**建筑能效测评报告书**

公共建筑

|  |  |
| --- | --- |
| 工程名称 | 东南大学道桥实验室改造项目 |
| 工程地点 | 江苏-南京 |
| 设计编号 | 10001 |
| 建设单位 | 东南大学 |
| 设计单位 | 东南大学 |
| 设 计 人 | 王昊睿 |
| 审 核 人 |  |
| 审 定 人 |  |
| 设计日期 | 2020年12月28日 |



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| 采用软件 | 能耗计算BESI2020 |
| 软件版本 | 20190808 |
| 研发单位 | 北京绿建软件有限公司 |
| 正版授权码 | T15651976157 |

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# 建筑概况

|  |  |
| --- | --- |
| 工程名称 | 东南大学道桥实验室改造项目 |
| 工程地点 | 江苏-南京 |
| 地理位置 | 北纬：32.04° | 东经：118.78° |
| 建筑面积(m2) | 地上5732 地下0 |
| 建筑层数 | 地上6 地下0 |
| 建筑高度（m） | 地上21.2 地下0.0 |
| 建筑体积(m3) | 24183.74 |
| 建筑外表面积(m2) | 6164.47 |
| 北向角度 | 90 |
| 结构类型 | 砖混结构 |
| 外墙太阳辐射吸收系数 | 0.50 |
| 屋顶太阳辐射吸收系数 | 0.50 |

|  |  |  |
| --- | --- | --- |
|  | 标识建筑 | 比对建筑 |
| 屋顶传热系数K [W/(m2·K)] | 0.32(不含反射隔热外饰面附加热阻)(D:4.66) | 0.50 |
| 外墙（包括非透明幕墙）传热系数K [W/(m2·K)] | 0.55(不含反射隔热外饰面附加热阻)(D:2.83) | 0.80 |
| 屋顶透明部分传热系数K [W/(m2·K)] | － | － |
| 屋顶透明部分太阳得热系数 | － | － |
| 底面接触室外的架空或外挑楼板传热系数K [W/(m2·K)] | 0.65 | 0.70 |
| 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 | 南-默认立面 | 0.35 | 1.90 | 0.14 | 0.35 | 2.60 | 0.40 |
| 北向 | 北-默认立面 | 0.39 | 1.90 | 0.14 | 0.39 | 2.60 | 0.44 |
| 东向 | 东-默认立面 | 0.17 | 1.90 | 0.14 | 0.17 | 3.50 | －－ |
| 西向 | 西-默认立面 | 0.18 | 1.90 | 0.14 | 0.18 | 3.50 | －－ |

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。

# 测评依据

1. 《建筑能效标识技术标准》(JGJ/T 288-2012)

2. 《公共建筑节能设计标准》(GB50189-2015)

3. 《民用建筑热工设计规范》(GB50176)

# 模型观察



# 围护结构

## 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 | 11.306 | 1800.0 | 1050.0 | 0.0110 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 石灰砂浆 | 0.810 | 9.948 | 1600.0 | 1050.0 | 0.0243 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 钢筋混凝土 | 1.040 | 13.189 | 2500.0 | 920.0 | 0.0108 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 界面砂浆 | 0.200 | 0.763 | 200.0 | 200.0 | 0.0088 |  |
| ALC加气混凝土砌块(墙体) | 0.200 | 3.600 | 500.0 | 1782.1 | 0.0075 | 用于墙体修正系数=1.35； |
| 柔性耐水腻子，涂料 | 0.200 | 0.763 | 200.0 | 200.0 | 0.0088 |  |
| 抗裂砂浆，耐碱网格布 | 0.200 | 0.763 | 200.0 | 200.0 | 0.0094 |  |
| 水泥砂浆（1） | 0.930 | 11.310 | 1800.0 | 1050.8 | 0.0088 | 修正系数=1.00； |
| 钢筋混凝土（1） | 1.040 | 13.189 | 2500.0 | 920.0 | 0.0015 | 修正系数=1.00； |
| 橡木、枫树（热流方向顺木纹） | 0.350 | 6.690 | 700.0 | 2512.0 | 0.0044 | 摘自《民用建筑热工设计规范GB50176-93》附录四； |
| 粉刷石膏保温砂浆 | 0.085 | 4.000 | 500.0 | 5176.8 | 0.0078 | 适用于内保温；用于墙体修正系数=1.25； |
| 水泥基无机矿物轻集料保温砂浆 | 0.085 | 1.800 | 450.0 | 1164.8 | 0.0099 | 适用于内保温；用于墙体修正系数=1.25； |
| 钢筋混凝土（2） | 1.040 | 13.189 | 2500.0 | 920.0 | 0.0088 | 修正系数=1.00； |
| 水泥砂浆（3） | 0.930 | 11.310 | 1800.0 | 1050.8 | 0.0087 | 修正系数=1.00； |
| 聚氨酯(屋面保温) | 0.024 | 0.540 | 35.0 | 4773.6 | 0.0088 | 用于屋面修正系数=1.35；燃烧性能为B2级； |
| 粘土陶粒混凝土(ρ=1400) | 0.700 | 8.650 | 1400.0 | 1049.9 | 0.0093 | 修正系数=1.00； |
| 混凝土砌块内填膨胀珍珠岩(单排孔) | 0.230 | 1.068 | 1300.0 | 52.5 | 0.0079 |  |
| 橡木、枫树（热流方向顺木纹）（1） | 0.350 | 6.690 | 700.0 | 2512.0 | 0.0000 | 摘自《民用建筑热工设计规范GB50176-93》附录四； |
| 水泥砂浆（4） | 0.930 | 11.310 | 1800.0 | 1050.8 | 0.0000 | 修正系数=1.00； |
| 钢筋混凝土（3） | 1.740 | 17.060 | 2500.0 | 920.0 | 0.0000 | 修正系数=1.00； |
| 粉刷石膏保温砂浆（1） | 0.085 | 4.000 | 500.0 | 5176.8 | 0.0000 | 适用于内保温；用于墙体修正系数=1.25； |

## 围护结构作法简要说明

**1. 屋顶构造：**屋顶构造一：（由上到下）

钢筋混凝土（2）20mm＋水泥砂浆（3）20mm＋聚氨酯(屋面保温)90mm＋水泥砂浆（3）20mm＋粘土陶粒混凝土(ρ=1400)30mm＋钢筋混凝土（2）120mm

**2. 外墙构造：**外墙构造一：（由外到内）

混凝土砌块内填膨胀珍珠岩(单排孔)240mm＋界面砂浆2mm＋水泥基无机矿物轻集料保温砂浆80mm＋抗裂砂浆，耐碱网格布2mm＋柔性耐水腻子，涂料2mm

**3. 挑空楼板构造：**挑空楼板构造一：（由上到下）

橡木、枫树（热流方向顺木纹）20mm＋水泥砂浆（1）20mm＋钢筋混凝土（1）120mm＋粉刷石膏保温砂浆127mm

**4. 外窗：**5透明+1温控变色膜+5透明+6氩气+5超白+6氩气+5超白：

传热系数1.900W/m^2.K，太阳得热系数0.218

**5. 幕墙：**5透明+1温控变色膜+5透明+6氩气+5超白+6氩气+5超白：

传热系数1.900W/m^2.K，太阳得热系数0.218

## 体形系数

|  |  |
| --- | --- |
| 外表面积 | 6164.47 |
| 建筑体积 | 24183.74 |
| 体形系数 | 0.25 |

## 窗墙比

### 窗墙比

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗面积(㎡) | 墙面积(㎡) | 窗墙比 |
| 南向 | 南-默认立面 | 478.84 | 1363.12 | 0.35 |
| 北向 | 北-默认立面 | 476.63 | 1232.65 | 0.39 |
| 东向 | 东-默认立面 | 161.92 | 945.39 | 0.17 |
| 西向 | 西-默认立面 | 173.67 | 953.28 | 0.18 |

### 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478.84 | C0615 | 0.66×1.50 | 5 | 1 | 0.99 | 0.99 |
| C0618 | 0.66×1.80 | 4 | 1 | 1.19 | 1.19 |
| C0836 | 0.86×3.60 | 2 | 1 | 3.10 | 3.10 |
| C0930 | 0.90×3.00 | 5 | 1 | 2.70 | 2.70 |
| C0936 | 0.90×3.60 | 2,4 | 2 | 3.24 | 6.48 |
| C0936 | 0.90×3.60 | 3 | 1 | 3.24 | 3.24 |
| C0937 | 0.90×3.75 | 6 | 1 | 3.38 | 3.38 |
| C1015 | 1.00×1.50 | 1 | 3 | 1.50 | 4.50 |
| C1036 | 1.00×3.60 | 2 | 1 | 3.60 | 3.60 |
| C1333 | 1.40×3.30 | 1 | 1 | 4.62 | 4.62 |
| C1336 | 1.34×3.60 | 1~2,4 | 3 | 4.82 | 14.47 |
| C1336 | 1.35×3.60 | 3 | 1 | 4.85 | 4.85 |
| C13415 | 13.42×1.50 | 5 | 1 | 20.13 | 20.13 |
| C13421 | 13.47×2.10 | 2~3 | 2 | 28.28 | 56.57 |
| C13421 | 13.42×2.10 | 4 | 1 | 28.18 | 28.18 |
| C1530 | 1.59×3.00 | 5 | 1 | 4.78 | 4.78 |
| C1533 | 1.58×3.30 | 1 | 1 | 5.20 | 5.20 |
| C1736 | 1.77×3.60 | 2 | 1 | 6.38 | 6.38 |
| C1818 | 1.80×1.80 | 2~4 | 9 | 3.24 | 29.16 |
| C1824 | 1.80×2.40 | 5 | 3 | 4.32 | 12.96 |
| C3612 | 3.60×1.20 | 4 | 16 | 4.32 | 69.12 |
| C3621 | 3.60×2.10 | 3 | 3 | 7.56 | 22.68 |
| C3627 | 3.60×2.70 | 2 | 3 | 9.72 | 29.16 |
| C3630 | 3.60×3.00 | 1~2 | 8 | 10.80 | 86.40 |
| MQ6550 | 8.23×3.60 | 1 | 1 | 29.63 | 29.63 |
| MQ6550 | 1.60×3.60 | 1 | 1 | 5.76 | 5.76 |
| MQ6550 | 5.45×3.60 | 1 | 1 | 19.62 | 19.62 |
| 北向 | 北-默认立面476.63 | C0430 | 0.45×3.00 | 1 | 1 | 1.35 | 1.35 |
| C0430 | 0.46×3.00 | 1 | 1 | 1.37 | 1.37 |
| C0530 | 0.50×3.00 | 1 | 2 | 1.50 | 3.00 |
| C0730 | 0.75×3.00 | 5 | 1 | 2.25 | 2.25 |
| C0736 | 0.75×3.60 | 1~4 | 4 | 2.70 | 10.80 |
| C0836 | 0.90×3.60 | 3~4 | 2 | 3.24 | 6.48 |
| C0930 | 0.90×3.00 | 5 | 1 | 2.70 | 2.70 |
| C0936 | 0.90×3.60 | 1~2 | 2 | 3.24 | 6.48 |
| C0937 | 0.90×3.75 | 6 | 1 | 3.38 | 3.38 |
| C1119 | 1.20×1.90 | 1 | 1 | 2.28 | 2.28 |
| C1219 | 1.20×1.90 | 1~2 | 3 | 2.28 | 6.84 |
| C1718 | 1.77×1.80 | 1 | 2 | 3.19 | 6.37 |
| C1818 | 1.80×1.80 | 1~4 | 4 | 3.24 | 12.96 |
| C2018 | 2.00×1.80 | 1~4 | 10 | 3.60 | 36.00 |
| C3015 | 3.00×1.50 | 5 | 2 | 4.50 | 9.00 |
| C3612 | 3.60×1.20 | 4 | 16 | 4.32 | 69.12 |
| C3615 | 3.60×1.50 | 5 | 2 | 5.40 | 10.80 |
| C3621 | 3.60×2.10 | 3 | 2 | 7.56 | 15.12 |
| C3627 | 3.60×2.70 | 2~3 | 4 | 9.72 | 38.88 |
| C3630 | 3.60×3.00 | 1~2 | 9 | 10.80 | 97.20 |
| C4819 | 4.80×1.90 | 1~2 | 2 | 9.12 | 18.24 |
| MQ6550 | 1.08×3.60 | 1 | 1 | 3.87 | 3.87 |
| MQ6550 | 1.00×0.70 | 1 | 1 | 0.70 | 0.70 |
| MQ6550 | 5.85×3.60 | 1 | 1 | 21.06 | 21.06 |
| MQ6550 | 6.54×3.60 | 2~4 | 3 | 23.53 | 70.58 |
| MQ6550 | 6.60×3.00 | 5 | 1 | 19.80 | 19.80 |
| 东向 | 东-默认立面161.92 | C0536 | 0.60×3.60 | 2 | 1 | 2.16 | 2.16 |
| C0630 | 0.60×3.00 | 5 | 1 | 1.80 | 1.80 |
| C0636 | 0.60×3.60 | 1,3~4 | 3 | 2.16 | 6.48 |
| C0811 | 0.85×1.10 | 1 | 2 | 0.94 | 1.87 |
| C1715 | 1.71×1.50 | 1 | 1 | 2.57 | 2.57 |
| C1818 | 1.80×1.80 | 1~4 | 27 | 3.24 | 87.48 |
| C3230 | 3.23×3.00 | 1 | 1 | 9.70 | 9.70 |
| C3415 | 3.45×1.50 | 5 | 2 | 5.18 | 10.35 |
| C3615 | 3.60×1.50 | 5 | 5 | 5.40 | 27.00 |
| C3812 | 3.84×1.20 | 6 | 1 | 4.61 | 4.61 |
| C3812 | 3.81×1.20 | 6 | 1 | 4.57 | 4.57 |
| MQ6550 | 0.63×3.60 | 1 | 1 | 2.27 | 2.27 |
| MQ6550 | 1.00×0.70 | 1 | 1 | 0.70 | 0.70 |
| MQ6550 | 0.10×3.60 | 1 | 1 | 0.36 | 0.36 |
| 西向 | 西-默认立面173.67 | C1415 | 1.46×1.50 | 5 | 1 | 2.19 | 2.19 |
| C1421 | 1.48×2.10 | 2~3 | 2 | 3.11 | 6.22 |
| C1421 | 1.46×2.10 | 4 | 1 | 3.07 | 3.07 |
| C2015 | 2.04×1.50 | 5 | 1 | 3.06 | 3.06 |
| C2018 | 2.04×1.80 | 4 | 1 | 3.67 | 3.67 |
| C2730 | 2.70×3.00 | 1 | 1 | 8.10 | 8.10 |
| C2815 | 2.87×1.50 | 1 | 1 | 4.30 | 4.30 |
| C3018 | 3.00×1.80 | 2 | 1 | 5.40 | 5.40 |
| C3812 | 3.81×1.20 | 6 | 1 | 4.57 | 4.57 |
| C3812 | 3.81×1.20 | 6 | 1 | 4.57 | 4.57 |
| C4018 | 4.00×1.80 | 3~4 | 2 | 7.20 | 14.40 |
| C5430 | 5.40×3.00 | 5 | 1 | 16.20 | 16.20 |
| MQ6550 | 5.93×3.60 | 1 | 1 | 21.35 | 21.35 |
| MQ6550 | 4.50×3.60 | 1 | 1 | 16.20 | 16.20 |
| MQ6550 | 0.44×3.60 | 2 | 1 | 1.58 | 1.58 |
| MQ6550 | 1.00×0.70 | 2 | 1 | 0.70 | 0.70 |
| MQ6550 | 4.44×3.60 | 2 | 1 | 15.98 | 15.98 |
| MQ6550 | 5.82×3.60 | 3 | 1 | 20.93 | 20.93 |
| MQ6550 | 5.88×3.60 | 4 | 1 | 21.17 | 21.17 |

## 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 | 0.35 | C0937 | 0.71 | 0.60 |
| 北向 | 北-默认立面 | 0.39 | C0937 | 0.71 | 0.60 |
| 东向 | 东-默认立面 | 0.17 | C3812 | 0.71 | 0.60 |
| 西向 | 西-默认立面 | 0.18 | C3812 | 0.71 | 0.60 |

## 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 |
| 钢筋混凝土（2） | 20 | 1.040 | 13.189 | 1.00 | 0.019 | 0.254 |
| 水泥砂浆（3） | 20 | 0.930 | 11.310 | 1.00 | 0.022 | 0.243 |
| 聚氨酯(屋面保温) | 90 | 0.024 | 0.540 | 1.35 | 2.778 | 2.025 |
| 水泥砂浆（3） | 20 | 0.930 | 11.310 | 1.00 | 0.022 | 0.243 |
| 粘土陶粒混凝土(ρ=1400) | 30 | 0.700 | 8.650 | 1.00 | 0.043 | 0.371 |
| 钢筋混凝土（2） | 120 | 1.040 | 13.189 | 1.00 | 0.115 | 1.522 |
| 各层之和∑ | 300 | － | － | － | 2.998 | 4.658 |
| 外表面太阳辐射吸收系数 | 0.50 |
| 传热系数K=1/(0.16+∑R) | 0.32 |
| 反射隔热涂料附加热阻R | 0.63 |
| 采用反射隔热涂料后K | 0.26 |

## 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 |
| 混凝土砌块内填膨胀珍珠岩(单排孔) | 240 | 0.230 | 1.068 | 1.00 | 1.043 | 1.114 |
| 界面砂浆 | 2 | 0.200 | 0.763 | 1.00 | 0.010 | 0.008 |
| 水泥基无机矿物轻集料保温砂浆 | 80 | 0.085 | 1.800 | 1.00 | 0.941 | 1.694 |
| 抗裂砂浆，耐碱网格布 | 2 | 0.200 | 0.763 | 1.00 | 0.010 | 0.008 |
| 柔性耐水腻子，涂料 | 2 | 0.200 | 0.763 | 1.00 | 0.010 | 0.008 |
| 各层之和∑ | 326 | － | － | － | 2.015 | 2.831 |
| 外表面太阳辐射吸收系数 | 0.50 |
| 传热系数K=1/(0.16+∑R) | 0.46 |
| 反射隔热涂料附加热阻R | 0.25 |
| 采用反射隔热涂料后K | 0.41 |

### 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KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 866.99 | 1.000 | 0.41 | 2.83 | 0.50 |
| 考虑线性热桥后K | 0.41 × 1.20 = 0.50 |

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 | 735.19 | 1.000 | 0.41 | 2.83 | 0.50 |
| 考虑线性热桥后K | 0.41 × 1.20 = 0.50 |

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 | 773.36 | 1.000 | 0.41 | 2.83 | 0.50 |
| 考虑线性热桥后K | 0.41 × 1.20 = 0.50 |

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 | 745.36 | 1.000 | 0.41 | 2.83 | 0.50 |
| 考虑线性热桥后K | 0.41 × 1.20 = 0.50 |

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 | 3120.90 | 1.000 | 0.41 | 2.83 | 0.50 |
| 考虑线性热桥后K | 0.41 × 1.20 = 0.50 |

## 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 |
| 橡木、枫树（热流方向顺木纹） | 20 | 0.350 | 6.690 | 1.00 | 0.057 | 0.382 |
| 水泥砂浆（1） | 20 | 0.930 | 11.310 | 1.00 | 0.022 | 0.243 |
| 钢筋混凝土（1） | 120 | 1.040 | 13.189 | 1.00 | 0.115 | 1.522 |
| 粉刷石膏保温砂浆 | 127 | 0.085 | 4.000 | 1.25 | 1.195 | 5.976 |
| 各层之和∑ | 287 | － | － | － | 1.389 | 8.124 |
| 传热系数K=1/(0.16+∑R) | 0.65 |

## 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 | 5透明+1温控变色膜+5透明+6氩气+5超白+6氩气+5超白 | 18 | 1.90 | 0.22 | 0.710 | 可见光透射比=0.71变色前，SC全变色后 |
| 2 | 5透明+1温控变色膜+5透明+6氩气+5超白+6氩气+5超白 | 65 | 1.90 | 0.22 | 0.710 | 可见光透射比=0.71变色前，SC全变色后 |

### 外遮阳类型

#### 自定义遮阳

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 编号 | 夏季遮阳系数 | 冬季遮阳系数 | 平均遮阳系数 | 备注 |
| 1 | 活动遮阳0 | 0.750 | 0.500 | 0.625 |  |

### 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 | C0615 | 5 | 1 | 0.990 | 0.990 | 18 | 1.900 |
| 2 | C0618 | 4 | 1 | 1.188 | 1.188 | 18 | 1.900 |
| 3 | C0836 | 2 | 1 | 3.096 | 3.096 | 18 | 1.900 |
| 4 | C0930 | 5 | 1 | 2.700 | 2.700 | 18 | 1.900 |
| 5 | C0936 | 2,4 | 2 | 3.240 | 6.480 | 18 | 1.900 |
| 6 | C0936 | 3 | 1 | 3.241 | 3.241 | 18 | 1.900 |
| 7 | C0937 | 6 | 1 | 3.375 | 3.375 | 18 | 1.900 |
| 8 | C1015 | 1 | 3 | 1.500 | 4.500 | 18 | 1.900 |
| 9 | C1036 | 2 | 1 | 3.600 | 3.600 | 18 | 1.900 |
| 10 | C1333 | 1 | 1 | 4.619 | 4.619 | 18 | 1.900 |
| 11 | C1336 | 1~2,4 | 3 | 4.824 | 14.472 | 18 | 1.900 |
| 12 | C1336 | 3 | 1 | 4.853 | 4.853 | 18 | 1.900 |
| 13 | C13415 | 5 | 1 | 20.129 | 20.129 | 18 | 1.900 |
| 14 | C13421 | 2~3 | 2 | 28.283 | 56.566 | 18 | 1.900 |
| 15 | C13421 | 4 | 1 | 28.180 | 28.180 | 18 | 1.900 |
| 16 | C1530 | 5 | 1 | 4.780 | 4.780 | 18 | 1.900 |
| 17 | C1533 | 1 | 1 | 5.204 | 5.204 | 18 | 1.900 |
| 18 | C1736 | 2 | 1 | 6.379 | 6.379 | 18 | 1.900 |
| 19 | C1818 | 2~4 | 9 | 3.240 | 29.160 | 18 | 1.900 |
| 20 | C1824 | 5 | 3 | 4.320 | 12.960 | 18 | 1.900 |
| 21 | C3612 | 4 | 16 | 4.320 | 69.120 | 18 | 1.900 |
| 22 | C3621 | 3 | 3 | 7.560 | 22.680 | 18 | 1.900 |
| 23 | C3627 | 2 | 3 | 9.720 | 29.160 | 18 | 1.900 |
| 24 | C3630 | 1~2 | 8 | 10.800 | 86.400 | 18 | 1.900 |
| 25 | MQ6550 | 1 | 1 | 29.628 | 29.628 | 65 | 1.900 |
| 26 | MQ6550 | 1 | 1 | 5.762 | 5.762 | 65 | 1.900 |
| 27 | MQ6550 | 1 | 1 | 19.618 | 19.618 | 65 | 1.900 |
| 立面总面积(㎡) | 478.838 | 立面平均传热系数 | 1.900 |

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 | C0430 | 1 | 1 | 1.353 | 1.353 | 18 | 1.900 |
| 2 | C0430 | 1 | 1 | 1.374 | 1.374 | 18 | 1.900 |
| 3 | C0530 | 1 | 2 | 1.500 | 3.000 | 18 | 1.900 |
| 4 | C0730 | 5 | 1 | 2.250 | 2.250 | 18 | 1.900 |
| 5 | C0736 | 1~4 | 4 | 2.700 | 10.800 | 18 | 1.900 |
| 6 | C0836 | 3~4 | 2 | 3.239 | 6.478 | 18 | 1.900 |
| 7 | C0930 | 5 | 1 | 2.700 | 2.700 | 18 | 1.900 |
| 8 | C0936 | 1~2 | 2 | 3.240 | 6.480 | 18 | 1.900 |
| 9 | C0937 | 6 | 1 | 3.375 | 3.375 | 18 | 1.900 |
| 10 | C1119 | 1 | 1 | 2.280 | 2.280 | 18 | 1.900 |
| 11 | C1219 | 1~2 | 3 | 2.280 | 6.840 | 18 | 1.900 |
| 12 | C1718 | 1 | 2 | 3.187 | 6.374 | 18 | 1.900 |
| 13 | C1818 | 1~4 | 4 | 3.240 | 12.960 | 18 | 1.900 |
| 14 | C2018 | 1~4 | 10 | 3.600 | 36.000 | 18 | 1.900 |
| 15 | C3015 | 5 | 2 | 4.500 | 9.000 | 18 | 1.900 |
| 16 | C3612 | 4 | 16 | 4.320 | 69.120 | 18 | 1.900 |
| 17 | C3615 | 5 | 2 | 5.400 | 10.800 | 18 | 1.900 |
| 18 | C3621 | 3 | 2 | 7.560 | 15.120 | 18 | 1.900 |
| 19 | C3627 | 2~3 | 4 | 9.720 | 38.880 | 18 | 1.900 |
| 20 | C3630 | 1~2 | 9 | 10.800 | 97.200 | 18 | 1.900 |
| 21 | C4819 | 1~2 | 2 | 9.120 | 18.240 | 18 | 1.900 |
| 22 | MQ6550 | 1 | 1 | 3.870 | 3.870 | 65 | 1.900 |
| 23 | MQ6550 | 1 | 1 | 0.700 | 0.700 | 65 | 1.900 |
| 24 | MQ6550 | 1 | 1 | 21.060 | 21.060 | 65 | 1.900 |
| 25 | MQ6550 | 2~4 | 3 | 23.526 | 70.578 | 65 | 1.900 |
| 26 | MQ6550 | 5 | 1 | 19.801 | 19.801 | 65 | 1.900 |
| 立面总面积(㎡) | 476.632 | 立面平均传热系数 | 1.900 |

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 | C0536 | 2 | 1 | 2.160 | 2.160 | 18 | 1.900 |
| 2 | C0630 | 5 | 1 | 1.800 | 1.800 | 18 | 1.900 |
| 3 | C0636 | 1,3~4 | 3 | 2.160 | 6.480 | 18 | 1.900 |
| 4 | C0811 | 1 | 2 | 0.935 | 1.870 | 18 | 1.900 |
| 5 | C1715 | 1 | 1 | 2.571 | 2.571 | 18 | 1.900 |
| 6 | C1818 | 1~4 | 27 | 3.240 | 87.480 | 18 | 1.900 |
| 7 | C3230 | 1 | 1 | 9.704 | 9.704 | 18 | 1.900 |
| 8 | C3415 | 5 | 2 | 5.175 | 10.350 | 18 | 1.900 |
| 9 | C3615 | 5 | 5 | 5.400 | 27.000 | 18 | 1.900 |
| 10 | C3812 | 6 | 1 | 4.606 | 4.606 | 18 | 1.900 |
| 11 | C3812 | 6 | 1 | 4.574 | 4.574 | 18 | 1.900 |
| 12 | MQ6550 | 1 | 1 | 2.268 | 2.268 | 65 | 1.900 |
| 13 | MQ6550 | 1 | 1 | 0.700 | 0.700 | 65 | 1.900 |
| 14 | MQ6550 | 1 | 1 | 0.360 | 0.360 | 65 | 1.900 |
| 立面总面积(㎡) | 161.923 | 立面平均传热系数 | 1.900 |

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 | C1415 | 5 | 1 | 2.190 | 2.190 | 18 | 1.900 |
| 2 | C1421 | 2~3 | 2 | 3.108 | 6.216 | 18 | 1.900 |
| 3 | C1421 | 4 | 1 | 3.066 | 3.066 | 18 | 1.900 |
| 4 | C2015 | 5 | 1 | 3.060 | 3.060 | 18 | 1.900 |
| 5 | C2018 | 4 | 1 | 3.672 | 3.672 | 18 | 1.900 |
| 6 | C2730 | 1 | 1 | 8.100 | 8.100 | 18 | 1.900 |
| 7 | C2815 | 1 | 1 | 4.302 | 4.302 | 18 | 1.900 |
| 8 | C3018 | 2 | 1 | 5.400 | 5.400 | 18 | 1.900 |
| 9 | C3812 | 6 | 1 | 4.574 | 4.574 | 18 | 1.900 |
| 10 | C3812 | 6 | 1 | 4.573 | 4.573 | 18 | 1.900 |
| 11 | C4018 | 3~4 | 2 | 7.200 | 14.400 | 18 | 1.900 |
| 12 | C5430 | 5 | 1 | 16.200 | 16.200 | 18 | 1.900 |
| 13 | MQ6550 | 1 | 1 | 21.348 | 21.348 | 65 | 1.900 |
| 14 | MQ6550 | 1 | 1 | 16.200 | 16.200 | 65 | 1.900 |
| 15 | MQ6550 | 2 | 1 | 1.584 | 1.584 | 65 | 1.900 |
| 16 | MQ6550 | 2 | 1 | 0.700 | 0.700 | 65 | 1.900 |
| 17 | MQ6550 | 2 | 1 | 15.984 | 15.984 | 65 | 1.900 |
| 18 | MQ6550 | 3 | 1 | 20.934 | 20.934 | 65 | 1.900 |
| 19 | MQ6550 | 4 | 1 | 21.168 | 21.168 | 65 | 1.900 |
| 立面总面积(㎡) | 173.672 | 立面平均传热系数 | 1.900 |

### 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 | C0615 | 5 | 1 | 0.990 | 0.990 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 2 | C0618 | 4 | 1 | 1.188 | 1.188 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 3 | C0836 | 2 | 1 | 3.096 | 3.096 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 4 | C0930 | 5 | 1 | 2.700 | 2.700 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 5 | C0936 | 2,4 | 2 | 3.240 | 6.480 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 6 | C0936 | 3 | 1 | 3.241 | 3.241 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 7 | C0937 | 6 | 1 | 3.375 | 3.375 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 8 | C1015 | 1 | 3 | 1.500 | 4.500 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 9 | C1036 | 2 | 1 | 3.600 | 3.600 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 10 | C1333 | 1 | 1 | 4.619 | 4.619 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 11 | C1336 | 1~2,4 | 3 | 4.824 | 14.472 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 12 | C1336 | 3 | 1 | 4.853 | 4.853 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 13 | C13415 | 5 | 1 | 20.129 | 20.129 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 14 | C13421 | 2~3 | 2 | 28.283 | 56.566 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 15 | C13421 | 4 | 1 | 28.180 | 28.180 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 16 | C1530 | 5 | 1 | 4.780 | 4.780 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 17 | C1533 | 1 | 1 | 5.204 | 5.204 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 18 | C1736 | 2 | 1 | 6.379 | 6.379 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 19 | C1818 | 2~4 | 9 | 3.240 | 29.160 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 20 | C1824 | 5 | 3 | 4.320 | 12.960 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 21 | C3612 | 4 | 16 | 4.320 | 69.120 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 22 | C3621 | 3 | 3 | 7.560 | 22.680 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 23 | C3627 | 2 | 3 | 9.720 | 29.160 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 24 | C3630 | 1~2 | 8 | 10.800 | 86.400 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 25 | MQ6550 | 1 | 1 | 29.628 | 29.628 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 26 | MQ6550 | 1 | 1 | 5.762 | 5.762 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 27 | MQ6550 | 1 | 1 | 19.618 | 19.618 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 立面总面积(㎡) | 478.838 | 综合太阳得热系数 | 0.625 | 0.136 |

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 | C0430 | 1 | 1 | 1.353 | 1.353 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 2 | C0430 | 1 | 1 | 1.374 | 1.374 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 3 | C0530 | 1 | 2 | 1.500 | 3.000 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 4 | C0730 | 5 | 1 | 2.250 | 2.250 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 5 | C0736 | 1~4 | 4 | 2.700 | 10.800 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 6 | C0836 | 3~4 | 2 | 3.239 | 6.478 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 7 | C0930 | 5 | 1 | 2.700 | 2.700 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 8 | C0936 | 1~2 | 2 | 3.240 | 6.480 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 9 | C0937 | 6 | 1 | 3.375 | 3.375 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 10 | C1119 | 1 | 1 | 2.280 | 2.280 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 11 | C1219 | 1~2 | 3 | 2.280 | 6.840 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 12 | C1718 | 1 | 2 | 3.187 | 6.374 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 13 | C1818 | 1~4 | 4 | 3.240 | 12.960 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 14 | C2018 | 1~4 | 10 | 3.600 | 36.000 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 15 | C3015 | 5 | 2 | 4.500 | 9.000 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 16 | C3612 | 4 | 16 | 4.320 | 69.120 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 17 | C3615 | 5 | 2 | 5.400 | 10.800 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 18 | C3621 | 3 | 2 | 7.560 | 15.120 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 19 | C3627 | 2~3 | 4 | 9.720 | 38.880 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 20 | C3630 | 1~2 | 9 | 10.800 | 97.200 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 21 | C4819 | 1~2 | 2 | 9.120 | 18.240 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 22 | MQ6550 | 1 | 1 | 3.870 | 3.870 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 23 | MQ6550 | 1 | 1 | 0.700 | 0.700 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 24 | MQ6550 | 1 | 1 | 21.060 | 21.060 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 25 | MQ6550 | 2~4 | 3 | 23.526 | 70.578 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 26 | MQ6550 | 5 | 1 | 19.801 | 19.801 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 立面总面积(㎡) | 476.632 | 综合太阳得热系数 | 0.625 | 0.136 |

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 | C0536 | 2 | 1 | 2.160 | 2.160 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 2 | C0630 | 5 | 1 | 1.800 | 1.800 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 3 | C0636 | 1,3~4 | 3 | 2.160 | 6.480 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 4 | C0811 | 1 | 2 | 0.935 | 1.870 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 5 | C1715 | 1 | 1 | 2.571 | 2.571 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 6 | C1818 | 1~4 | 27 | 3.240 | 87.480 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 7 | C3230 | 1 | 1 | 9.704 | 9.704 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 8 | C3415 | 5 | 2 | 5.175 | 10.350 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 9 | C3615 | 5 | 5 | 5.400 | 27.000 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 10 | C3812 | 6 | 1 | 4.606 | 4.606 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 11 | C3812 | 6 | 1 | 4.574 | 4.574 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 12 | MQ6550 | 1 | 1 | 2.268 | 2.268 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 13 | MQ6550 | 1 | 1 | 0.700 | 0.700 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 14 | MQ6550 | 1 | 1 | 0.360 | 0.360 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 立面总面积(㎡) | 161.923 | 综合太阳得热系数 | 0.625 | 0.136 |

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 | C1415 | 5 | 1 | 2.190 | 2.190 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 2 | C1421 | 2~3 | 2 | 3.108 | 6.216 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 3 | C1421 | 4 | 1 | 3.066 | 3.066 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 4 | C2015 | 5 | 1 | 3.060 | 3.060 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 5 | C2018 | 4 | 1 | 3.672 | 3.672 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 6 | C2730 | 1 | 1 | 8.100 | 8.100 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 7 | C2815 | 1 | 1 | 4.302 | 4.302 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 8 | C3018 | 2 | 1 | 5.400 | 5.400 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 9 | C3812 | 6 | 1 | 4.574 | 4.574 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 10 | C3812 | 6 | 1 | 4.573 | 4.573 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 11 | C4018 | 3~4 | 2 | 7.200 | 14.400 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 12 | C5430 | 5 | 1 | 16.200 | 16.200 | 18 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 13 | MQ6550 | 1 | 1 | 21.348 | 21.348 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 14 | MQ6550 | 1 | 1 | 16.200 | 16.200 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 15 | MQ6550 | 2 | 1 | 1.584 | 1.584 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 16 | MQ6550 | 2 | 1 | 0.700 | 0.700 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 17 | MQ6550 | 2 | 1 | 15.984 | 15.984 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 18 | MQ6550 | 3 | 1 | 20.934 | 20.934 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 19 | MQ6550 | 4 | 1 | 21.168 | 21.168 | 65 | 0.218 | 活动遮阳0 | 0.625 | 0.136 |
| 立面总面积(㎡) | 173.672 | 综合太阳得热系数 | 0.625 | 0.136 |

### 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 | 南-默认立面 | 478.84 | 1.90 | 0.14 | 0.35 |
| 北向 | 北-默认立面 | 476.63 | 1.90 | 0.14 | 0.39 |
| 东向 | 东-默认立面 | 161.92 | 1.90 | 0.14 | 0.17 |
| 西向 | 西-默认立面 | 173.67 | 1.90 | 0.14 | 0.18 |
| 综合平均 |  | 1291.07 | 1.90 | 0.14 | 0.29 |

注：本表所统计的外窗包含凸窗。

# 标识建筑

## 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-会议室 | 26 | 18 | 14(m3/h.人) | 2.5(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 办公-实验室 | 26 | 18 | 30(m3/h.人) | 10(㎡/人) | 20(W/㎡) | 50(W/㎡) |
| 办公-实验室上部空间 | － | － | 30(m3/h.人) | 0(人) | 0(W/㎡) | 0(W/㎡) |
| 办公-普通办公室 | 26 | 18 | 30(m3/h.人) | 8(㎡/人) | 7(W/㎡) | 15(W/㎡) |
| 办公-智慧教室 | 26 | 18 | 20(m3/h.人) | 4(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 办公-硕博工作室 | 26 | 18 | 30(m3/h.人) | 3(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 办公-走廊 | 28 | 15 | 20(m3/h.人) | 50(㎡/人) | 4(W/㎡) | 15(W/㎡) |

### 作息时间表

详见附录

## 系统类型

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 系统编号 | 系统类型 | 供冷能效比 | 供热能效比 | 面积(㎡) | 包含的房间 |
| 默认 | 双管制风机盘管 | － | － | 4232.52 | 所有房间 |

## 制冷系统

### 冷水机组

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 名称 | 类型 | 额定耗电量(kW) | 额定制冷量(kW) | 额定性能系数(COP) | 台数 |
| 土壤源热泵 | 热泵机组 | 100 | 500 | 5.00 | 1 |

### 水泵系统

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 类型 | 轴功率(kW) | 扬程(m) | 供回水温差(°C) | 设计工作点效率(%) | 台数 |
| 冷却水泵 | 10 | 25 | 5 | 80 | 1 |
| 冷冻水泵 | 8 | 30 | 5 | 80 | 1 |

### 运行工况

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 负荷率(%) | 机组制冷量(kW) | 机组功率(kW) | 性能系数(COP) | 冷却水泵功率(kW) | 冷冻水泵功率(kW) | 冷却塔功率(kW) |
| 25 | 125 | 30 | 4.17 | 10 | 8 | － |
| 50 | 250 | 55 | 4.55 | 10 | 8 | － |
| 75 | 375 | 75 | 5.00 | 10 | 8 | － |
| 100 | 500 | 100 | 5.00 | 10 | 8 | － |

### 制冷能耗

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 负荷区间(%) | 区间负荷(kWh) | 运行时长(h) | 性能系数(COP) | 制冷机组(kWh) | 冷却水泵(kWh) | 冷冻水泵(kWh) | 冷却塔(kWh) |
| 0~25 | 490 | 17 | 4.17 | 118 | 170 | 136 | － |
| 25~50 | 9601 | 46 | 4.55 | 2112 | 460 | 368 | － |
| 50~75 | 41620 | 133 | 5.00 | 8324 | 1330 | 1064 | － |
| 75~100 | 43657 | 104 | 5.00 | 8731 | 1040 | 832 | － |
| >100 | 0 | 0 | － | 0 | 0 | 0 | － |
| 合计 | 95367 | 300 |  | 19285 | 3000 | 2400 | － |

## 供暖系统

### 热泵系统

#### 热泵机组

|  |  |  |  |
| --- | --- | --- | --- |
| 名称 | 额定制热量(kW) | 额定性能系数 COP | 台数 |
| 土壤源热泵 | 700 | 4.50 | 1 |

#### 热水循环泵

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 类型 | 轴功率(kW) | 扬程(m) | 供回水温差(°C) | 设计工作点效率(%) | 台数 |
| 单速 | 8 | 30 | 15 | 80 | 1 |

#### 运行工况

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 负荷率(%) | 机组制热量(kW) | 机组功率(kW) | 性能系数(COP) | 供暖水泵功率(kW) |
| 25 | 175 | 31.25 | 5.60 | 8 |
| 50 | 350 | 62.5 | 5.60 | 8 |
| 75 | 525 | 93.75 | 5.60 | 8 |
| 100 | 700 | 125 | 5.60 | 8 |

#### 制热能耗

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 负荷区间(%) | 区间负荷(kWh) | 运行时长(h) | 性能系数(COP) | 热泵机组(kWh) | 供暖水泵(kWh) |
| 0~25 | 23174 | 233 | 5.60 | 4138 | 1864 |
| 25~50 | 26886 | 112 | 5.60 | 4801 | 896 |
| 50~75 | 9249 | 23 | 5.60 | 1652 | 184 |
| 75~100 | 2336 | 4 | 5.60 | 417 | 32 |
| >100 | 0 | 0 | － | 0 | 0 |
| 合计 | 61644 | 372 |  | 11008 | 2976 |

## 照明

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 房间类型 | 单位面积电耗(kWh/㎡) | 房间个数 | 房间合计面积(㎡) | 合计电耗(kWh) |
| 办公-会议室 | 10.16 | 7 | 277 | 2812 |
| 办公-实验室 | 25.40 | 28 | 1662 | 42222 |
| 办公-实验室上部空间 | 0.00 | 5 | 2597 | 0 |
| 办公-普通办公室 | 8.89 | 24 | 446 | 3969 |
| 办公-智慧教室 | 14.29 | 2 | 155 | 2209 |
| 办公-硕博工作室 | 10.16 | 8 | 581 | 5907 |
| 办公-走廊 | 7.14 | 49 | 1514 | 10819 |
| 总计 | 67939 |

# 比对建筑

## 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-会议室 | 26 | 18 | 14(m3/h.人) | 2.5(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-实验室 | 26 | 18 | 30(m3/h.人) | 10(㎡/人) | 25(W/㎡) | 50(W/㎡) |
| 办公-实验室上部空间 | － | － | 30(m3/h.人) | 0(人) | 0(W/㎡) | 0(W/㎡) |
| 办公-普通办公室 | 26 | 20 | 30(m3/h.人) | 8(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-智慧教室 | 26 | 18 | 20(m3/h.人) | 4(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-硕博工作室 | 26 | 18 | 30(m3/h.人) | 3(㎡/人) | 10(W/㎡) | 15(W/㎡) |
| 办公-走廊 | 26 | 16 | 20(m3/h.人) | 50(㎡/人) | 5(W/㎡) | 15(W/㎡) |

### 作息时间表

同标识建筑

## 系统类型

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 系统编号 | 系统类型 | 供冷能效比 | 供热能效比 | 面积(㎡) | 包含的房间 |
| 默认 | 双管制风机盘管 | － | － | 4232.52 | 同标识建筑 |

## 制冷系统

### 冷水机组

#### 机组选型

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 名称 | 类型 | 额定耗电量(kW) | 额定制冷量(kW) | 额定性能系数(COP) | 台数 |
| 土壤源热泵 | 水冷-螺杆式冷水机组 | 129 | 551 | 4.28 | 1 |

#### 机组能耗

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 负荷率(%) | 机组制冷量(kW) | 性能系数COP | 区间负荷(kWh) | 机组电耗(kWh) |
| 25 | 138 | 4.23 | 483 | 114 |
| 50 | 276 | 5.12 | 13332 | 2604 |
| 75 | 413 | 4.65 | 41419 | 8907 |
| 100 | 551 | 4.28 | 49092 | 11470 |
| 合计 | 4.52 | 104326 | 23096 |

### 冷却水泵

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 负荷率(%) | 台数 | 区间时长(h) | 输送能效比ERe | 最大冷负荷(kW) | 水泵电耗(kWh) |
| 25 | 1 | 18 | 0.0214 | 551 | 4390 |
| 50 | 1 | 58 |
| 75 | 1 | 120 |
| 100 | 1 | 106 |

### 冷冻水泵

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 负荷率(%) | 台数 | 区间时长(h) | 输送能效比ER0 | 最大冷负荷(kW) | 水泵电耗(kWh) |
| 25 | 1 | 18 | 0.0241 | 551 | 4011 |
| 50 | 1 | 58 |
| 75 | 1 | 120 |
| 100 | 1 | 106 |

## 供暖系统

### 热水锅炉能耗

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 燃料类型 | 容量/峰值负荷(MW) | 台数 | 锅炉热效率 | 外网热输送效率 | 累计热负荷(kWh) | 热/电系数(kWh/kWh) | 折合电耗(kWh) |
| 烟煤II | 0.65 | 1 | 0.73 | 0.92 | 66539 | 2.93 | 33809 |

### 热水循环水泵能耗

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 负荷率(%) | 开启台数 | 区间时长(h) | 输送能效比EHR0 | 最大热负荷(kWh) | 供暖水泵电耗(kWh) |
| 25 | 1 | 196 | 0.00433 | 654 | 1053 |
| 50 | 1 | 136 |
| 75 | 1 | 33 |
| 100 | 1 | 7 |

## 照明

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 房间类型 | 单位面积电耗(kWh/㎡) | 房间个数 | 房间合计面积(㎡) | 合计电耗(kWh) |
| 办公-会议室 | 11.43 | 7 | 277 | 3163 |
| 办公-实验室 | 31.75 | 28 | 1662 | 52778 |
| 办公-实验室上部空间 | 0.00 | 5 | 2597 | 0 |
| 办公-普通办公室 | 11.43 | 24 | 446 | 5104 |
| 办公-智慧教室 | 16.07 | 2 | 155 | 2485 |
| 办公-硕博工作室 | 12.70 | 8 | 581 | 7384 |
| 办公-走廊 | 8.93 | 49 | 1514 | 13524 |
| 总计 | 84438 |

# 计算结果

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 能耗分类 | 能耗子类 | 标识建筑(kWh/㎡) | 比对建筑(kWh/㎡) | 基础建筑(kWh/㎡) | 比对节能率（%） | 基础节能率（%） |
| 建筑负荷 | 耗冷量 | 16.64 | 18.20 | 52.00 | 8.59% | 68.01% |
| 耗热量 | 10.75 | 11.61 | 33.17 | 7.36% | 67.57% |
| 冷热合计 | 27.39 | 29.81 | 85.17 | 8.11% | 67.84% |
| 供冷电耗 | 中央冷源 | 3.36 | 4.03 | 11.51 | 21.62% | 72.57% |
| 冷却水泵 | 0.52 | 0.77 | 2.19 |
| 冷冻水泵 | 0.42 | 0.70 | 2.00 |
| 多联机/单元式空调 | 0.00 | 0.00 | 0.00 |
| 供冷合计 | 4.31 | 5.49 | 15.70 |
| 供暖电耗 | 中央热源 | 1.92 | 5.90 | 16.85 | 59.89% | 85.96% |
| 供暖水泵 | 0.52 | 0.18 | 0.52 |
| 多联机/单元式热泵 | 0.00 | 0.00 | 0.00 |
| 供暖合计 | 2.44 | 6.08 | 17.38 |
| 采暖空调电耗 | 6.75 | 11.58 | 33.08 | 41.73% | 79.60% |
| 照明电耗 | 11.85 | 14.73 | 42.09 | 19.54% | 71.84% |
| 合计电耗 | 18.60 | 26.31 | 75.17 | 29.30% | 75.26% |





# 附录

暑假:7.15~8.25; 寒假：1.15~3.1

## 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-会议室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 100 | 100 | 100 | 30 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-实验室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 100 | 100 | 100 | 30 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-实验室上部空间 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 100 | 100 | 100 | 30 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 45 | 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 | 100 | 100 | 100 | 30 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 办公-智慧教室 | 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-硕博工作室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 100 | 100 | 100 | 30 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 45 | 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 |

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-会议室 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 36 | 62 | 56 | 54 | 43 | 53 | 55 | 58 | 67 | 40 | 18 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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-实验室 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 36 | 62 | 56 | 54 | 43 | 53 | 55 | 58 | 67 | 40 | 18 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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-实验室上部空间 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 36 | 62 | 56 | 54 | 43 | 53 | 55 | 58 | 67 | 40 | 18 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 36 | 62 | 56 | 54 | 43 | 53 | 55 | 58 | 67 | 40 | 18 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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-智慧教室 | 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-硕博工作室 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 36 | 62 | 56 | 54 | 43 | 53 | 55 | 58 | 67 | 40 | 18 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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 |

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-会议室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 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-实验室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 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-实验室上部空间 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 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 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 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-智慧教室 | 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-硕博工作室 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 20 | 10 | 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 |

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)

采暖期：

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | 0 |

供冷期：

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | 0 |

注：上行：工作日；下行：节假日