## MODBUS-RTU 协议

## 一、通讯协议

1、引用标准：通用MODBUS RTU协议；底层协议：RS-485；物理接口：串行通讯口采用两线RS-485，传输方式为异步、半双工方式，先传输最低有效位。

2、数据传输速率：出厂默认为9600bps；（可多选，4800,9200,19200,38400）

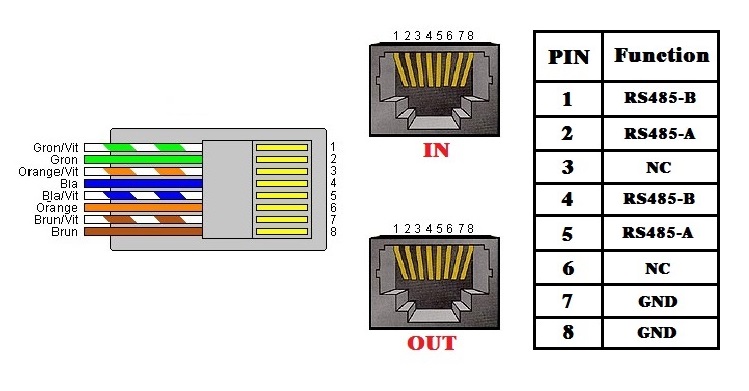
数据位：8

奇偶校验：无

停止位：1

数据流控制：无

硬件接口线序：



**二、功能码**

|  |  |
| --- | --- |
| **功能码** | **名称** |
| 0x03 | 查询 |
| 0x10 | 设置 |

**三、查询格式**

主机发送，括号内为字节数：

从机地址（1），功能码（1），寄存器首地址（2），数据长度（2），CRC码（2）

从机应答，括号内为字节数：

从机地址（1），功能码（1），数据字节数（1），数据（N），CRC码（2）

**四、寄存器列表**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **编号** | **项目** | **MODBUS地址** | **单位** | **属性** | **参数转换公式** | **返回字节数** |
| 1 | 总电压L1 | 0x0000 | V | 只读 | =register | 2 |
| 2 | 总电压L2 | 0x0001 | V | 只读 | =register | 2 |
| 3 | 总电压L3 | 0x0002 | V | 只读 | =register | 2 |
| 4 | 总电流L1 | 0x0003 | A | 只读 | =register/10 | 2 |
| 5 | 总电流L2 | 0x0004 | A | 只读 | =register/10 | 2 |
| 6 | 总电流L3 | 0x0005 | A | 只读 | =register/10 | 2 |
| 7 | 总功率L1 | 0x0006 | KW | 只读 | =register/10 | 2 |
| 8 | 总功率L2 | 0x0007 | KW | 只读 | =register/10 | 2 |
| 9 | 总功率L3 | 0x0008 | KW | 只读 | =register/10 | 2 |
| 10 | 功率因数L1 | 0x0009 |  | 只读 | =register/100 | 2 |
| 11 | 功率因数L2 | 0x000A |  | 只读 | =register/100 | 2 |
| 12 | 功率因数L3 | 0x000B |  | 只读 | =register/100 | 2 |
| 13 | 总电能L1 | 0x000C-0x000D |  | 只读 | =register/10 | 2 |
| 14 | 总电能L2 | 0x000E-0x000F |  | 只读 | =register/10 | 2 |
| 15 | 总电能L3 | 0x0010-0x0011 |  | 只读 | =register/10 | 2 |
| 16 | 总电压L1下限 | 0x0012 | V | 读/写 | =register | 2 |
| 17 | 总电压L1上限 | 0x0013 | V | 读/写 | =register | 2 |
| 18 | 总电压L2下限 | 0x0014 | V | 读/写 | =register | 2 |
| 19 | 总电压L2上限 | 0x0015 | V | 读/写 | =register | 2 |
| 20 | 总电压L3下限 | 0x0016 | V | 读/写 | =register | 2 |
| 21 | 总电压L3上限 | 0x0017 | V | 读/写 | =register | 2 |
| 22 | 总电流L1下限 | 0x0018 | A | 读/写 | =register/10 | 2 |
| 23 | 总电流L1上限 | 0x0019 | A | 读/写 | =register/10 | 2 |
| 24 | 总电流L2下限 | 0x001A | A | 读/写 | =register/10 | 2 |
| 25 | 总电流L2上限 | 0x001B | A | 读/写 | =register/10 | 2 |
| 26 | 总电流L3下限 | 0x001C | A | 读/写 | =register/10 | 2 |
| 27 | 总电流L3上限 | 0x001D | A | 读/写 | =register/10 | 2 |
| 28 | 温度1 | 0x001E | °c | 只读 | =register/10 | 2 |
| 29 | 温度2 | 0x001F | °c | 只读 | =register/10 | 2 |
| 30 | 温度3 | 0x0020 | °c | 只读 | =register/10 | 2 |
| 31 | 温度4 | 0x0021 | °c | 只读 | =register/10 | 2 |
| 32 | 湿度1 | 0x0022 | % | 只读 | =register/10 | 2 |
| 33 | 湿度2 | 0x0023 | % | 只读 | =register/10 | 2 |
| 34 | 湿度3 | 0x0024 | % | 只读 | =register/10 | 2 |
| 35 | 湿度4 | 0x0025 | % | 只读 | =register/10 | 2 |
| 36 | 门禁1 | 0x0026 |  | 只读 | =register  1=开启  2=关闭 | 2 |
| 37 | 门禁2 | 0x0027 |  | 只读 | =register  1=开启  2=关闭 | 2 |
| 38 | 烟雾 | 0x0028 |  | 只读 | =register  1=开启  2=关闭 | 2 |
| 39 | 水浸 | 0x0029 |  | 只读 | =register  1=开启  2=关闭 | 2 |
| 40 | 温度1下限 | 0x002A | °c | 读/写 | =register | 2 |
| 41 | 温度1上限 | 0x002B | °c | 读/写 | =register | 2 |
| 42 | 温度2下限 | 0x002C | °c | 读/写 | =register | 2 |
| 43 | 温度2上限 | 0x002D | °c | 读/写 | =register | 2 |
| 44 | 温度3下限 | 0x002E | °c | 读/写 | =register | 2 |
| 45 | 温度3上限 | 0x002F | °c | 读/写 | =register | 2 |
| 46 | 温度4下限 | 0x0030 | °c | 读/写 | =register | 2 |
| 47 | 温度4上限 | 0x0031 | °c | 读/写 | =register | 2 |
| 48 | 湿度1下限 | 0x0032 | % | 读/写 | =register | 2 |
| 49 | 湿度1上限 | 0x0033 | % | 读/写 | =register | 2 |
| 50 | 湿度2下限 | 0x0034 | % | 读/写 | =register | 2 |
| 51 | 湿度2上限 | 0x0035 | % | 读/写 | =register | 2 |
| 52 | 湿度3下限 | 0x0036 | % | 读/写 | =register | 2 |
| 53 | 湿度3上限 | 0x0037 | % | 读/写 | =register | 2 |
| 54 | 湿度4下限 | 0x0038 | % | 读/写 | =register | 2 |
| 55 | 湿度4上限 | 0x0039 | % | 读/写 | =register | 2 |
| 56 | 输出单元1电流 | 0x003A | A | 只读 | =register/10 | 2 |
| 57 | 输出单元2电流 | 0x003B | A | 只读 | =register/10 | 2 |
| 58 | 输出单元3电流 | 0x003C | A | 只读 | =register/10 | 2 |
| 59 | 输出单元4电流 | 0x003D | A | 只读 | =register/10 | 2 |
| 60 | 输出单元5电流 | 0x003E | A | 只读 | =register/10 | 2 |
| 61 | 输出单元6电流 | 0x003F | A | 只读 | =register/10 | 2 |
| 62 | 输出单元7电流 | 0x0040 | A | 只读 | =register/10 | 2 |
| 63 | 输出单元8电流 | 0x0041 | A | 只读 | =register/10 | 2 |
| 64 | 输出单元9电流 | 0x0042 | A | 只读 | =register/10 | 2 |
| 65 | 输出单元10电流 | 0x0043 | A | 只读 | =register/10 | 2 |
| 66 | 输出单元11电流 | 0x0044 | A | 只读 | =register/10 | 2 |
| 67 | 输出单元12电流 | 0x0045 | A | 只读 | =register/10 | 2 |
| 68 | 输出单元13电流 | 0x0046 | A | 只读 | =register/10 | 2 |
| 69 | 输出单元14电流 | 0x0047 | A | 只读 | =register/10 | 2 |
| 70 | 输出单元15电流 | 0x0048 | A | 只读 | =register/10 | 2 |
| 71 | 输出单元16电流 | 0x0049 | A | 只读 | =register/10 | 2 |
| 72 | 输出单元17电流 | 0x004A | A | 只读 | =register/10 | 2 |
| 73 | 输出单元18电流 | 0x004B | A | 只读 | =register/10 | 2 |
| 74 | 输出单元19电流 | 0x004C | A | 只读 | =register/10 | 2 |
| 75 | 输出单元20电流 | 0x004D | A | 只读 | =register/10 | 2 |
| 76 | 输出单元21电流 | 0x004E | A | 只读 | =register/10 | 2 |
| 77 | 输出单元22电流 | 0x004F | A | 只读 | =register/10 | 2 |
| 78 | 输出单元23电流 | 0x0050 | A | 只读 | =register/10 | 2 |
| 79 | 输出单元24电流 | 0x0051 | A | 只读 | =register/10 | 2 |
| 80 | 输出单元1电流下限 | 0x0052 | A | 读/写 | =register | 2 |
| 81 | 输出单元1电流上限 | 0x0053 | A | 读/写 | =register | 2 |
| 82 | 输出单元2电流下限 | 0x0054 | A | 读/写 | =register | 2 |
| 83 | 输出单元2电流上限 | 0x0055 | A | 读/写 | =register | 2 |
| 84 | 输出单元3电流下限 | 0x0056 | A | 读/写 | =register | 2 |
| 85 | 输出单元3电流上限 | 0x0057 | A | 读/写 | =register | 2 |
| 86 | 输出单元4电流下限 | 0x0058 | A | 读/写 | =register | 2 |
| 87 | 输出单元4电流上限 | 0x0059 | A | 读/写 | =register | 2 |
| 88 | 输出单元5电流下限 | 0x005A | A | 读/写 | =register | 2 |
| 89 | 输出单元5电流上限 | 0x005B | A | 读/写 | =register | 2 |
| 90 | 输出单元6电流下限 | 0x005C | A | 读/写 | =register | 2 |
| 91 | 输出单元6电流上限 | 0x005D | A | 读/写 | =register | 2 |
| 92 | 输出单元7电流下限 | 0x005E | A | 读/写 | =register | 2 |
| 93 | 输出单元7电流上限 | 0x005F | A | 读/写 | =register | 2 |
| 94 | 输出单元8电流下限 | 0x0060 | A | 读/写 | =register | 2 |
| 95 | 输出单元8电流上限 | 0x0061 | A | 读/写 | =register | 2 |
| 96 | 输出单元9电流下限 | 0x0062 | A | 读/写 | =register | 2 |
| 97 | 输出单元9电流上限 | 0x0063 | A | 读/写 | =register | 2 |
| 98 | 输出单元10电流下限 | 0x0064 | A | 读/写 | =register | 2 |
| 99 | 输出单元10电流上限 | 0x0065 | A | 读/写 | =register | 2 |
| 100 | 输出单元11电流下限 | 0x0066 | A | 读/写 | =register | 2 |
| 101 | 输出单元11电流上限 | 0x0067 | A | 读/写 | =register | 2 |
| 102 | 输出单元12电流下限 | 0x0068 | A | 读/写 | =register | 2 |
| 103 | 输出单元12电流上限 | 0x0069 | A | 读/写 | =register | 2 |
| 104 | 输出单元13电流下限 | 0x006A | A | 读/写 | =register | 2 |
| 105 | 输出单元13电流上限 | 0x006B | A | 读/写 | =register | 2 |
| 106 | 输出单元14电流下限 | 0x006C | A | 读/写 | =register | 2 |
| 107 | 输出单元14电流上限 | 0x006D | A | 读/写 | =register | 2 |
| 108 | 输出单元15电流下限 | 0x006E | A | 读/写 | =register | 2 |
| 109 | 输出单元15电流上限 | 0x006F | A | 读/写 | =register | 2 |
| 110 | 输出单元16电流下限 | 0x0070 | A | 读/写 | =register | 2 |
| 111 | 输出单元16电流上限 | 0x0071 | A | 读/写 | =register | 2 |
| 112 | 输出单元17电流下限 | 0x0072 | A | 读/写 | =register | 2 |
| 113 | 输出单元17电流上限 | 0x0073 | A | 读/写 | =register | 2 |
| 114 | 输出单元18电流下限 | 0x0074 | A | 读/写 | =register | 2 |
| 115 | 输出单元18电流上限 | 0x0075 | A | 读/写 | =register | 2 |
| 116 | 输出单元19电流下限 | 0x0076 | A | 读/写 | =register | 2 |
| 117 | 输出单元19电流上限 | 0x0077 | A | 读/写 | =register | 2 |
| 118 | 输出单元20电流下限 | 0x0078 | A | 读/写 | =register | 2 |
| 119 | 输出单元20电流上限 | 0x0079 | A | 读/写 | =register | 2 |
| 120 | 输出单元21电流下限 | 0x007A | A | 读/写 | =register | 2 |
| 121 | 输出单元21电流上限 | 0x007B | A | 读/写 | =register | 2 |
| 122 | 输出单元22电流下限 | 0x007C | A | 读/写 | =register | 2 |
| 123 | 输出单元22电流上限 | 0x007D | A | 读/写 | =register | 2 |
| 124 | 输出单元23电流下限 | 0x007E | A | 读/写 | =register | 2 |
| 125 | 输出单元23电流上限 | 0x007F | A | 读/写 | =register | 2 |
| 126 | 输出单元24电流下限 | 0x0080 | A | 读/写 | =register | 2 |
| 127 | 输出单元24电流上限 | 0x0081 | A | 读/写 | =register | 2 |
| 128 | 输出单元1电能 | 0x0082-0x0083 | KWh | 只读 | =register/10 | 2 |
| 129 | 输出单元2电能 | 0x0084-0x0085 | KWh | 只读 | =register/10 | 2 |
| 130 | 输出单元3电能 | 0x0086-0x0087 | KWh | 只读 | =register/10 | 2 |
| 131 | 输出单元4电能 | 0x0088-0x0089 | KWh | 只读 | =register/10 | 2 |
| 132 | 输出单元5电能 | 0x008A-0x008B | KWh | 只读 | =register/10 | 2 |
| 133 | 输出单元6电能 | 0x008C-0x008D | KWh | 只读 | =register/10 | 2 |
| 134 | 输出单元7电能 | 0x008E-0x008F | KWh | 只读 | =register/10 | 2 |
| 135 | 输出单元8电能 | 0x0090-0x0091 | KWh | 只读 | =register/10 | 2 |
| 136 | 输出单元9电能 | 0x0092-0x0093 | KWh | 只读 | =register/10 | 2 |
| 137 | 输出单元10电能 | 0x0094-0x0095 | KWh | 只读 | =register/10 | 2 |
| 138 | 输出单元11电能 | 0x0096-0x0097 | KWh | 只读 | =register/10 | 2 |
| 139 | 输出单元12电能 | 0x0098-0x0099 | KWh | 只读 | =register/10 | 2 |
| 140 | 输出单元13电能 | 0x009A-0x009B | KWh | 只读 | =register/10 | 2 |
| 141 | 输出单元14电能 | 0x009C-0x009D | KWh | 只读 | =register/10 | 2 |
| 142 | 输出单元15电能 | 0x009E-0x009F | KWh | 只读 | =register/10 | 2 |
| 143 | 输出单元16电能 | 0x00A0-0x00A1 | KWh | 只读 | =register/10 | 2 |
| 144 | 输出单元17电能 | 0x00A2-0x00A3 | KWh | 只读 | =register/10 | 2 |
| 145 | 输出单元18电能 | 0x00A4-0x00A5 | KWh | 只读 | =register/10 | 2 |
| 146 | 输出单元19电能 | 0x00A6-0x00A7 | KWh | 只读 | =register/10 | 2 |
| 147 | 输出单元20电能 | 0x00A8-0x00A9 | KWh | 只读 | =register/10 | 2 |
| 148 | 输出单元21电能 | 0x00AA-0x00AB | KWh | 只读 | =register/10 | 2 |
| 149 | 输出单元22电能 | 0x00AC-0x00AD | KWh | 只读 | =register/10 | 2 |
| 150 | 输出单元23电能 | 0x00AE-0x00AF | KWh | 只读 | =register/10 | 2 |
| 151 | 输出单元24电能 | 0x00B0-0x00B1 | KWh | 只读 | =register/10 | 2 |
| 152 | 输出单元1状态 | 0x00B2 |  | 读/写 | 1=关闭  2=开启 | 2 |
| 153 | 输出单元2状态 | 0x00B3 |  | 读/写 | 2 |
| 154 | 输出单元3状态 | 0x00B4 |  | 读/写 | 2 |
| 155 | 输出单元4状态 | 0x00B5 |  | 读/写 | 2 |
| 156 | 输出单元5状态 | 0x00B6 |  | 读/写 | 2 |
| 157 | 输出单元6状态 | 0x00B7 |  | 读/写 | 2 |
| 158 | 输出单元7状态 | 0x00B8 |  | 读/写 | 2 |
| 159 | 输出单元8状态 | 0x00B9 |  | 读/写 | 2 |
| 160 | 输出单元9状态 | 0x00BA |  | 读/写 | 2 |
| 161 | 输出单元10状态 | 0x00BB |  | 读/写 | 2 |
| 162 | 输出单元11状态 | 0x00BC |  | 读/写 | 2 |
| 163 | 输出单元12状态 | 0x00BD |  | 读/写 | 2 |
| 164 | 输出单元13状态 | 0x00BE |  | 读/写 | 2 |
| 165 | 输出单元14状态 | 0x00BF |  | 读/写 | 2 |
| 166 | 输出单元15状态 | 0x00C0 |  | 读/写 | 2 |
| 167 | 输出单元16状态 | 0x00C1 |  | 读/写 | 2 |
| 168 | 输出单元17状态 | 0x00C2 |  | 读/写 | 2 |
| 169 | 输出单元18状态 | 0x00C3 |  | 读/写 | 2 |
| 170 | 输出单元19状态 | 0x00C4 |  | 读/写 | 2 |
| 171 | 输出单元20状态 | 0x00C5 |  | 读/写 | 2 |
| 172 | 输出单元21状态 | 0x00C6 |  | 读/写 | 2 |
| 173 | 输出单元22状态 | 0x00C7 |  | 读/写 | 2 |
| 174 | 输出单元23状态 | 0x00C8 |  | 读/写 | 2 |
| 175 | 输出单元24状态 | 0x00C9 |  | 读/写 | 2 |
|  |  |  |  |  |  |  |

**五、设置寄存器**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **编号** | **项目** | **MODBUS地址** | **单位** | **属性** | **参数转换公式** | **说明** |
| 1 | 地址 | 0x1000 |  | 写 | =register | 1-254 |
| 2 | 总电压L1下限 | 0x1001 | V | 写 | =register | 170-276 |
| 3 | 总电压L1上限 | 0x1002 | V | 写 | =register | 170-267 |
| 4 | 总电压L2下限 | 0x1003 | V | 写 | =register | 170-276 |
| 5 | 总电压L2上限 | 0x1004 | V | 写 | =register | 170-267 |
| 6 | 总电压L3下限 | 0x1005 | V | 写 | =register | 170-276 |
| 7 | 总电压L3上限 | 0x1006 | V | 写 | =register | 170-267 |
| 8 | 总电流L1下限 | 0x1007 | A | 写 |  |  |
| 9 | 总电流L1上限 | 0x1008 | A | 写 |  |  |
| 10 | 总电流L2下限 | 0x1009 | A | 写 |  |  |
| 11 | 总电流L2上限 | 0x100A | A | 写 |  |  |
| 12 | 总电流L3下限 | 0x100B | A | 写 |  |  |
| 13 | 总电流L3上限 | 0x100C | A | 写 |  |  |
| 14 | 温度1下限 | 0x100D | °c | 写 |  |  |
| 15 | 温度1上限 | 0x100E | °c | 写 |  |  |
| 16 | 温度2下限 | 0x100F | °c | 写 |  |  |
| 17 | 温度2上限 | 0x1010 | °c | 写 |  |  |
| 18 | 温度3下限 | 0x1011 | °c | 写 |  |  |
| 19 | 温度3上限 | 0x1012 | °c | 写 |  |  |
| 20 | 温度4下限 | 0x1013 | °c | 写 |  |  |
| 21 | 温度4上限 | 0x1014 | °c | 写 |  |  |
| 22 | 湿度1下限 | 0x1015 | % | 写 |  |  |
| 23 | 湿度1上限 | 0x1016 | % | 写 |  |  |
| 24 | 湿度2下限 | 0x1017 | % | 写 |  |  |
| 25 | 湿度2上限 | 0x1018 | % | 写 |  |  |
| 26 | 湿度3下限 | 0x1019 | % | 写 |  |  |
| 27 | 湿度3上限 | 0x101A | % | 写 |  |  |
| 28 | 湿度4下限 | 0x101B | % | 写 |  |  |
| 29 | 湿度4上限 | 0x101C | % | 写 |  |  |
| 30 | 输出单元1下限 | 0x101D | A | 写 |  |  |
| 31 | 输出单元1上限 | 0x101E | A | 写 |  |  |
| 32 | 输出单元2下限 | 0x101F | A | 写 |  |  |
| 33 | 输出单元2上限 | 0x1020 | A | 写 |  |  |
| 34 | 输出单元3下限 | 0x1021 | A | 写 |  |  |
| 35 | 输出单元3上限 | 0x1022 | A | 写 |  |  |
| 36 | 输出单元4下限 | 0x1023 | A | 写 |  |  |
| 37 | 输出单元4上限 | 0x1024 | A | 写 |  |  |
| 38 | 输出单元5下限 | 0x1025 | A | 写 |  |  |
| 39 | 输出单元5上限 | 0x1026 | A | 写 |  |  |
| 40 | 输出单元6下限 | 0x1027 | A | 写 |  |  |
| 41 | 输出单元6上限 | 0x1028 | A | 写 |  |  |
| 42 | 输出单元7下限 | 0x1029 | A | 写 |  |  |
| 43 | 输出单元7上限 | 0x102A | A | 写 |  |  |
| 44 | 输出单元8下限 | 0x102B | A | 写 |  |  |
| 45 | 输出单元8上限 | 0x102C | A | 写 |  |  |
| 46 | 输出单元9下限 | 0x102D | A | 写 |  |  |
| 47 | 输出单元9上限 | 0x102E | A | 写 |  |  |
| 48 | 输出单元10下限 | 0x102F | A | 写 |  |  |
| 49 | 输出单元10上限 | 0x1030 | A | 写 |  |  |
| 50 | 输出单元11下限 | 0x1031 | A | 写 |  |  |
| 51 | 输出单元11上限 | 0x1032 | A | 写 |  |  |
| 52 | 输出单元12下限 | 0x1033 | A | 写 |  |  |
| 53 | 输出单元12上限 | 0x1034 | A | 写 |  |  |
| 54 | 输出单元13下限 | 0x1035 | A | 写 |  |  |
| 55 | 输出单元13上限 | 0x1036 | A | 写 |  |  |
| 56 | 输出单元14下限 | 0x1037 | A | 写 |  |  |
| 57 | 输出单元14上限 | 0x1038 | A | 写 |  |  |
| 58 | 输出单元15下限 | 0x1039 | A | 写 |  |  |
| 59 | 输出单元15上限 | 0x103A | A | 写 |  |  |
| 60 | 输出单元16下限 | 0x103B | A | 写 |  |  |
| 61 | 输出单元16上限 | 0x103C | A | 写 |  |  |
| 62 | 输出单元17下限 | 0x103D | A | 写 |  |  |
| 63 | 输出单元17上限 | 0x103E | A | 写 |  |  |
| 64 | 输出单元18下限 | 0x103F | A | 写 |  |  |
| 65 | 输出单元18上限 | 0x1040 | A | 写 |  |  |
| 66 | 输出单元19下限 | 0x1041 | A | 写 |  |  |
| 67 | 输出单元19上限 | 0x1042 | A | 写 |  |  |
| 68 | 输出单元20下限 | 0x1043 | A | 写 |  |  |
| 69 | 输出单元20上限 | 0x1044 | A | 写 |  |  |
| 70 | 输出单元21下限 | 0x1045 | A | 写 |  |  |
| 71 | 输出单元21上限 | 0x1046 | A | 写 |  |  |
| 72 | 输出单元22下限 | 0x1047 | A | 写 |  |  |
| 73 | 输出单元22上限 | 0x1048 | A | 写 |  |  |
| 74 | 输出单元23下限 | 0x1049 | A | 写 |  |  |
| 75 | 输出单元23上限 | 0x104A | A | 写 |  |  |
| 76 | 输出单元24下限 | 0x104B | A | 写 |  |  |
| 77 | 输出单元24上限 | 0x104C | A | 写 |  |  |
| 78 | 输出单元1状态 | 0x104D |  | 写 | 1=关闭  2=开启 |  |
| 79 | 输出单元2状态 | 0x104E |  | 写 |  |
| 80 | 输出单元3状态 | 0x104F |  | 写 |  |
| 81 | 输出单元4状态 | 0x1050 |  | 写 |  |
| 82 | 输出单元5状态 | 0x1051 |  | 写 |  |
| 83 | 输出单元6状态 | 0x1052 |  | 写 |  |
| 84 | 输出单元7状态 | 0x1053 |  | 写 |  |
| 85 | 输出单元8状态 | 0x1054 |  | 写 |  |
| 86 | 输出单元9状态 | 0x1055 |  | 写 |  |
| 87 | 输出单元10状态 | 0x1056 |  | 写 |  |
| 88 | 输出单元11状态 | 0x1057 |  | 写 |  |
| 89 | 输出单元12状态 | 0x1058 |  | 写 |  |
| 90 | 输出单元13状态 | 0x1059 |  | 写 |  |
| 91 | 输出单元14状态 | 0x105A |  | 写 |  |
| 92 | 输出单元15状态 | 0x105B |  | 写 |  |
| 93 | 输出单元16状态 | 0x105C |  | 写 |  |
| 94 | 输出单元17状态 | 0x105D |  | 写 |  |
| 95 | 输出单元18状态 | 0x105E |  | 写 |  |
| 96 | 输出单元19状态 | 0x105F |  | 写 |  |
| 97 | 输出单元20状态 | 0x1060 |  | 写 |  |
| 98 | 输出单元21状态 | 0x1061 |  | 写 |  |
| 99 | 输出单元22状态 | 0x1062 |  | 写 |  |
| 100 | 输出单元23状态 | 0x1063 |  | 写 |  |
| 101 | 输出单元24状态 | 0x1064 |  | 写 |  |
| 102 | 总电能L1 | 0x1065 |  | 写 |  |  |
| 103 | 总电能L2 | 0x1066 |  | 写 |  |  |
| 104 | 总电能L3 | 0x1067 |  | 写 |  |  |
| 105 | 输出单元1电能 | 0x1068 |  |  |  |  |
| 106 | 输出单元2电能 | 0x1069 |  |  |  |  |
| 107 | 输出单元3电能 | 0x106A |  |  |  |  |
| 108 | 输出单元4电能 | 0x106B |  |  |  |  |
| 109 | 输出单元5电能 | 0x106C |  |  |  |  |
| 110 | 输出单元6电能 | 0x106D |  |  |  |  |
| 111 | 输出单元7电能 | 0x106E |  |  |  |  |
| 112 | 输出单元8电能 | 0x106F |  |  |  |  |
| 113 | 输出单元9电能 | 0x1070 |  |  |  |  |
| 114 | 输出单元10电能 | 0x1071 |  |  |  |  |
| 115 | 输出单元11电能 | 0x1072 |  |  |  |  |
| 116 | 输出单元12电能 | 0x1073 |  |  |  |  |
| 117 | 输出单元13电能 | 0x1074 |  |  |  |  |
| 118 | 输出单元14电能 | 0x1075 |  |  |  |  |
| 119 | 输出单元15电能 | 0x1076 |  |  |  |  |
| 120 | 输出单元16电能 | 0x1077 |  |  |  |  |
| 121 | 输出单元17电能 | 0x1078 |  |  |  |  |
| 122 | 输出单元18电能 | 0x1079 |  |  |  |  |
| 123 | 输出单元19电能 | 0x107A |  |  |  |  |
| 124 | 输出单元20电能 | 0x107B |  |  |  |  |
| 125 | 输出单元21电能 | 0x107C |  |  |  |  |
| 126 | 输出单元22电能 | 0x107D |  |  |  |  |
| 127 | 输出单元23电能 | 0x107E |  |  |  |  |
| 128 | 输出单元24电能 | 0x107F |  |  |  |  |
| 129 | 波特率 | 0x1080 |  |  |  |  |
| 130 | 四位一组控制命令（1-4位） | 0x1081 |  |  |  |  |
| 131 | 四位一组控制命令（5-8位） | 0x1082 |  |  |  |  |
| 132 | 四位一组控制命令（9-12位） | 0x1083 |  |  |  |  |
| 133 | 四位一组控制命令（13-16位） | 0x1084 |  |  |  |  |
| 134 | 四位一组控制命令（17-20位） | 0x1085 |  |  |  |  |
| 135 | 四位一组控制命令（21-24位） | 0x1086 |  |  |  |  |
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