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| CT-4000技术规格书（Technical specifications） | | | | | | |  | |
| **BTS4000-**5V60A **电池检测设备 BTS4000-**5V60A **Battery Test Equipment** | | | | | | |  | |
| 设备型号： Model: | | | BTS-5V60A | | | |
| 指标项目 Items | | | 指标参数 Values | | | |
| 输入电源 AC Input | | | AC 380V ±10% / 50Hz | | | |
| 输入有功功率 Power Input | | | 17.01 KW | | | |
| 分辨率 Measurement Resolution | | | AD：16bit；DA：16bit | | | |
| 输入阻抗 Impedance Input | | | ≥1MΩ | | | |
| 电压 Voltage | 恒压电压范围控制 Constant Voltage Range | | 0.025V~5V | | | |
| 最低放电电压 Min. Discharge Voltage | | 2.5V | | | |
| 精度 Accuracy | | ± 0.1% of FS | | | |
| 稳定度 Stability | | ± 0.1% of FS | | | |
| 电流 Current | 每通道输出范围  Output Current/CH | | 0.3A~60A | | | |
| 精度 Accuracy | | ± 0.1% of FS | | | |
| 恒压截止电流  Cut-off Current (CV mode) | | 0.12A | | | |
| 稳定度 Stability | | ± 0.1% of FS | | | |
| 功率 Power | 单通道最大输出功率 Max. Power/CH | | 300W | | | |
| 稳定度 Stability | | ±0.2% of FS | | | |
| 时间 Time | 电流上升时间 Current Rise Time | | Max 20ms (10% FS~ 90%FS) | | | |
| 工步时间范围 Step Time Range | | ≤(365\*24)h/step; Time format: 00：00：00.000(h、min、s、ms) | | | |
| 数据记录 Data Record | 数据记录条件 Data Record Conditions | | 最小时间间隔：100ms Min acquisition time: | | | |
| 最小电压间隔：10mV Min voltage interval: | | | |
| 最小电流间隔：0.12A Min current interval: | | | |
| 充电 Charge | 充电模式 Modes of Operation | | 恒流充电、恒压充电、恒流恒压充电、恒功率充电 CC,CV,CCCV,CP | | | |
| 截止条件 Cut-off Conditions | | 电压、电流、相对时间、容量、-△V Voltage, current, time, capacity, -△V | | | |
| 放电 Discharge | 放电模式 Modes of Operation | | 恒流放电、恒功率放电、恒阻放电、恒压放电、恒流恒压放电 CC, CV, CCCV, CP, CR | | | |
| 截止条件 | Cut-off Conditions | 电压、电流、相对时间、容量 Voltage, current, time, capacity | | | |  |
| 脉冲模式 Pulse | 充电 Charge | | 横流模式、恒功率模式 | | | |
| 放电 Discharge | | 横流模式、恒功率模式 | | | |
| 最小脉冲宽度 Min Pulse Width | | 500ms | | | |
| 脉冲个数 Pulse Counts | | 单个脉冲工步支持32个不同的脉冲 | | | |
| 充放电连续切换 Chg and Dschg switch | | 一个脉冲工步可以实现从充电到放电的连续切换 | | | |
| 截止条件 Cut-off Conditions | | 电压、相对时间 | | | |
| DCR测试 DCIR | 支持自定义取点进行DCR的计算 Yes, calculated by BTSDA | | | | | |
| 并联模式 Parallel Ability | 最多可支持4个通道并联，并联后不支持脉冲 Yes, max 4CH, pulse mode is disabled after parallel | | | | | |
| 循环 Cycle | 循环测试范围 Max Cycles | | ≤65535 | | | |
| 单循环工步数 Max Steps/Cycle | | ≤254 | | | |
| 循环嵌套 Cycle Nest | | ≤10层 | | | |
| 保护 Protection Modes | ● 掉电数据保护 Power shutdown data protection | | | | | |
| ●具有脱机测试功能 Offline operation mode | | | | | |
| ●可设定安全保护条件，设置参数包括：电压上限、电压下限、电流上限、电流下限、容量上限、延时时间  User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. | | | | | |
| ●具有防反接功能 Anti-reverse function | | | | | |
| IP防护等级 IP Level | | | 防护等级IP20 IP20 | | | |
| 通道特点 Channel Feature | | | 恒流源与恒压源采用双闭环结构  Independent pairs of closed loop for constant current source and constant voltage source | | | |
| 通道控制模式 Channel Control Mode | | | 独立控制 Independent control | | | |
| 电压电流检测采样 Data Acquisition | | | 四线制连接 4-wire Connection | | | |
| 噪声 Noise Level | | | <85dB | | | |
| 数据库 Database | | | 采用MySQL数据库集中管理测试数据 | | | |
| 上位机通讯方式 Connection for PC | | | 基于TCP/IP协议 TCP/IP (Ethernet) | | | |
| 数据输出方式 Data Export Format | | | EXCEL2003,2010、TXT | | | |
| 服务器磁盘配置 Disk Drive Config | | | Min. 500GB | | | |
| 漏电流 Leakage Current | | | 0.005mA | | | |
| 服务器操作系统 PC Operating System | | | Windows 7、Windows10 | | | |
| Communication Interface 通讯接口 | | | 网口、CAN通信模块支持与BMS通信，获取BMS的数据（选配） PC: TCP/IP (Ethernet) Battery: CAN communication with BMS is available (Optional) | | | |
| 设备工作环境要求 Operation and Storage Environment Requirement | | | | | | |
| 指标项目 Items | | | 指标参数 Values | | | |
| 工作温度范围 Operating Temperature | | | 0℃~40℃（在25±10℃范围内，保证测量精度：精度漂移0.005% of FS /℃）0℃~40℃ (When the temperature is 25±10℃, the accuracy offset caused by temperature is less than 50ppm /℃) | | | |
| 存储温度范围 Storage Temperature | | | -10℃~50℃ | | | |
| 工作环境相对湿度范围 Operating Humidity | | | ≤70% RH（没有水汽凝结）(no moisture condensation) | | | |
| 存储环境相对湿度范围 Storage Humidity | | | ≤80% RH（没有水汽凝结）(no moisture condensation) | | | |
| 夹具规格与尺寸 Clamps and Dimensions | | | | | | |
| 指标项目 Items | | | 指标参数 Values | | | |
| 夹具类型 Clamp Types | | | 可选 | | | |
| 夹具图片  Clamps Pictures (for reference only) | | |  |  |  | |
| 鳄鱼夹具 Alligator | 聚合物夹具 Polymer | 线鼻子夹具 Ring Connector | |
| 图片仅供参考，以实物为准，以上夹具选其一 1 set (Standard accessory package) | | | |
| 每单元机箱尺寸 Cabinet Dimension (W x D x H) (mm) | | | 无 | | | |
| 整机通道数 Channel | | | 32 | | | |
| 设备图片 Tester Picture (for reference only) | | |  | | | |
| 图片仅供参考，以实物为准 for reference only | | | |
| 辅助通道(选配) Auxiliary Channel (Optional) | 辅助通道类型 Auxiliary Channel Type | | 温度、电压 Temperature, voltage | | | |
| 温度范围 Auxiliary Temperature Range | | 热电偶：-200℃~260℃ | | | |  |
| 温度精度 Auxiliary Temperature Accuracy | | ±1℃（线长2m以内）±1℃(within 2m cable) | | | |  |
| 温度分辨率 Auxiliary Temperature Resolution | | 0.1℃ | | | |  |
| 电压范围 Auxiliary Voltage Inputs | | 0V~5V | | | |  |
| 电压精度 Auxiliary Voltage Accuracy | | ± 0.1% of FS | | | |  |
| 每通道可带温度辅助通道数 Max Auxiliary Temperature Channels/CH | | | 可随需要填写(最多可带248个温度辅助通道数）Max 248 | | | |  |
| 每通道可带电压辅助通道数 Max Auxiliary Voltage Channels/CH | | | 可随需要填写(最多可带248个电压辅助通道数）Max 248 | | | |  |
| 辅助通道保护条件 Auxiliary Channel Protection Conditions | | | ●可设定辅助通道保护条件，可设置参数包括：温度上限、温度下限、电压上限、电压下限、单体电池压差 User-defined protection conditions, such as upper and lower limited temperature/auxiliary voltage, △V,etc. | | | |  |
| **备注：不兼容带具有软起功能的保护板电池的测试 (不会翻译)** | | | | | | |  |