建筑能效测评报告书

公共建筑

|  |  |
| --- | --- |
| 工程名称 | 小洲村活动中心 |
| 工程地点 | 广东-广州 |
| 设计编号 |  |
| 建设单位 |  |
| 设计单位 |  |
| 设 计 人 |  |
| 审 核 人 |  |
| 审 定 人 |  |
| 设计日期 | 2024 年 1 月 4 日 |



|  |  |
| --- | --- |
| 采用软件 | 能耗计算 BESI2023 |
| 软件版本 | 20220808 |
| 研发单位 | 北京绿建软件股份有限公司 |
| 正版授权码 | T17708473286 |

目 录

**1** .建筑概况 [**4**](#bookmark1)

**2** .测评依据 [**4**](#bookmark2)

**3** .软件介绍 [**4**](#bookmark3)

**4** .气象数据 [**5**](#bookmark4)

4. 1 气象地点 [5](#bookmark5)

4.2 逐日干球温度表 [5](#bookmark6)

4.3 逐月辐照量表 [5](#bookmark7)

4.4 峰值工况 [5](#bookmark8)

**5** . 围护结构 [**6**](#bookmark9)

5. 1 工程材料 [6](#bookmark10)

5.2 围护结构作法简要说明 [6](#bookmark11)

**6** . 围护结构概况 [**7**](#bookmark12)

**7** .标识建筑 [**7**](#bookmark13)

7. 1 房间类型 [7](#bookmark14)

7. 1. 1 房间表 [7](#bookmark15)

7. 1.2 作息时间表 [8](#bookmark16)

7.2 系统类型 [8](#bookmark17)

7.2. 1 系统分区 [8](#bookmark18)

7.2.2 热回收参数 [8](#bookmark19)

7.3 制冷系统 [8](#bookmark20)

7.3. 1 多联机/单元式空调能耗 [8](#bookmark21)

7.4 供暖系统 [8](#bookmark22)

7.4. 1 多联机/单元式热泵能耗 [8](#bookmark23)

7.5 照明 [8](#bookmark24)

**8** . 比对建筑 [**9**](#bookmark25)

8. 1 房间类型 [9](#bookmark26)

8. 1. 1 房间表 [9](#bookmark27)

8. 1.2 作息时间表 [9](#bookmark28)

8.2 系统类型 [9](#bookmark29)

8.2. 1 系统分区 [9](#bookmark30)

8.3 制冷系统 [9](#bookmark31)

8.3. 1 冷水机组 [9](#bookmark32)

8.3.2 冷却水泵 [1](#bookmark33)0

8.3.3 冷冻水泵 [1](#bookmark34)0

8.4 供暖系统 [1](#bookmark35)0

8.4. 1 热水锅炉能耗 [1](#bookmark36)0

8.4.2 热水循环水泵能耗 [1](#bookmark37)0

8.5 照明 [1](#bookmark38)0

**9** .计算结果 [**1**](#bookmark39)**1**

**10** 附录 [**1**](#bookmark40)**5**

10. 1 工作日/节假日人员逐时在室率(%) [1](#bookmark41)5

10.2 工作日/节假日照明开关时间表(%) [1](#bookmark42)5

10.3 工作日/节假日设备逐时使用率(%) [1](#bookmark43)6

10.4 工作日/节假日空调系统运行时间表(1:开,0:关) [1](#bookmark44)6

**1** 建筑概况

|  |  |
| --- | --- |
| 工程名称 | 小洲村活动中心 |
| 工程地点 | 广东-广州 |
| 地理位置 | 北纬：23.08 ° | 东经：113.14 ° |
| 建筑面积(m2) | 地上 4370 地下 0 |
| 建筑层数 | 地上 2 地下 0 |
| 建筑高度（m） | 地上 13.9 地下 0.0 |
| 建筑体积(m3) | 27357.06 |
| 建筑外表面积(m2) | 6061.41 |
| 北向角度 | 90 |
| 结构类型 |  |
| 外墙太阳辐射吸收系数 | 0.75 |
| 屋顶太阳辐射吸收系数 | 0.75 |
| 控温期 | 供冷期:7.14-9.30,供暖期:12.1- 1.28 |

**2** 测评依据

1. 《建筑能效标识技术标准》(JGJ/T 288-2012)

2. 《广东省公共建筑节能设计标准》DBJ 15-51-2020

3. 《公共建筑节能设计标准》GB50189-2015

4. 《民用建筑热工设计规范》GB50176

5. 《建筑外门窗气密，水密，抗风压性能分级及检测方法》GB/T 7106

6. 《建筑幕墙》GB/T 21086-2007

**3** 软件介绍

本报告内容由能耗计算 BESI2023 计算并输出，能耗计算 BESI 以 CAD 为平台，内置 DOE2 内 核，可与建筑节能模型无缝对接，精准快速得到动态理想负荷，完美支持从《建筑能效标识技术标 准》到《绿色建筑评价标准》要求的节能率，以及建筑全能耗的计算；软件充分考虑工程实际需求， 从冷热源、输配水泵到末端风机，覆盖了常见暖通设备的能耗计算；并支持灵活的采暖供冷期、系

统划分、运行策略设置等功能以及强大的结果数据分析。

**4** 气象数据

4.1 气象地点

广东-广州, 《中国建筑热环境分析专用气象数据集》

4.2 逐日干球温度表



4.3 逐月辐照量表



4.4 峰值工况

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 气象数据 | 时刻 | 干球温度(℃) | 湿球温度(℃) | 含湿量(g/kg) | 焓值(kj/kg) |
| 最热 | 08 月 30 日 14 时 | 36.7 | 28.3 | 21.5 | 92.1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 最冷 | 02 月 01 日 03 时 | 4.4 | 4.4 | 5.0 | 17.0 |

**5** 围护结构

5.1 工程材料

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 | 导热系数 λ | 蓄热系数 S | 密度 ρ | 比热容Cp | 蒸汽渗透系 数 u | 备注 |
| W/(m.K) | W/(㎡.K) | kg/m3 | J/(kg.K) | g/(m.h.kPa) |
| 水泥砂浆 | 0.930 | 11.370 | 1800.0 | 1050.0 | 0.0210 | 来源：《民用建筑 热工设计规范》GB50176-2016 |
| 石灰砂浆 | 0.810 | 10.070 | 1600.0 | 1050.0 | 0.0443 | 来源：《民用建筑 热工设计规范》GB50176-2016 |
| 钢筋混凝土 | 1.740 | 17.200 | 2500.0 | 920.0 | 0.0158 | 来源：《民用建筑 热工设计规范》GB50176-2016 |
| 碎石、卵石混凝土(ρ=2300) | 1.510 | 15.360 | 2300.0 | 920.0 | 0.0173 | 来源：《民用建筑 热工设计规范》GB50176-2016 |
| 挤塑聚苯乙烯泡沫塑料 （带表皮） | 0.030 | 0.340 | 35.0 | 1380.0 | 0.0000 | 来源：《民用建筑 热工设计规范》GB50176-2016，蒸汽渗透系数没有 给出 |
| 加气混凝土、泡沫混凝 土(ρ=700) | 0.180 | 3.100 | 700.0 | 1050.0 | 0.0998 | 来源：《民用建筑 热工设计规范》GB50176-2016 |
| 混凝土多孔砖(190 六孔 砖） | 0.750 | 7.490 | 1450.0 | 709.4 | 0.0000 |  |

5.2 围护结构作法简要说明

**1.** 屋顶构造：屋顶构造一：（由上到下）

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

200mm＋石灰砂浆 20mm

**3.** 外窗构造：12A 钢铝单框双玻窗（平均）：

传热系数 3.900W/m^2.K ，太阳得热系数 0.652

**6** 围护结构概况

|  |  |  |
| --- | --- | --- |
|  | 标识建筑 | 比对建筑 |
| 屋顶传热系数 K [W/(m2 ·K)] | 0.77(D:3.69) | 0.70 |
| 外墙（包括非透明幕墙）传热系数 K [W/(m2 ·K)] | 1.33(D:2.94) | 1.50 |
| 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)] | - | - |
| 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 | 0.41 | 3.90 | 0.61 | 0.41 | 2.70 | 0.35 |
| 北向 | 北-默认立面 | 0.33 | 3.90 | 0.65 | 0.33 | 3.00 | 0.40 |
| 东向 | 东-默认立面 | 0.20 | 3.90 | 0.65 | 0.20 | 5.20 | 0.40 |
| 西向 | 西-默认立面 | 0.27 | 3.90 | 0.65 | 0.27 | 4.00 | 0.40 |

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。

**7** 标识建筑

7.1 房间类型

7.1.1 房间表

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 空调 温度℃ | 供暖 温度℃ | 新风量 | 渗透风 换气次数 | 人员密度 | 照明功率 密度 | 电器设备 功率 |
| 办公-普通办公 室 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 8(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-走廊 | 26 | 16 | 20(m3/h.人) | 0(次/h) | 50(㎡/人) | 5(W/㎡) | 15(W/㎡) |
| 办公-高级办公 室 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 8(㎡/人) | 15(W/㎡) | 15(W/㎡) |
| 商场-一般商店 | 26 | 20 | 19(m3/h.人) | 0(次/h) | 4(㎡/人) | 10(W/㎡) | 13(W/㎡) |
| 宾馆-3 星级餐 厅 | 25 | 22 | 20(m3/h.人) | 0(次/h) | 2.5(㎡/人) | 13(W/㎡) | 5(W/㎡) |
| 宾馆-走廊 | 26 | 18 | 0(m3/h.人) | 0(次/h) | 50(㎡/人) | 5(W/㎡) | 15(W/㎡) |
| 空房间 | - | - | 20(m3/h.人) | 0(次/h) | 50(㎡/人) | 0(W/㎡) | 0(W/㎡) |

7.1.2 作息时间表

详见附录

7.2 系统类型

7.2.1 系统分区

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 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 | 单元式房间空调器 | 6.00 | 3.00 | 3193.47 | 所有房间 |

7.2.2 热回收参数

|  |  |  |  |
| --- | --- | --- | --- |
| 系统编号 | 热回收 | 供冷 | 供暖 |
| 回收效率 | 启动温(焓)差 | 回收效率 | 启动温(焓)差 |
| 默认 | 无 |  |  |  |  |

7.3 制冷系统

7.3.1 多联机/单元式空调能耗

|  |  |  |  |
| --- | --- | --- | --- |
| 系统 | 能效比 | 耗冷量(kWh) | 耗电量(kWh) |
| 默认 | 6.00 | 209878 | 34980 |

7.4 供暖系统

7.4.1 多联机/单元式热泵能耗

|  |  |  |  |
| --- | --- | --- | --- |
| 系统 | 能效比 | 耗热量(kWh) | 耗电量(kWh) |
| 默认 | 3.00 | 3609 | 1203 |

7.5 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-普通办公室 | 15.12 | 6 | 704 | 10647 |
| 办公-走廊 | 11.81 | 4 | 1293 | 15277 |
| 办公-高级办公室 | 25.20 | 1 | 527 | 13268 |
| 商场-一般商店 | 40.15 | 1 | 115 | 4635 |
| 宾馆-3 星级餐厅 | 43.65 | 2 | 507 | 22125 |
| 宾馆-走廊 | 16.79 | 8 | 163 | 2734 |
| 空房间 | 0.00 | 3 | 940 | 0 |
| 总计 | 68687 |

**8** 比对建筑

8.1 房间类型

8.1.1 房间表

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 空调 温度℃ | 供暖 温度℃ | 新风量 | 渗透风 换气次数 | 人员密度 | 照明功率 密度 | 电器设备 功率 |
| 办公-普通办公 室 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 8(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-走廊 | 26 | 16 | 20(m3/h.人) | 0(次/h) | 50(㎡/人) | 5(W/㎡) | 15(W/㎡) |
| 办公-高级办公 室 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 8(㎡/人) | 15(W/㎡) | 15(W/㎡) |
| 商场-一般商店 | 26 | 20 | 19(m3/h.人) | 0(次/h) | 4(㎡/人) | 10(W/㎡) | 13(W/㎡) |
| 宾馆-3 星级餐 厅 | 25 | 22 | 20(m3/h.人) | 0(次/h) | 2.5(㎡/人) | 13(W/㎡) | 5(W/㎡) |
| 宾馆-走廊 | 26 | 18 | 0(m3/h.人) | 0(次/h) | 50(㎡/人) | 5(W/㎡) | 15(W/㎡) |
| 空房间 | - | - | 20(m3/h.人) | 0(次/h) | 50(㎡/人) | 0(W/㎡) | 0(W/㎡) |

8.1.2 作息时间表

同标识建筑

8.2 系统类型

8.2.1 系统分区

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 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 | - | - | 3193.47 | 同标识建筑 |

8.3 制冷系统

8.3.1 冷水机组

[**8.3.1.1**](8.3.1.1)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 |
| 水冷-螺杆式冷 水机组 | 水冷-螺杆式冷水机组 | 119 | 490 | 4.11 | 1 |

[**8.3.1.2**](8.3.1.2)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 | 122 | 4.26 | 1517 | 356 |
| 50 | 245 | 4.77 | 23547 | 4936 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 75 | 367 | 4.21 | 144855 | 34407 |
| 100 | 490 | 4.11 | 20821 | 5066 |
| 合计 | 4.26 | 190739 | 44765 |

8.3.2 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 | 14 | 0.0214 | 490 | 8606 |
| 50 | 1 | 113 |
| 75 | 1 | 480 |
| 100 | 1 | 53 |

8.3.3 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 | 14 | 0.0241 | 490 | 7792 |
| 50 | 1 | 113 |
| 75 | 1 | 480 |
| 100 | 1 | 53 |

8.4 供暖系统

8.4.1 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 | 0.21 | 1 | 0.73 | 0.92 | 5902 | 2.93 | 2999 |

8.4.2 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 | 287 | 0.00865 | 206 | 560 |
| 50 | 1 | 21 |
| 75 | 1 | 5 |
| 100 | 1 | 1 |

8.5 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-普通办公室 | 15.12 | 6 | 704 | 10647 |
| 办公-走廊 | 11.81 | 4 | 1293 | 15277 |
| 办公-高级办公室 | 25.20 | 1 | 527 | 13268 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 商场-一般商店 | 40.15 | 1 | 115 | 4635 |
| 宾馆-3 星级餐厅 | 43.65 | 2 | 507 | 22125 |
| 宾馆-走廊 | 16.79 | 8 | 163 | 2734 |
| 空房间 | 0.00 | 3 | 940 | 0 |
| 总计 | 68687 |

**9** 计算结果

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 能耗分类 | 能耗子类 | 标识建筑 (kWh/㎡) | 比对建筑 (kWh/㎡) | 比对节能率（%） | 基础建筑 (kWh/㎡) | 基础节能率（%） |
| 建筑负荷 | 耗冷量 | 48.02 | 43.65 | - 10.03% |  |  |
| 耗热量 | 0.83 | 1.35 | 38.85% |  |  |
| 冷热合计 | 48.85 | 45.00 | -8.57% |  |  |
| 供冷电耗 | 中央冷源 | 0.00 | 10.24 | 42.81% |  |  |
| 冷却水泵 | 0.00 | 1.97 |
| 冷冻水泵 | 0.00 | 1.78 |
| 多联机/单元式空调 | 8.00 | 0.00 |
| 供冷合计 | 8.00 | 14.00 |
| 供暖电耗 | 中央热源 | 0.00 | 0.69 | 66.20% |  |  |
| 供暖水泵 | 0.00 | 0.13 |
| 多联机/单元式热泵 | 0.28 | 0.00 |
| 供暖合计 | 0.28 | 0.81 |
| 采暖空调电耗 | 8.28 | 14.81 | 44. 10% |  |  |
| 照明电耗 | 15.72 | 15.72 | 0.00% |  |  |
| 合计电耗 | 24.00 | 30.53 | 21.39% | 87.22 | 72.49% |







**10** 附录

10.1 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-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-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 |
| 办公-高级办公室 | 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 |
| 商场-一般商店 | 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 |
| 宾馆-3 星级餐厅 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 宾馆-走廊 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 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

10.2 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-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-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 |
| 办公-高级办公室 | 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 |
| 商场-一般商店 | 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 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 宾馆-3 星级餐厅 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 宾馆-走廊 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 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

10.3 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-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-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 |
| 办公-高级办公室 | 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 |
| 商场-一般商店 | 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 |
| 宾馆-3 星级餐厅 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 宾馆-走廊 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 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

10.4 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