**建筑全能耗报告书**

公共建筑

|  |  |
| --- | --- |
| 工程名称 | 流廊——原合钢五厂场域更新 |
| 工程地点 | 安徽-合肥 |
| 设计编号 | YB30101 |
| 建设单位 | 安徽 |
| 设计单位 | 安徽 |
| 设 计 人 |  |
| 审 核 人 |  |
| 审 定 人 |  |
| 设计日期 | 2021年3月10日 |



|  |  |
| --- | --- |
| 采用软件 | 能耗计算BESI2020 |
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| 研发单位 | 北京绿建软件有限公司 |
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# 建筑概况

|  |  |  |
| --- | --- | --- |
| 工程名称 | 流廊——原合钢五厂场域更新 | |
| 工程地点 | 安徽-合肥 | |
| 地理位置 | 北纬：32.00° | 东经：117.23° |
| 建筑面积(m2) | 地上22880 地下0 | |
| 建筑层数 | 地上5 地下0 | |
| 建筑高度（m） | 地上24.8 地下0.0 | |
| 建筑体积(m3) | 124044.69 | |
| 建筑外表面积(m2) | 23463.30 | |
| 北向角度 | 107 | |
| 结构类型 | 框架结构 | |
| 外墙太阳辐射吸收系数 | 0.91 | |
| 屋顶太阳辐射吸收系数 | 0.86 | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | 设计建筑 | | |
| 屋顶传热系数K [W/(m2·K)] | | | 0.37(D:5.52) | | |
| 外墙（包括非透明幕墙）传热系数K [W/(m2·K)] | | | 0.26(不含反射隔热外饰面附加热阻)(D:3.22) | | |
| 屋顶透明部分传热系数  K [W/(m2·K)] | | | 2.10 | | |
| 屋顶透明部分太阳得热系数 | | | 0.52 | | |
| 底面接触室外的架空或外挑楼板传热系数K [W/(m2·K)] | | | 0.73 | | |
| 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 |
| 南向 | 南-默认立面 | 0.07 | 2.10 | 0.52 |
| 北向 | 北-默认立面 | 0.05 | 2.10 | 0.52 |
| 东向 | 东-默认立面 | 0.02 | 2.10 | 0.52 |
| 西向 | 西-默认立面 | 0.04 | 2.10 | 0.52 |

# 计算依据

1. 《绿色建筑评价标准》(GB/T50378-2019)

2. 《民用建筑绿色性能计算标准》(JGJ/T 449-2018)

3. 《建筑能效标识技术标准》(JGJ/T 288-2012)

4. 《公共建筑节能设计标准》(GB50189-2015)

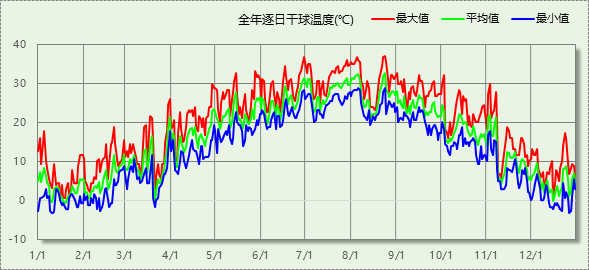
5. 《民用建筑热工设计规范》(GB50176)

# 气象数据

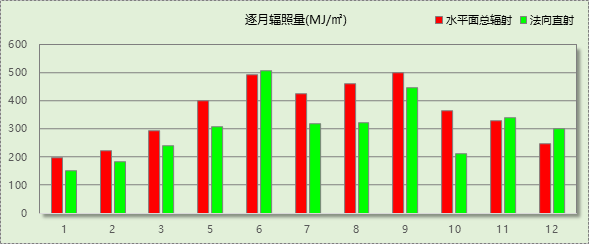
## 气象地点

安徽-合肥, 《中国建筑热环境分析专用气象数据集》

## 逐日干球温度表



## 逐月辐照量表



## 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) |
| 最大值 | 08月23日14时 | 37.2 | 30.0 | 24.3 | 99.8 |
| 最小值 | 01月09日03时 | -3.3 | -6.1 | 1.3 | -0.1 |

# 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 | 11.370 | 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 |
| 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 |
| 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 |  |
| 防水层(沥青油毡、油毡纸) | 0.170 | 3.302 | 600.0 | 1470.0 | 0.0000 |  |
| 水泥膨胀蛭石 | 0.140 | 1.990 | 350.0 | 1050.0 | 0.0000 |  |
| 膨胀珍珠岩(ρ=80) | 0.058 | 0.628 | 80.0 | 1170.0 | 0.0000 |  |
| 聚合物保温砂浆 | 0.110 | 3.500 | 650.0 | 2356.0 | 0.0000 |  |
| 普通混凝土多孔砖墙 | 0.740 | 7.250 | 1450.0 | 673.6 | 0.0000 |  |
| 矿棉、岩棉、玻璃棉毡(ρ≤70) | 0.050 | 0.584 | 70.0 | 1340.0 | 0.4880 |  |
| 石膏板 | 0.330 | 3.622 | 400.0 | 1367.0 | 0.0000 |  |

## 围护结构作法简要说明

**1. 屋顶构造：**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＋水泥膨胀蛭石 250mm＋水泥砂浆 20mm＋钢筋混凝土 100mm

**2. 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 190mm＋挤塑聚苯板 30mm＋抗裂砂浆（网格布） 5mm

**3. 挑空楼板构造：**挑空楼板构造一：（由上到下）

水泥砂浆 20mm＋膨胀珍珠岩(ρ=80) 50mm＋聚合物保温砂浆 50mm＋钢筋混凝土 100mm＋石灰水泥砂浆（混合砂浆） 15mm

**4. 外窗：**塑料窗框+（6mm高透光单片Low-E玻璃+12mm空气+6mm透明)：

传热系数2.100W/m^2.K，太阳得热系数0.520

**5. 天窗：**塑料窗框+（6mm高透光单片Low-E玻璃+12mm空气+6mm透明)：

传热系数2.100W/m^2.K，太阳得热系数0.520

# 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-普通办公室 | 26 | 18 | 25(m3/h.人) | 10(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-走廊 | 28 | 16 | 20(m3/h.人) | 50(㎡/人) | 5(W/㎡) | 15(W/㎡) |
| 商场-一般商店 | 28 | 18 | 19(m3/h.人) | 4(㎡/人) | 10(W/㎡) | 13(W/㎡) |
| 展厅 | 28 | 15 | 30(m3/h.人) | 10(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 报告厅 | 25 | 18 | 10(m3/h.人) | 3(㎡/人) | 15(W/㎡) | 5(W/㎡) |
| 茶室 | 26 | 18 | 30(m3/h.人) | 8(㎡/人) | 13(W/㎡) | 5(W/㎡) |
| 设备 | － | 15 | 20(m3/h.人) | 20(㎡/人) | 5(W/㎡) | 15(W/㎡) |
| 辅助用房 | － | 15 | 20(m3/h.人) | 20(㎡/人) | 5(W/㎡) | 15(W/㎡) |

## 作息时间表

详见附录

# 暖通空调系统

## 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 | － | － | 5837.28 | 1001-2(1),1002-1(1),2035(2),2021(2),3001(3),4001(3),3019(3),3003(3),3006(3),3002(3),3009(3),3008(3),3012(3),3016(3),3015(3),3011(3),3007(3),3005(3),3018(3),3017(3),3014(3),3013(3),3010(3),3004(3),4002(4) |
| Sys1 | 全空气机组(VAV) | － | － | 11000.07 | 1001(1),1003(1),1001-1(1),1002(1),1019(1),1017(1),1024(1),1031(1),1030(1),1029(1),1028(1),1027(1),1026(1),1023(1),1022(1),1021(1),1020(1),1016(1),1009(1),1008(1),1007(1),1009-1(1),1005(1),1004-1(1),1003-2(1),1011-1(1),1010-1(1),2076(2),2075(2),2074(2),2073(2),2072(2),2071(2),2002(2),2001(2),2028(2),2003(2),2051(2),2049(2),2060(2),2023(2),2022(2),2014(2),2013(2),2056(2),2050(2),2030(2),2029(2),2024(2),2010(2),2008(2),2040(2),2064(2),2047(2),2044(2),2036(2),2031(2),2045(2),2033(2),2063(2),2062(2),2061(2),2059(2),2055(2),2057(2),2046(2),2043(2),2042(2),2041(2),2027(2),2026(2),2025(2),2020(2),2018(2),2015(2),2053(2),2012(2),2067(2),2066(2),2065(2),2058(2),2052(2),2048(2),2037(2),2007(2),2006(2),2004(2),2039(2),2038(2),2017(2),2016(2) |

## 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 |
| 水冷-螺杆式冷水机组 | 水冷-螺杆式冷水机组 | 80 | 600 | 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 |
| 冷冻水泵 | 10 | 30 | 5 | 85 | 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 | 150 | 60 | 2.50 | 10 | 8 | 0 |
| 50 | 300 | 80 | 3.75 | 10 | 8 | 0 |
| 75 | 450 | 90 | 5.00 | 10 | 8 | 0 |
| 100 | 600 | 100 | 6.00 | 10 | 8 | 0 |

### 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 | 48131 | 839 | 2.50 | 19253 | 8390 | 6712 | 0 |
| 25~50 | 2728 | 13 | 3.75 | 727 | 130 | 104 | 0 |
| 50~75 | 2526 | 6 | 5.00 | 505 | 60 | 48 | 0 |
| 75~100 | 11645 | 21 | 6.00 | 1941 | 210 | 168 | 0 |
| >100 | 683156 | 705 | － | 70500 | 7050 | 5640 | 0 |
| 合计 | 748186 | 1584 |  | 92926 | 15840 | 12672 | 0 |

## 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 |
| 风冷-螺杆式 | 500 | 4.00 | 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 | 10 | 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 | 125 | 71.25 | 1.75 | 10 |
| 50 | 250 | 85.5 | 2.92 | 10 |
| 75 | 375 | 93.75 | 4.00 | 10 |
| 100 | 500 | 125 | 4.00 | 10 |

#### 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 | 35636 | 941 | 1.75 | 20312 | 9410 |
| 25~50 | 40860 | 219 | 2.92 | 13974 | 2190 |
| 50~75 | 43759 | 142 | 4.00 | 10940 | 1420 |
| 75~100 | 31597 | 73 | 4.00 | 7899 | 730 |
| >100 | 103621 | 137 | － | 17125 | 1370 |
| 合计 | 255472 | 1512 |  | 70250 | 15120 |

## 空调风机

### 独立新排风

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 系统编号 | 新风量 (m3/h) | 单位风量耗功率 W/(m3/h) | 风机功率(W) | 运行时长(h) | 新风电耗(kWh) |
| 默认 | 23531 | 0.24 | 5647 | 2049 | 11572 |
| 合计 | | | | | 11572 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 系统编号 | 排风量 (m3/h) | 排风比 | 单位风量耗功率W/(m3/h) | 风机功率(W) | 运行时长(h) | 排风电耗 (kWh) |
| 默认 | 18825 | 0.8 | 0.24 | 4518 | 2049 | 9257 |
| 合计 | | | | | | 9257 |

### 风机盘管

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 系统编号 | 总功率(W) | 同时使用系数 | 运行时长(h) | 风机盘管电耗(kWh) |
| 默认 | 400 | 1 | 1496 | 598 |
| 合计 | | | | 598 |

### 全空气机组

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 系统编号 | 风机 | 风量 (m3/h) | 最小 送风比 | 单位风量 耗功率 W/(m3/h) | 风机 功率 (W) | 运行 时长 (h) | 风机 电耗 (kWh) | 热回收 设备电耗 (kWh) |
| Sys1 | 送风 | 30000 | 0.4 | 0.12 | 3600 | 3096 | 2928 | 0 |
| 合计 | | | | | |  | 2928 | 0 |

# 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 | 96 | 12479 | 188687 |
| 办公-走廊 | 11.81 | 6 | 4265 | 50380 |
| 商场-一般商店 | 40.15 | 1 | 184 | 7394 |
| 展厅 | 24.75 | 2 | 1089 | 26954 |
| 报告厅 | 57.12 | 5 | 2878 | 164399 |
| 茶室 | 29.90 | 7 | 844 | 25228 |
| 设备 | 8.40 | 5 | 884 | 7426 |
| 辅助用房 | 13.75 | 7 | 1267 | 17418 |
| 总计 | | | | 487886 |

# 插座设备

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 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 | 35.25 | 96 | 12479 | 439896 |
| 办公-走廊 | 33.19 | 6 | 4265 | 141545 |
| 商场-一般商店 | 47.45 | 1 | 184 | 8739 |
| 展厅 | 41.25 | 2 | 1089 | 44923 |
| 报告厅 | 16.05 | 5 | 2878 | 46194 |
| 茶室 | 5.00 | 7 | 844 | 4219 |
| 设备 | 41.25 | 5 | 884 | 36467 |
| 辅助用房 | 41.25 | 7 | 1267 | 52255 |
| 总计 | | | | 774237 |

# 排风机

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 额定功率 (kW) | 台数 | 使用系数 | 运行时间 (h/天) | 年运行天数 | 全年电耗 (kWh) |
| 5 | 10 | 0.8 | 4 | 365 | 58400 |
| 总计 | | | | | 58400 |

注：此类风机指非空调区域排风机

# 生活热水

热水温差(℃)：45, 日照辐照量(kJ/㎡.天)：18340，年运行天数：365

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 分区 | 用水 定额 (L·人/d) | 供应 人数 | 年使用 天数 | 所需 能耗 (kWh) | 集热器 面积 (㎡) | 集热器 效率 | 热损失 系数 | 太阳能 供热 (kWh) |
| 办公 | 10 | 100 | 365 | 6408.15 | 100 | 0.45 | 0.15 | 6408.15 |
| 总计 | | | | 6408 |  | | | 6408 |

# 电梯

## 直梯

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 名称 | 额定功率 (kWh) | 待机功率 (W) | 运行时长 (h/天) | 年运行 天数 | 同时使 用系数 | 数量 | 全年电耗 (kWh) |
| 直梯1 | 26 | 5 | 1.5 | 365 | 0.4 | 1 | 5696.74 |
| 总计 | | | | | | | 5697 |

# 光伏发电

日照辐照量(kJ/㎡.天)：18340，年运行天数：365

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 光伏板面积 (㎡) | 单位面积 发电参数 | 光伏系统效率 | 光伏电池性能衰减修正系数 | 全年电耗 (kWh) |
| 9800 | 0.4 | 0.8 | 0.9 | 5248 |
| 总计 | | | | 5248 |

# 计算结果

## 逐月电耗

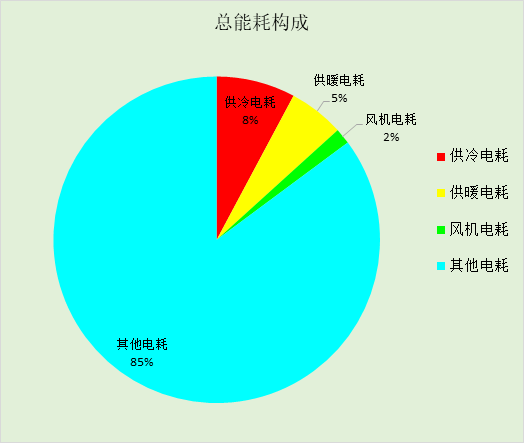
注:供冷供暖为冷热源及输配水泵电耗，热水为扣减太阳能后电耗，所有数据单位kWh/㎡。

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 月 | 供冷 | 供暖 | 空调风机 | 照明 | 插座设备 | 排风机 | 电梯 | 热水 |
| 1 | 0.00 | 1.75 | 0.18 | 1.86 | 2.97 | － | － | － |
| 2 | 0.00 | 0.70 | 0.07 | 1.51 | 2.31 |
| 3 | 0.00 | 0.00 | 0.00 | 1.80 | 2.84 |
| 4 | 0.00 | 0.00 | 0.00 | 1.78 | 2.84 |
| 5 | 0.00 | 0.00 | 0.00 | 1.86 | 2.97 |
| 6 | 0.97 | 0.00 | 0.08 | 1.66 | 2.58 |
| 7 | 2.64 | 0.00 | 0.19 | 1.91 | 3.10 |
| 8 | 2.52 | 0.00 | 0.19 | 1.86 | 2.97 |
| 9 | 1.07 | 0.00 | 0.09 | 1.72 | 2.71 |
| 10 | 0.00 | 0.00 | 0.00 | 1.74 | 2.71 |
| 11 | 0.00 | 0.34 | 0.09 | 1.78 | 2.84 |
| 12 | 0.00 | 1.36 | 0.18 | 1.86 | 2.97 |
| 合计 | 7.20 | 4.14 | 1.06 | 21.32 | 33.84 | 2.55 | 0.25 | 0.00 |

## 全年能耗

注:负荷和电耗均为考虑热回收后的值

|  |  |  |  |
| --- | --- | --- | --- |
| 能耗分类 | 能耗子类 | 设计建筑  (kWh/㎡) | 备注 |
| 建筑负荷 | 耗冷量 | 32.70 |  |
| 耗热量 | 11.17 |  |
| 冷热合计 | 43.87 |  |
| 热回收 | 供冷 | 1.44 |  |
| 供暖 | 2.38 |  |
| 冷热合计 | 3.82 |  |
| 供冷电耗  (Ec) | 中央冷源 | 4.06 |  |
| 冷却水泵 | 0.69 |  |
| 冷冻水泵 | 0.55 |  |
| 冷却塔 | 0.00 |  |
| 多联机/单元式空调 | 0.00 |  |
| 供冷合计 | 5.31 |  |
| 供暖电耗  (Eh) | 中央热源 | 3.07 |  |
| 供暖水泵 | 0.66 |  |
| 多联机/单元式热泵 | 0.00 |  |
| 供暖合计 | 3.73 |  |
| 风机电耗  (Ef) | 新排风 | 0.91 |  |
| 风机盘管 | 0.03 |  |
| 多联机室内机 | 0.00 |  |
| 全空气系统 | 0.13 |  |
| 风机合计 | 1.06 |  |
| 其他电耗  (Eo) | 照明 | 21.32 |  |
| 插座设备 | 33.84 |  |
| 电梯 | 0.25 |  |
| 独立排风机 | 2.55 |  |
| 生活热水 | 0.00 | 扣减了太阳能热水 |
| 其他合计 | 57.97 |  |
| 可再生能源  (Er) | 太阳能热水(Es) | 0.28 |  |
| 光伏发电(Ep) | 229.38 |  |
| 合计 | 229.66 |  |
| 建筑总能耗(E1)：电耗(kWh/㎡) | | 0.00 | E1=Ec+Eh+Ef+Eo-Ep |



# 附录

## 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 |
| 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 |
| 展厅 | 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 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 报告厅 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 茶室 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 设备 | 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 |
| 辅助用房 | 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 | 45 | 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-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 |
| 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 |
| 展厅 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 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 |
| 报告厅 | 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 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 茶室 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 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 |
| 设备 | 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 |
| 辅助用房 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 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 |

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-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 |
| 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 |
| 展厅 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 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 |
| 报告厅 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 茶室 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 设备 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 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 |
| 辅助用房 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 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 |

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 |
| Sys1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 |

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 |
| Sys1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 |

注：上行：工作日；下行：节假日