 6 | C1825 | 5~6 | 3 | 1.980 | 5.940 | 18 | 0.270 |  | 1.000 | 0.270 |
| 7 | C1834 | 1,3~4 | 3 | 1.980 | 5.940 | 18 | 0.270 |  | 1.000 | 0.270 |
| 8 | C3624 | 1~2 | 7 | 8.640 | 60.480 | 18 | 0.270 |  | 1.000 | 0.270 |
| 9 | C4522 | 1~2 | 2 | 9.900 | 19.800 | 18 | 0.270 |  | 1.000 | 0.270 |
| 10 | C5434 | 1 | 2 | 9.720 | 19.440 | 18 | 0.270 |  | 1.000 | 0.270 |
| 11 | C5534 | 1 | 1 | 9.810 | 9.810 | 18 | 0.270 |  | 1.000 | 0.270 |
| 朝向总面积(㎡) | | | | | 256.410 | 综合太阳得热系数 | | | 1.000 | 0.270 |

## 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 |
| 南向 | 立面3 | 714.96 | 3.24 | 0.27 | 0.30 |
| 北向 | 立面4 | 383.88 | 3.28 | 0.28 | 0.11 |
| 东向 | 立面1 | 789.39 | 3.20 | 0.27 | 0.25 |
| 西向 | 立面2 | 256.41 | 3.20 | 0.27 | 0.13 |
| 综合平均 |  | 2144.64 | 3.23 | 0.27 | 0.20 |

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 |
| 1 | 1010 | 115.51 | | 119.11 | C5522 | 9.90 | 0.80 | 外窗 | 0.80 | 0.07 | 满足 |
| 1022 | 76.45 | | 97.56 | C1815,C1814 | 1.98 | 0.80 | 外窗 | 0.80 | 0.06 | 满足 |
| 未编号 | 2.42 | 0.80 | 幕墙 |
| 未编号 | 1.16 | 0.80 | 幕墙 |
| C1834 | 1.98 | 0.80 | 外窗 |
| 1029 | 56.81 | | 62.79 | C1815,C1814 | 1.98 | 0.80 | 外窗 | 0.80 | 0.03 | 满足 |
| 1030 | 55.92 | | 84.32 | 未编号 | 2.52 | 0.80 | 幕墙 | － | 0.04 | 满足 |
| 未编号 | 1.26 | 0.80 | 幕墙 |
| 1046 | 20.03 | | 43.68 | C1822 | 3.24 | 0.80 | 外窗 | 0.80 | 0.06 | 满足 |
| 1052 | 13.86 | | 32.56 | C0921 | 1.89 | 0.80 | 外窗 | 0.80 | 0.05 | 满足 |
| 2 | 2013 | 76.45 | | 91.13 | 未编号 | 1.16 | 0.80 | 幕墙 | 0.80 | 0.05 | 满足 |
| 未编号 | 2.42 | 0.80 | 幕墙 |
| C1815,C1814 | 1.98 | 0.80 | 外窗 |
| 2036 | 29.42 | | 47.58 | C3022 | 5.40 | 0.80 | 外窗 | 0.80 | 0.09 | 满足 |
| 2041 | 19.89 | | 42.70 | C2522 | 4.50 | 0.80 | 外窗 | 0.80 | 0.08 | 满足 |
| 2044 | 13.86 | | 34.32 | C0921 | 1.89 | 0.80 | 外窗 | 0.80 | 0.04 | 满足 |
| 3 | 3008 | 76.45 | | 97.37 | C1834 | 1.98 | 0.80 | 外窗 | 0.80 | 0.05 | 满足 |
| 未编号 | 1.16 | 0.80 | 幕墙 |
| 未编号 | 2.42 | 0.80 | 幕墙 |
| 3031 | 31.28 | | 49.73 | C3322 | 1.98 | 0.80 | 外窗 | 0.80 | 0.03 | 满足 |
| 3033 | 29.42 | | 47.58 | C3022 | 5.40 | 0.80 | 外窗 | 0.80 | 0.09 | 满足 |
| 3038 | 13.93 | | 34.32 | C0921 | 1.89 | 0.80 | 外窗 | 0.80 | 0.04 | 满足 |
| 4 | 4005 | 76.45 | | 97.37 | 未编号 | 1.16 | 0.80 | 幕墙 | 0.80 | 0.06 | 满足 |
| 未编号 | 2.42 | 0.80 | 幕墙 |
| C1815,C1814 | 1.98 | 0.80 | 外窗 |
| C1834 | 1.98 | 0.80 | 外窗 |
| 4032 | 13.93 | | 34.32 | C0921 | 1.89 | 0.80 | 外窗 | 0.80 | 0.04 | 满足 |
| 5 | 5006 | 76.45 | | 97.37 | 未编号 | 1.16 | 0.80 | 幕墙 | 0.80 | 0.06 | 满足 |
| 未编号 | 2.42 | 0.80 | 幕墙 |
| C1825 | 1.98 | 0.80 | 外窗 |
| C1825 | 1.98 | 0.80 | 外窗 |
| 5030 | 21.76 | | 39.10 | C1822 | 3.96 | 0.80 | 外窗 | 0.80 | 0.08 | 满足 |
| 5031 | 19.78 | | 40.76 | C2522 | 4.50 | 0.80 | 外窗 | 0.80 | 0.09 | 满足 |
| 5032 | 13.87 | | 35.10 | C0921 | 1.89 | 0.80 | 外窗 | 0.80 | 0.04 | 满足 |
| 6 | 6001 | 76.45 | | 126.30 | 未编号 | 6.90 | 0.80 | 幕墙 | 0.80 | 0.09 | 满足 |
| C1825 | 1.98 | 0.80 | 外窗 |
| C1825 | 1.98 | 0.80 | 外窗 |
| 未编号 | 3.30 | 0.80 | 幕墙 |
| 通风换气装置 | | | 无 | | | | | | | | |
| 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 | 非中空玻璃面积(㎡) | 透光面积(㎡) | 非中空面积比 | 限值 | 结论 |
| 南向 | 5.94 | 714.96 | 0.01 | 0.15 | 满足 |
| 北向 | 0.00 | 383.88 | 0.00 | 0.15 | 满足 |
| 东向 | 0.00 | 789.39 | 0.00 | 0.15 | 满足 |
| 西向 | 0.00 | 256.41 | 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 | 7级 C0821 | － |
| 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 | 满足 | － |

# 幕墙气密性

|  |  |
| --- | --- |
| 最不利气密性等级 | 3级 |
| 幕墙气密性措施 |  |
| 通风换气装置 | 无 |
| 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 | 满足 |

# 综合权衡

## 计算条件

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | 设计建筑 | | | 参照建筑 | | |
| 屋顶传热系数K [W/(m2·K)] | | | 0.79(D:2.64) | | | 0.80 | | |
| 外墙（包括非透明幕墙）传热系数K [W/(m2·K)] | | | 0.87(D:3.80) | | | 1.50 | | |
| 屋顶透光部分传热系数  K [W/(m2·K)] | | | － | | | － | | |
| 屋顶透光部分太阳得热系数 | | | － | | | － | | |
| 屋顶透明部分面积与屋顶面积之比 | | | 0.00 | | | 0.00 | | |
| 底面接触室外的架空或外挑楼板传热系数K [W/(m2·K)] | | | 0.99 | | | 0.99 | | |
| 外窗（包括透明幕墙） | 朝向 | 立面 | 窗墙比 | 传热  系数 | 太阳得热系数 | 窗墙比 | 传热  系数 | 太阳得热系数 |
| 南向 | 立面3 | 0.30 | 3.24 | 0.27 | 0.30 | 4.00 | 0.44 |
| 北向 | 立面4 | 0.11 | 3.28 | 0.28 | 0.11 | 5.20 | －－ |
| 东向 | 立面1 | 0.25 | 3.20 | 0.27 | 0.25 | 4.00 | 0.44 |
| 西向 | 立面2 | 0.13 | 3.20 | 0.27 | 0.13 | 5.20 | －－ |
| 室内参数和气象条件设置 | | | 按《公共建筑节能设计标准》附录B设置 | | | | | |

备注：1. — 代表本工程无对应项; 2. ——代表参照建筑不要求，取值同设计建筑。

## 房间类型

### 房间表

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 空调温度 ℃ | 供暖温度 ℃ | 新风量 | 人员密度 | 照明功率 密度 | 电器设备 功率 |
| 办公-其它 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-普通办公室 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-走廊 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 空房间 | － | － | 20(m3/h.人) | 50(㎡/人) | 0(W/㎡) | 0(W/㎡) |

### 作息时间表

详见附录

## 综合权衡

|  |  |  |
| --- | --- | --- |
|  | 设计建筑 | 参照建筑 |
| 全年供暖和空调总耗电量(kWh/㎡) | 13.18 | 13.69 |
| 供冷耗电量(kWh/㎡) | 0.97 | 1.36 |
| 供热耗电量(kWh/㎡) | 12.21 | 12.33 |
| 耗冷量(kWh/㎡) | 2.42 | 3.41 |
| 耗热量(kWh/㎡) | 26.90 | 27.15 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.4.2条 | |
| 标准要求 | 设计建筑的能耗不大于参照建筑的能耗 | |
| 结论 | 满足 | |

# 综合权衡判断结论

|  |  |  |
| --- | --- | --- |
| 序号 | 检查项 | 结论 |
| 1 | 可见光透射比 | 满足 |
| 2 | 有效通风换气面积 | 满足 |
| 3 | 非中空窗面积比 | 满足 |
| 4 | 外窗气密性 | 满足 |
| 5 | 幕墙气密性 | 满足 |
| 6 | 综合权衡 | 满足 |
| 结论 | | 满足 |

■说明：本工程设计建筑的采暖和空气调节能耗不大于参照建筑的采暖和空气调节能耗。权衡判断**满足**《公共建筑节能设计标准》(GB50189-2015)的要求。

# 附录

## 工作日/节假日室内空调温度时间表(℃)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 办公-其它 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| 办公-普通办公室 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| 办公-走廊 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| 空房间 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |

注：上行：工作日；下行：节假日

## 工作日/节假日室内供暖温度时间表(℃)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 办公-其它 | 5 | 5 | 5 | 5 | 5 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 18 | 12 | 5 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 办公-普通办公室 | 5 | 5 | 5 | 5 | 5 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 18 | 12 | 5 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 办公-走廊 | 5 | 5 | 5 | 5 | 5 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 18 | 12 | 5 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 空房间 | 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |

注：上行：工作日；下行：节假日

## 工作日/节假日人员逐时在室率(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 办公-其它 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-普通办公室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-走廊 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |

注：上行：工作日；下行：节假日

## 工作日/节假日照明开关时间表(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 办公-其它 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-普通办公室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-走廊 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 空房间 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |

注：上行：工作日；下行：节假日

## 工作日/节假日设备逐时使用率(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 办公-其它 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 50 | 50 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-普通办公室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 50 | 50 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-走廊 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 50 | 50 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |

注：上行：工作日；下行：节假日

## 工作日/节假日空调系统运行时间表(1:开,0:关)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 系统编号 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 默认 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |

注：上行：工作日；下行：节假日