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# CY-DB 变频机房空调 Modbus-RTU 通讯协议

深圳市英维克科技股份有限公司

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| 2025-3-31  |                             | 05120714-V2455           | 1、补全告警，电加热过热、气流丢失。<br>2、增加 1#IFoto 泵进出口压差、2#IFoto 泵进出口压差。<br>3、删除部分状态和设定，仅保留连续地址内容和部分需开放内容。 | 张珠锴          |
| 2025-4-9   |                             | 05120714-V2455           | 1、调整协议文件格式。                                                                                 | 李一帆          |
| 2025-5-9   |                             | 05120714-V2467           | 1、增加 1、2#室外排水阀状态。                                                                           | 卢申生          |

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# CY-DB 变频机房空调 Modbus-RTU 通讯协议

## 1 说明

本协议描述了空调与其专用上位机监控模块进行命令控制和数据交换的协议。

《协议》中规定的功能主要有：

- 1) 上位机通过发读取命令获取空调的相关信息；
- 2) 上位机通过发写命令设置相关参数和动作控制；

通讯过程以上位机为主节点，通过一问一答的方式进行信息交互；从节点中的各种信息和参数均以目标寄存器作为存储地址，主节点通过访问寄存器的方式完成读写命令。本协议支持一个主节点、多个从节点组网，从节点以地址来区分，地址设置范围为1-128, 不同的从节点对应不同的地址，不能有相同地址的从节点挂在同一条通讯总线上。

## 2 专用术语

主节点：后台监控系统。

从节点：空调设备控制器。

RS485：一种串行通讯标准，可支持半双工串行近程通讯；

读命令：由主节点发向从节点，使从节点返回对应的寄存器的内容；

写命令：由主节点打包相关参数，发向从节点，完成对应参数的设置；

寄存器地址：从节点的每个信号和参数均对应一个 2 字节的地址，主节点获取相关信息或设置相关参数均是以访问这些寄存器的方式来完成，这个地址就称为寄存器。

## 3 物理接口

### 3.1 串行通信口电气标准

从节点以 RS485 方式通过串口与主节点通讯。

## 3.2 信息传输方式

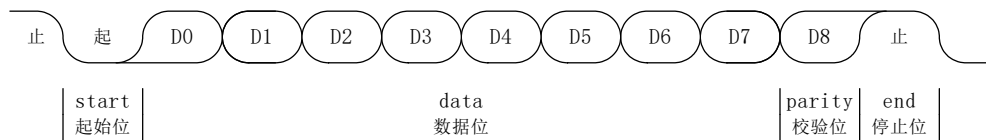
通讯传输采用异步方式，并以字节帧(数据帧)为单位。在主节点和从节点之间传递的每一个数据帧都是11位的串行数据流。

数据帧格式：

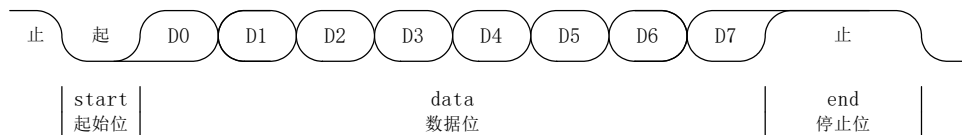
|       |                     |
|-------|---------------------|
| 起始位   | 1位                  |
| 数据位   | 8位(低位在前、高位在后)       |
| 奇偶校验位 | 无：本协议不采用奇偶校验位；      |
| 停止位   | 1位（即实际的奇偶校验位强制为高电平） |

参考：

有校验位的时序图：



无校验位的时序图：



## 3.3 数据传输速率

缺省波特率使用9600bps

# 4 物理层通信方式

## 4.1 基本过程

从节点上电或复位，稳定运行后，即可响应主节点的读写命令；当从节点接收到相关命令后，正常情况下返回主节点所需的信息，异常情况返回具体错误类型对应的错误码。

## 5 应用层命令类型及格式

当通讯命令发送至仪器时，符合相应的地址码的设备接收通讯命令，读取信息，如果没有出错，则执行相应的任务；然后把执行结果返送给发送者。返送的信息中包括地址码、执行动作的功能码、执行动作后的数据以及错误校验码(CRC)。如果出错就不发送任何信息。

### 5.1 信息帧格式

|                         |             |             |                        |              |                         |
|-------------------------|-------------|-------------|------------------------|--------------|-------------------------|
| START                   | ADDR        | CMD         | DATA                   | CRC          | END                     |
| 起始                      | 地址码         | 功能码         | 数据                     | 错误校验         | 结束                      |
| 延时 ( $\geq 3.5$ 个字符的时间) | 1 字节<br>8 位 | 1 字节<br>8 位 | N 字节<br>$N \times 8$ 位 | 2 字节<br>16 位 | 延时 ( $\geq 3.5$ 个字符的时间) |

注1：最大帧长不大于255个字节；

注2：CRC校验码低字节在前，高字节在后；

### 5.2 功能码

功能码 (CMD) 是每次通讯传送的信息帧中的第二个数据帧。ModBus通讯规约定义功能码为1~127 (01H~7FH)。本协议利用其中的一部分功能码。作为主节点请求发送，通过功能码告诉从节点执行什么动作。作为从节点响应，从节点发送的功能码与主节点发送来的功能码一样，并表明从节点已响应主节点进行操作。如果从节点发送的功能码的最高位是1 (功能码 $>127$ )，则表明从节点没有响应或出错。

| 命令编码 | 含义       | 备注             |
|------|----------|----------------|
| 0x03 | 读命令      | 支持单个和多个寄存器连续读取 |
| 0x10 | 写多个寄存器命令 | 支持多个寄存器连续写动作   |
| 0x06 | 写单个寄存器命令 | 支持单个寄存器连续写动作   |

### 5.3 读命令格式

注3：MSB表示高字节；LSB表示低字节。

注4：每个寄存器存放两个字节；对寄存器数据类型为一个字节的数据，要求存放在低字节 (LSB)。

主节点发送帧格式：

|      |       |      |         |     |         |     |        |     |
|------|-------|------|---------|-----|---------|-----|--------|-----|
| 序号   | 0     | 1    | 2       | 3   | 4       | 5   | 6      | 7   |
| 字段定义 | ADDR  | CMD  | MSB     | LSB | MSB     | LSB | LSB    | MSB |
| 解释   | 控制器地址 | 命令类型 | 寄存器起始地址 |     | 寄存器个数 n |     | CRC 校验 |     |

从节点正常应答帧格式：

|      |       |      |                  |          |     |          |     |     |           |     |        |     |
|------|-------|------|------------------|----------|-----|----------|-----|-----|-----------|-----|--------|-----|
| 序号   | 0     | 1    | 2                | 3        | 4   | 5        | 6   | ... | L+1       | L+2 | L+3    | L+4 |
| 字段定义 | ADDR  | CMD  | Length           | MSB      | LSB | MSB      | LSB | ... | MSB       | LSB | LSB    | MSB |
| 解释   | 控制器地址 | 命令类型 | 发送字节数<br>$L=n*2$ | 第一个寄存器的值 |     | 第二个寄存器的值 |     | ... | 最后一个寄存器的值 |     | CRC 校验 |     |

从节点异常应答格式：

| 序号   | 0     | 1         | 2          | 3      | 4   |
|------|-------|-----------|------------|--------|-----|
| 字段定义 | ADDR  | CMD + 128 | ErrCode    | LSB    | MSB |
| 解释   | 控制器地址 | 命令类型 +128 | Error Code | CRC 校验 |     |

## 5.4 写单个寄存器命令格式

主节点发送帧格式：

|      |       |      |       |     |     |     |        |     |
|------|-------|------|-------|-----|-----|-----|--------|-----|
| 序号   | 0     | 1    | 2     | 3   | 4   | 5   | 6      | 7   |
| 字段定义 | ADDR  | CMD  | MSB   | LSB | MSB | LSB | LSB    | MSB |
| 解释   | 控制器地址 | 命令类型 | 寄存器地址 |     | 数据  |     | CRC 校验 |     |

从节点正常应答帧格式：

|      |       |      |       |     |     |     |        |     |
|------|-------|------|-------|-----|-----|-----|--------|-----|
| 序号   | 0     | 1    | 2     | 3   | 4   | 5   | 6      | 7   |
| 字段定义 | ADDR  | CMD  | MSB   | LSB | MSB | LSB | LSB    | MSB |
| 解释   | 控制器地址 | 命令类型 | 寄存器地址 |     | 数据  |     | CRC 校验 |     |

从节点异常应答格式：

|      |       |           |   |            |        |     |   |   |
|------|-------|-----------|---|------------|--------|-----|---|---|
| 序号   | 0     | 1         | 2 | 3          | 4      | 5   | 6 | 7 |
| 字段定义 | ADDR  | CMD +128  |   | ErrCode    | LSB    | MSB |   |   |
| 解释   | 控制器地址 | 命令类型 +128 |   | Error Code | CRC 校验 |     |   |   |

## 5.5 写多个寄存器命令格式

主节点发送帧格式：

|      |       |      |         |     |        |     |                    |          |     |
|------|-------|------|---------|-----|--------|-----|--------------------|----------|-----|
| 序号   | 0     | 1    | 2       | 3   | 4      | 5   | 6                  | 7        | 8   |
| 字段定义 | ADDR  | CMD  | MSB     | LSB | MSB    | LSB | Length             | MSB      | LSB |
| 解释   | 控制器地址 | 命令类型 | 起始寄存器地址 |     | 寄存器数 n |     | 发送字节数<br>$L = n*2$ | 第一个寄存器的值 |     |

|      |          |     |     |           |     |        |     |
|------|----------|-----|-----|-----------|-----|--------|-----|
| 序号   | 9        | 10  | ... | L+5       | L+6 | L+7    | L+8 |
| 字段定义 | MSB      | LSB | ... | MSB       | LSB | LSB    | MSB |
| 解释   | 第二个寄存器的值 |     | ... | 最后一个寄存器的值 |     | CRC 校验 |     |

从节点正常应答帧格式:

|      |       |      |         |     |       |     |        |     |
|------|-------|------|---------|-----|-------|-----|--------|-----|
| 序号   | 0     | 1    | 2       | 3   | 4     | 5   | 6      | 7   |
| 字段定义 | ADDR  | CMD  | MSB     | LSB | MSB   | LSB | LSB    | MSB |
| 解释   | 控制器地址 | 命令类型 | 起始寄存器地址 |     | 寄存器个数 |     | CRC 校验 |     |

从节点异常应答帧格式:

|      |       |           |            |        |     |
|------|-------|-----------|------------|--------|-----|
| 序号   | 0     | 1         | 2          | 3      | 4   |
| 字段定义 | ADDR  | CMD +128  | ErrCode    | LSB    | MSB |
| 解释   | 控制器地址 | 命令类型 +128 | Error Code | CRC 校验 |     |

说明: CRC校验范围为CRC字段前所有字节的校验。

## 5.6 协议指令举例

举例:

①读取单个寄存器的值-版本信息:

发送指令: 01 03 00 01 00 01 D5 CA

返回指令: 01 03 02 02 10 B8 E8

解析指令: 01 控制器地址

03 命令类型-读命令

02 发送字节数

02 10 返回寄存器的值

B8 E8 校验

②读取多个寄存器的值-1#-2#-3#回风温度:

发送指令: 01 03 00 02 00 03 A4 0B

返回指令: 01 03 06 01 1F 01 16 01 12 D4 C3

解析指令: 01 控制器地址

03 命令类型-读命令

06 发送字节数

01 1F 返回的1#回风温度: 十进制287→28.7℃

01 16 返回的2#回风温度: 十进制278→27.8℃

01 12 返回的3#回风温度: 十进制274→27.4℃

D4 C3 校验

③写单个寄存器的值-温度设定点30℃:

发送指令: 01 06 00 C6 01 2C 69 BA

返回指令: 01 06 00 C6 01 2C 69 BA

解析指令：01 控制器地址  
06 命令类型-写单个寄存器  
00 C6 寄存器地址  
01 2C 数据：十进制300→30℃  
69 BA 校验

## 5.7 错误码定义

当从节点设备向主节点设备发送请求时，从节点希望一个正常响应。从主节点询问中出现下列四种可能事件之一：

- 1) 如果从节点设备接收到无通信错误的请求，并且可以正常地处理询问，那么从节点设备将返回一个正常响应；
- 2) 如果由于通信错误，从节点没有接收到请求，那么不能返回响应。主节点程序将最终处理请求的超时状态；
- 3) 如果从节点接收到请求，但是检测到一个通信错误（奇偶校验、LRC、CRC、...），那么不能返回响应。主节点程序将最终处理请求的超时状态；
- 4) 如果从节点接收到无通信错误的请求，但不能处理这个请求（例如，如果请求读一个不存在的输出或寄存器），从节点将返回一个异常响应，通知用户错误的本质特性；

异常响应报文有两个与正常响应不同的域：

**功能码域：**在正常响应中，从节点利用响应功能码域来应答最初请求的功能码。所有功能码的最高有效位（MSB）都为0（它们的值都低于128）。在异常响应中，从节点设置功能码的MSB为1。这使得异常响应中的功能码值比正常响应中的功能码值高128。

通过设置功能码的MSB，主节点的应用程序能够识别异常响应，并且能够检测异常码的数据域。

**数据域：**在正常响应中，从节点可以返回数据域中数据或统计表（请求中要求的任何报文）。在异常响应中，从节点返回数据域中的异常码。这就定义了产生异常的从节点状态。

### MODBUS 异常码：

| 异常码名称 | 说 明 |
|-------|-----|
|-------|-----|

|           |                                                                                                                          |
|-----------|--------------------------------------------------------------------------------------------------------------------------|
| 01 非法功能码  | 对于从节点来说，询问中接收到的功能码是不可允许的操作。这也许是因为功能码仅仅适用于新设备而在被选单元中是不可实现的。同时，还指出从节点在错误状态中处理这种请求，例如：因为它是未配置的，并且要求返回寄存器值。                  |
| 02 非法数据地址 | 对于从节点来说，询问中接收到的数据地址是不可允许的地址。特别是，参考号和传输长度的组合是无效的。对于带有100个寄存器的控制器来说，带有偏移量96和长度4的请求会成功，带有偏移量96和长度5的请求将产生异常码02。              |
| 03 非法数据值  | 对于从节点来说，询问中包括的值是不可允许的值。这个值指示了组合请求剩余结构中的故障，例如：隐含长度是不正确的。并不意味着，因为MODBUS协议不知道任何特殊寄存器的任何特殊值的重要意义，寄存器中被提交存储的数据项有一个应用程序期望之外的值。 |

## 6 CRC 校验算法

### 6.1 CRC 算法

```

unsigned short count_CRC(unsigned char *addr, int num)
{
    unsigned short CRC = 0xFFFF;

    int i;
    while (num--)
    {
        CRC ^= *addr++;
        for (i = 0; i < 8; i++)
        {
            CRC = (CRC & 0x0001) ? ((CRC>>1)^0xA001) : (CRC>>1);
        }
    }

    return CRC;
}

```

}

## 7 寄存器列表

约定：

- 1、每个寄存器存放两个字节。
- 2、数据传输方式：高字节在前，低字节在后

| 序号 | 数据         | 单位  | 寄存器地址  | 属 性<br>(读/写) | 变比    | 备注 |
|----|------------|-----|--------|--------------|-------|----|
| 1  | 软件版本       |     | 0x0001 | 只读           | x1    |    |
| 2  | 1#回风温度     | ℃   | 0x0002 | 只读           | x10   |    |
| 3  | 2#回风温度     | ℃   | 0x0003 | 只读           | x10   |    |
| 4  | 3#回风温度     | ℃   | 0x0004 | 只读           | x10   |    |
| 5  | 1#出风温度     | ℃   | 0x0005 | 只读           | x10   |    |
| 6  | 2#出风温度     | ℃   | 0x0006 | 只读           | x10   |    |
| 7  | 3#出风温度     | ℃   | 0x0007 | 只读           | x10   |    |
| 8  | 1#回风湿度     | %   | 0x0008 | 只读           | x10   |    |
| 9  | 2#回风湿度     | %   | 0x0009 | 只读           | x10   |    |
| 10 | 3#回风湿度     | %   | 0x000A | 只读           | x10   |    |
| 11 | 1#出风湿度     | %   | 0x000B | 只读           | x10   |    |
| 12 | 2#出风湿度     | %   | 0x000C | 只读           | x10   |    |
| 13 | 3#出风湿度     | %   | 0x000D | 只读           | x10   |    |
| 14 | 滤网前后压差     | Pa  | 0x000E | 只读           | x10   |    |
| 15 | 冷热通道压差     | Pa  | 0x000F | 只读           | x10   |    |
| 16 | 电网电压       | V   | 0x0010 | 只读           | x1    |    |
| 17 | 加湿电流       | A   | 0x0011 | 只读           | x1000 |    |
| 18 | 1#盘管进水温度   | ℃   | 0x0012 | 只读           | x10   |    |
| 19 | 2#盘管进水温度   | ℃   | 0x0013 | 只读           | x10   |    |
| 20 | 1#盘管出水温度   | ℃   | 0x0014 | 只读           | x10   |    |
| 21 | 2#盘管出水温度   | ℃   | 0x0015 | 只读           | x10   |    |
| 22 | 1#储液器液位高度  | mm  | 0x0016 | 只读           | x1    |    |
| 23 | 2#储液器液位高度  | mm  | 0x0017 | 只读           | x1    |    |
| 24 | 喷雾模块 室外温度  | ℃   | 0x0018 | 只读           | x10   |    |
| 25 | 喷雾模块 泵出口压力 | kPa | 0x0019 | 只读           | x1    |    |
| 26 | 1#泵柜室外温度   | ℃   | 0x001A | 只读           | x10   |    |
| 27 | 2#泵柜室外温度   | ℃   | 0x001B | 只读           | x10   |    |
| 28 | 1#氟泵出口温度   | ℃   | 0x001C | 只读           | x10   |    |
| 29 | 2#氟泵出口温度   | ℃   | 0x001D | 只读           | x10   |    |
| 30 | 1#氟泵扬程     | Bar | 0x001E | 只读           | x100  |    |

|    |                  |     |        |    |      |              |
|----|------------------|-----|--------|----|------|--------------|
| 31 | 2#氟泵扬程           | Bar | 0x001F | 只读 | x100 |              |
| 32 | 1#外扩温度           | ℃   | 0x0020 | 只读 | x10  |              |
| 33 | 1#外扩湿度           | %   | 0x0021 | 只读 | x10  |              |
| 34 | 1#外扩温湿度传感器回出风类型  |     | 0x0022 | 只读 | x1   | 0 出风<br>1 回风 |
| 35 | 2#外扩温度           | ℃   | 0x0023 | 只读 | x10  |              |
| 36 | 2#外扩湿度           | %   | 0x0024 | 只读 | x10  |              |
| 37 | 2#外扩温湿度传感器回出风类型  |     | 0x0025 | 只读 | x1   | 0 出风<br>1 回风 |
| 38 | 3#外扩温度           | ℃   | 0x0026 | 只读 | x10  |              |
| 39 | 3#外扩湿度           | %   | 0x0027 | 只读 | x10  |              |
| 40 | 3#外扩温湿度传感器回出风类型  |     | 0x0028 | 只读 | x1   | 0 出风<br>1 回风 |
| 41 | 4#外扩温度           | ℃   | 0x0029 | 只读 | x10  |              |
| 42 | 4#外扩湿度           | %   | 0x002A | 只读 | x10  |              |
| 43 | 4#外扩温湿度传感器回出风类型  |     | 0x002B | 只读 | x1   | 0 出风<br>1 回风 |
| 44 | 5#外扩温度           | ℃   | 0x002C | 只读 | x10  |              |
| 45 | 5#外扩湿度           | %   | 0x002D | 只读 | x10  |              |
| 46 | 5#外扩温湿度传感器回出风类型  |     | 0x002E | 只读 | x1   | 0 出风<br>1 回风 |
| 47 | 6#外扩温度           | ℃   | 0x002F | 只读 | x10  |              |
| 48 | 6#外扩湿度           | %   | 0x0030 | 只读 | x10  |              |
| 49 | 6#外扩温湿度传感器回出风类型  |     | 0x0031 | 只读 | x1   | 0 出风<br>1 回风 |
| 50 | 7#外扩温度           | ℃   | 0x0032 | 只读 | x10  |              |
| 51 | 7#外扩湿度           | %   | 0x0033 | 只读 | x10  |              |
| 52 | 7#外扩温湿度传感器回出风类型  |     | 0x0034 | 只读 | x1   | 0 出风<br>1 回风 |
| 53 | 8#外扩温度           | ℃   | 0x0035 | 只读 | x10  |              |
| 54 | 8#外扩湿度           | %   | 0x0036 | 只读 | x10  |              |
| 55 | 8#外扩温湿度传感器回出风类型  |     | 0x0037 | 只读 | x1   | 0 出风<br>1 回风 |
| 56 | 9#外扩温度           | ℃   | 0x0038 | 只读 | x10  |              |
| 57 | 9#外扩湿度           | %   | 0x0039 | 只读 | x10  |              |
| 58 | 9#外扩温湿度传感器回出风类型  |     | 0x003A | 只读 | x1   | 0 出风<br>1 回风 |
| 59 | 10#外扩温度          | ℃   | 0x003B | 只读 | x10  |              |
| 60 | 10#外扩湿度          | %   | 0x003C | 只读 | x10  |              |
| 61 | 10#外扩温湿度传感器回出风类型 |     | 0x003D | 只读 | x1   | 0 出风<br>1 回风 |
| 62 | 11#外扩温度          | ℃   | 0x003E | 只读 | x10  |              |
| 63 | 11#外扩湿度          | %   | 0x003F | 只读 | x10  |              |

|    |                      |   |        |    |     |                                          |
|----|----------------------|---|--------|----|-----|------------------------------------------|
| 64 | 11#外扩温湿度传感器回出<br>风类型 |   | 0x0040 | 只读 | x1  | 0 出风<br>1 回风                             |
| 65 | 12#外扩温度              | ℃ | 0x0041 | 只读 | x10 |                                          |
| 66 | 12#外扩湿度              | % | 0x0042 | 只读 | x10 |                                          |
| 67 | 12#外扩温湿度传感器回出<br>风类型 |   | 0x0043 | 只读 | x1  | 0 出风<br>1 回风                             |
| 68 | 13#外扩温度              | ℃ | 0x0044 | 只读 | x10 |                                          |
| 69 | 13#外扩湿度              | % | 0x0045 | 只读 | x10 |                                          |
| 70 | 13#外扩温湿度传感器回出<br>风类型 |   | 0x0046 | 只读 | x1  | 0 出风<br>1 回风                             |
| 71 | 14#外扩温度              | ℃ | 0x0047 | 只读 | x10 |                                          |
| 72 | 14#外扩湿度              | % | 0x0048 | 只读 | x10 |                                          |
| 73 | 14#外扩温湿度传感器回出<br>风类型 |   | 0x0049 | 只读 | x1  | 0 出风<br>1 回风                             |
| 74 | 15#外扩温度              | ℃ | 0x004A | 只读 | x10 |                                          |
| 75 | 15#外扩湿度              | % | 0x004B | 只读 | x10 |                                          |
| 76 | 15#外扩温湿度传感器回出<br>风类型 |   | 0x004C | 只读 | x1  | 0 出风<br>1 回风                             |
| 77 | 16#外扩温度              | ℃ | 0x004D | 只读 | x10 |                                          |
| 78 | 16#外扩湿度              | % | 0x004E | 只读 | x10 |                                          |
| 79 | 16#外扩温湿度传感器回出<br>风类型 |   | 0x004F | 只读 | x1  | 0 出风<br>1 回风                             |
| 80 | 17#外扩温度              | ℃ | 0x0050 | 只读 | x10 |                                          |
| 81 | 17#外扩湿度              | % | 0x0051 | 只读 | x10 |                                          |
| 82 | 17#外扩温湿度传感器回出<br>风类型 |   | 0x0052 | 只读 | x1  | 0 出风<br>1 回风                             |
| 83 | 18#外扩温度              | ℃ | 0x0053 | 只读 | x10 |                                          |
| 84 | 18#外扩湿度              | % | 0x0054 | 只读 | x10 |                                          |
| 85 | 18#外扩温湿度传感器回出<br>风类型 |   | 0x0055 | 只读 | x1  | 0 出风<br>1 回风                             |
| 86 | 1#内风机转速              | % | 0x0056 | 只读 | x10 | 内风机转速单<br>位 可 选 配 为<br>RPM, 此时系数<br>为 x1 |
| 87 | 2#内风机转速              | % | 0x0057 | 只读 | x10 |                                          |
| 88 | 3#内风机转速              | % | 0x0058 | 只读 | x10 |                                          |
| 89 | 4#内风机转速              | % | 0x0059 | 只读 | x10 |                                          |
| 90 | 5#内风机转速              | % | 0x005A | 只读 | x10 |                                          |
| 91 | 6#内风机转速              | % | 0x005B | 只读 | x10 |                                          |
| 92 | 7#内风机转速              | % | 0x005C | 只读 | x10 |                                          |
| 93 | 8#内风机转速              | % | 0x005D | 只读 | x10 |                                          |
| 94 | 9#内风机转速              | % | 0x005E | 只读 | x10 |                                          |
| 95 | 10#内风机转速             | % | 0x005F | 只读 | x10 |                                          |

|     |            |                   |        |    |       |                             |
|-----|------------|-------------------|--------|----|-------|-----------------------------|
| 96  | 11#内风机转速   | %                 | 0x0060 | 只读 | x10   |                             |
| 97  | 12#内风机转速   | %                 | 0x0061 | 只读 | x10   |                             |
| 98  | 13#内风机转速   | %                 | 0x0062 | 只读 | x10   |                             |
| 99  | 14#内风机转速   | %                 | 0x0063 | 只读 | x10   |                             |
| 100 | 15#内风机转速   | %                 | 0x0064 | 只读 | x10   |                             |
| 101 | 16#内风机转速   | %                 | 0x0065 | 只读 | x10   |                             |
| 102 | 1#水阀/1#外风机 | %                 | 0x0066 | 只读 | x10   |                             |
| 103 | 2#水阀/2#外风机 | %                 | 0x0067 | 只读 | x10   |                             |
| 104 | 1#压缩机状态    |                   | 0x0068 | 只读 | x1    | 0 关闭<br>1 运行                |
| 105 | 2#压缩机状态    |                   | 0x0069 | 只读 | x1    | 0 关闭<br>1 运行                |
| 106 | 1#压缩机频率    | Hz                | 0x006A | 只读 | x1    |                             |
| 107 | 2#压缩机频率    | Hz                | 0x006B | 只读 | x1    |                             |
| 108 | 加热状态       |                   | 0x006C | 只读 | x1    | 0 关闭<br>1 运行                |
| 109 | 加湿状态       |                   | 0x006D | 只读 | x1    | 0 关闭<br>1 运行                |
| 110 | 除湿状态       |                   | 0x006E | 只读 | x1    | 0 关闭<br>1 运行                |
| 111 | 内风机转速      | %                 | 0x006F | 只读 | x10   |                             |
| 112 | 机组运行功率     | kW                | 0x0070 | 只读 | x1000 |                             |
| 113 | 功耗低位字      | kWh               | 0x0071 | 只读 | x1000 |                             |
| 114 | 功耗高位字      | kWh               | 0x0072 | 只读 | x1000 |                             |
| 115 | 制冷量        | kW                | 0x0073 | 只读 | x10   |                             |
| 116 | 能效比        |                   | 0x0074 | 只读 | x10   |                             |
| 117 | 风量（低字节）    | m <sup>3</sup> /h | 0x0075 | 只读 | x1    |                             |
| 118 | 风量（高字节）    | m <sup>3</sup> /h | 0x0076 | 只读 | x1    |                             |
| 119 | 1#变频器电流    | A                 | 0x0077 | 只读 | x10   |                             |
| 120 | 2#变频器电流    | A                 | 0x0078 | 只读 | x10   |                             |
| 121 | S1 开关状态    |                   | 0x0079 | 只读 | x1    | 0 分闸<br>1 合闸<br>2 脱扣        |
| 122 | S2 开关状态    |                   | 0x007A | 只读 | x1    | 0 分闸<br>1 合闸<br>2 脱扣        |
| 123 | 主电选择       |                   | 0x007B | 只读 | x1    | 0 S1<br>1 S2                |
| 124 | 工作模式       |                   | 0x007C | 只读 | x1    | 0 自投自复<br>1 自投不自复<br>2 互为备用 |
| 125 | 喷雾模块水泵运行状态 |                   | 0x007D | 只读 | x1    | 0 关闭<br>1 运行                |

|     |                |  |        |    |    |                                      |
|-----|----------------|--|--------|----|----|--------------------------------------|
| 126 | 喷雾模块 1#电磁阀运行状态 |  | 0x007E | 只读 | x1 | 0 关闭<br>1 运行                         |
| 127 | 喷雾模块 2#电磁阀运行状态 |  | 0x007F | 只读 | x1 | 0 关闭<br>1 运行                         |
| 128 | 喷雾模块旁通阀运行状态    |  | 0x0080 | 只读 | x1 | 0 关闭<br>1 运行                         |
| 129 | 喷雾模块排水阀运行状态    |  | 0x0081 | 只读 | x1 | 0 关闭<br>1 运行                         |
| 130 | 1#氟泵           |  | 0x0082 | 只读 | x1 | 0 关闭<br>1 运行                         |
| 131 | 2#氟泵           |  | 0x0083 | 只读 | x1 | 0 关闭<br>1 运行                         |
| 132 | 1#制冷状态         |  | 0x0084 | 只读 | x1 | 0 无<br>1 IF 运行<br>2 DX 运行<br>3 IF+DX |
| 133 | 2#制冷状态         |  | 0x0085 | 只读 | x1 | 0 无<br>1 IF 运行<br>2 DX 运行<br>3 IF+DX |
| 134 | 加湿注水阀          |  | 0x0086 | 只读 | x1 | 0 关闭<br>1 运行                         |
| 135 | 加湿排水阀          |  | 0x0087 | 只读 | x1 | 0 关闭<br>1 运行                         |
| 136 | 1#机组           |  | 0x0088 | 只读 | x1 | 0 掉线<br>1 运行<br>2 备机<br>3 无          |
| 137 | 2#机组           |  | 0x0089 | 只读 | x1 |                                      |
| 138 | 3#机组           |  | 0x008A | 只读 | x1 |                                      |
| 139 | 4#机组           |  | 0x008B | 只读 | x1 |                                      |
| 140 | 5#机组           |  | 0x008C | 只读 | x1 |                                      |
| 141 | 6#机组           |  | 0x008D | 只读 | x1 |                                      |
| 142 | 7#机组           |  | 0x008E | 只读 | x1 |                                      |
| 143 | 8#机组           |  | 0x008F | 只读 | x1 |                                      |
| 144 | 9#机组           |  | 0x0090 | 只读 | x1 |                                      |
| 145 | 10#机组          |  | 0x0091 | 只读 | x1 |                                      |
| 146 | 11#机组          |  | 0x0092 | 只读 | x1 |                                      |
| 147 | 12#机组          |  | 0x0093 | 只读 | x1 |                                      |
| 148 | 13#机组          |  | 0x0094 | 只读 | x1 |                                      |
| 149 | 14#机组          |  | 0x0095 | 只读 | x1 |                                      |
| 150 | 15#机组          |  | 0x0096 | 只读 | x1 |                                      |
| 151 | 16#机组          |  | 0x0097 | 只读 | x1 |                                      |

|     |              |     |        |    |      |  |
|-----|--------------|-----|--------|----|------|--|
| 152 | 17#机组        |     | 0x0098 | 只读 | x1   |  |
| 153 | 18#机组        |     | 0x0099 | 只读 | x1   |  |
| 154 | 19#机组        |     | 0x009A | 只读 | x1   |  |
| 155 | 20#机组        |     | 0x009B | 只读 | x1   |  |
| 156 | 21#机组        |     | 0x009C | 只读 | x1   |  |
| 157 | 1#吸气温度       | ℃   | 0x009D | 只读 | x10  |  |
| 158 | 2#吸气温度       | ℃   | 0x009E | 只读 | x10  |  |
| 159 | 1#排气温度       | ℃   | 0x009F | 只读 | x10  |  |
| 160 | 2#排气温度       | ℃   | 0x00A0 | 只读 | x10  |  |
| 161 | 1#低压压力       | bar | 0x00A1 | 只读 | x100 |  |
| 162 | 2#低压压力       | bar | 0x00A2 | 只读 | x100 |  |
| 163 | 1#冷凝压力       | bar | 0x00A3 | 只读 | x100 |  |
| 164 | 2#冷凝压力       | bar | 0x00A4 | 只读 | x100 |  |
| 165 | 1#DX/IF-EEV1 | St  | 0x00A5 | 只读 | x1   |  |
| 166 | 1#DX/IF-EEV2 | St  | 0x00A6 | 只读 | x1   |  |
| 167 | 2#DX/IF-EEV1 | St  | 0x00A7 | 只读 | x1   |  |
| 168 | 2#DX/IF-EEV2 | St  | 0x00A8 | 只读 | x1   |  |
| 169 | 1#泵进口压力      | bar | 0x00A9 | 只读 | x100 |  |
| 170 | 2#泵进口压力      | bar | 0x00AA | 只读 | x100 |  |
| 171 | 1#泵出口压力      | bar | 0x00AB | 只读 | x100 |  |
| 172 | 2#泵出口压力      | bar | 0x00AC | 只读 | x100 |  |
| 173 | 1#泵出口温度      | ℃   | 0x00AD | 只读 | x10  |  |
| 174 | 2#泵出口温度      | ℃   | 0x00AE | 只读 | x10  |  |
| 175 | 1#室内液管温度     | ℃   | 0x00AF | 只读 | x10  |  |
| 176 | 2#室内液管温度     | ℃   | 0x00B0 | 只读 | x10  |  |
| 177 | 1#室外温度       | ℃   | 0x00B1 | 只读 | x10  |  |
| 178 | 2#室外温度       | ℃   | 0x00B2 | 只读 | x10  |  |
| 179 | 1#IF 频率      | Hz  | 0x00B3 | 只读 | x1   |  |
| 180 | 2#IF 频率      | Hz  | 0x00B4 | 只读 | x1   |  |
| 181 | 1#补充 EEV1    | St  | 0x00B5 | 只读 | x1   |  |
| 182 | 1#补充 EEV2    | St  | 0x00B6 | 只读 | x1   |  |
| 183 | 2#补充 EEV1    | St  | 0x00B7 | 只读 | x1   |  |
| 184 | 2#补充 EEV2    | St  | 0x00B8 | 只读 | x1   |  |
| 185 | 制冷运行时间       | 小时  | 0x00B9 | 只读 | x1   |  |
| 186 | 加热运行时间       | 小时  | 0x00BA | 只读 | x1   |  |
| 187 | 除湿运行时间       | 小时  | 0x00BB | 只读 | x1   |  |
| 188 | 加湿运行时间       | 小时  | 0x00BC | 只读 | x1   |  |
| 189 | 送风运行时间       | 小时  | 0x00BD | 只读 | x1   |  |
| 190 | 节能 IF 运行时间   | 小时  | 0x00BE | 只读 | x1   |  |
| 191 | 制冷动作次数       | 次   | 0x00BF | 只读 | x1   |  |
| 192 | 加热动作次数       | 次   | 0x00C0 | 只读 | x1   |  |
| 193 | 除湿动作次数       | 次   | 0x00C1 | 只读 | x1   |  |
| 194 | 加湿动作次数       | 次   | 0x00C2 | 只读 | x1   |  |

|     |            |    |        |     |     |                                                                    |
|-----|------------|----|--------|-----|-----|--------------------------------------------------------------------|
| 195 | 送风动作次数     | 次  | 0x00C3 | 只读  | x1  |                                                                    |
| 196 | 节能 IF 动作次数 | 次  | 0x00C4 | 只读  | x1  |                                                                    |
| 197 | 制冷控制方式     |    | 0x00C5 | 读/写 | x1  | 0 回风平均<br>1 出风平均<br>2 回风热点<br>3 出风热点                               |
| 198 | 制冷设定点      | ℃  | 0x00C6 | 读/写 | x10 | 7~45℃                                                              |
| 199 | 制冷灵敏度      | ℃  | 0x00C7 | 读/写 | x10 | 1~10℃                                                              |
| 200 | 加热设定点      | ℃  | 0x00C8 | 读/写 | x10 | -40~45℃                                                            |
| 201 | 加热灵敏度      | ℃  | 0x00C9 | 读/写 | x10 | 1~10℃                                                              |
| 202 | 湿度控制方式     |    | 0x00CA | 读/写 | x1  | 0 回风湿度<br>1 出风湿度                                                   |
| 203 | 除湿设定点      | %  | 0x00CB | 读/写 | x10 | 10~90%                                                             |
| 204 | 除湿灵敏度      | %  | 0x00CC | 读/写 | x10 | 3~20%                                                              |
| 205 | 湿度/加湿设定点   | %  | 0x00CD | 读/写 | x10 | 10~90%                                                             |
| 206 | 加湿灵敏度      | %  | 0x00CE | 读/写 | x10 | 3~20%                                                              |
| 207 | 风机控制方式     |    | 0x00CF | 读/写 | x1  | 0 回风平均<br>1 出风平均<br>2 回风热点<br>3 出风热点<br>4 温差平均<br>5 温差热点<br>6 压差控制 |
| 208 | 风机设定点      | ℃  | 0x00D0 | 读/写 | x10 | 7~45℃                                                              |
| 209 | 压差设定点      | Pa | 0x00D1 | 读/写 | x10 | 1~99.9Pa                                                           |
| 210 | 风机温差灵敏度    | ℃  | 0x00D2 | 读/写 | x10 | 0~10℃                                                              |
| 211 | 回风高温告警设定点  | ℃  | 0x00D3 | 读/写 | x10 | 20~70℃                                                             |
| 212 | 回风低温告警设定点  | ℃  | 0x00D4 | 读/写 | x10 | -20~20℃                                                            |
| 213 | 回风高湿告警设定点  | %  | 0x00D5 | 读/写 | x10 | 50~95%                                                             |
| 214 | 回风低湿告警设定点  | %  | 0x00D6 | 读/写 | x10 | 1~50%                                                              |
| 215 | 出风高温告警设定点  | ℃  | 0x00D7 | 读/写 | x10 | 18~45℃                                                             |
| 216 | 出风低温告警设定点  | ℃  | 0x00D8 | 读/写 | x10 | -20~18℃                                                            |
| 217 | 出风高湿告警设定点  | %  | 0x00D9 | 读/写 | x10 | 60~90%                                                             |
| 218 | 出风低湿告警设定点  | %  | 0x00DA | 读/写 | x10 | 1~60%                                                              |
| 219 | 群控模式       |    | 0x00DB | 读/写 | x1  | 0 独立<br>1 群控                                                       |
| 220 | 本机地址       |    | 0x00DC | 读/写 | x1  | 1~21                                                               |
| 221 | 主备模式       |    | 0x00DD | 读/写 | x1  | 0 自动<br>1 主机<br>2 备机                                               |
| 222 | 成员数量       |    | 0x00DE | 读/写 | x1  | 1~21                                                               |
| 223 | 备机数量       |    | 0x00DF | 读/写 | x1  | 0~21                                                               |
| 224 | 轮巡时间       | 小时 | 0x00E0 | 读/写 | x1  | 1~120 小时                                                           |

|      |                    |     |               |     |     |                               |
|------|--------------------|-----|---------------|-----|-----|-------------------------------|
| 225  | 共享类型               |     | 0x00E1        | 读/写 | x1  | 0 不共享<br>1 共享                 |
| 226  | 上位机监控地址            |     | 0x00E2        | 读/写 | x1  | 1~254                         |
| 227  | 重启延时               | s   | 0x00E3        | 读/写 | x1  | 10~250s                       |
| 228  | 喷雾模块参数-开始温度设<br>定点 | ℃   | 0x00E4        | 读/写 | x10 | 0~50℃                         |
| 229  | 喷雾模块参数-停止温度设<br>定点 | ℃   | 0x00E5        | 读/写 | x10 | 0~50℃                         |
| 230  | 回风控制温度             | ℃   | 0x00E6        | 只读  | x10 |                               |
| 231  | 平均回风湿度             | ℃   | 0x00E7        | 只读  | x10 |                               |
| 232  | 出风控制温度             | ℃   | 0x00E8        | 只读  | x10 |                               |
| 233  | 平均出风湿度             | ℃   | 0x00E9        | 只读  | x10 |                               |
| 234  | 快速起机               |     | 0x00EA        | 读/写 | x1  | 0 关闭<br>1 开启                  |
| 235  | 1#IFoto 泵进出口压差     | kPa | 0x00EB        | 只读  | x1  |                               |
| 236  | 2#IFoto 泵进出口压差     | kPa | 0x00EC        | 只读  | x1  |                               |
| 运行状态 |                    |     |               |     |     |                               |
| 1    | 系统开关机状态            |     | 0x0214        | 只读  | x1  | 0 关闭<br>1 开启                  |
| 2    | 保留                 |     | 0x0215~0x0217 |     |     |                               |
| 3    | 风机转速               | %   | 0x0218        | 只读  | x10 |                               |
| 4    | 制冷                 |     | 0x0219        | 只读  | x1  | 0 关闭<br>1 开启                  |
| 5    | 加热                 |     | 0x021A        | 只读  | x1  | 0 关闭<br>1 开启<br>不配显示<br>32767 |
| 6    | 除湿                 |     | 0x021B        | 只读  | x1  | 0 关闭<br>1 开启                  |
| 7    | 保留                 |     | 0x021C~0x021D |     |     |                               |
| 8    | 1#外风机转速            | %   | 0x021E        | 只读  | x10 |                               |
| 9    | 2#外风机转速            | %   | 0x021F        | 只读  | x10 |                               |
| 10   | 1#变频器运行频率          | Hz  | 0x0220        | 只读  | x1  |                               |
| 11   | 2#变频器运行频率          | Hz  | 0x0221        | 只读  | x1  |                               |
| 12   | 1#变频器运行转速          | %   | 0x0222        | 只读  | x1  |                               |
| 13   | 2#变频器运行转速          | %   | 0x0223        | 只读  | x1  |                               |
| 14   | 送风风阀               |     | 0x0224        | 只读  | x1  | 0 关闭<br>1 开启                  |

|                        |           |  |        |     |    |                    |
|------------------------|-----------|--|--------|-----|----|--------------------|
| 15                     | 回风风阀      |  | 0x0225 | 只读  | x1 | 0 关闭<br>1 开启       |
| 16                     | 1#室外排水阀状态 |  | 0x0890 | 读   | x1 | 0 关闭<br>1 开启       |
| 17                     | 2#室外排水阀状态 |  | 0x0891 | 读   | x1 | 0 关闭<br>1 开启       |
| 遥控参数                   |           |  |        |     |    |                    |
| 1                      | 监控开关机     |  | 0x0400 | 读/写 | x1 | 0x15 开机<br>0x17 关机 |
| 告警状态（0x00 无告警 0x01 告警） |           |  |        |     |    |                    |
| 1                      | 回风高温告警    |  | 0x0500 | 只读  | x1 |                    |
| 2                      | 回风低温告警    |  | 0x0501 | 只读  | x1 |                    |
| 3                      | 回风高湿告警    |  | 0x0502 | 只读  | x1 |                    |
| 4                      | 回风低湿告警    |  | 0x0503 | 只读  | x1 |                    |
| 5                      | 1#回风温感故障  |  | 0x0504 | 只读  | x1 |                    |
| 6                      | 2#回风温感故障  |  | 0x0505 | 只读  | x1 |                    |
| 7                      | 3#回风温感故障  |  | 0x0506 | 只读  | x1 |                    |
| 8                      | 1#出风温感故障  |  | 0x0507 | 只读  | x1 |                    |
| 9                      | 2#出风温感故障  |  | 0x0508 | 只读  | x1 |                    |
| 10                     | 3#出风温感故障  |  | 0x0509 | 只读  | x1 |                    |
| 11                     | 回风湿感故障    |  | 0x050A | 只读  | x1 |                    |
| 12                     | 滤网压差传感器故障 |  | 0x050B | 只读  | x1 |                    |
| 13                     | 1#内风机故障   |  | 0x050C | 只读  | x1 |                    |
| 14                     | 2#内风机故障   |  | 0x050D | 只读  | x1 |                    |
| 15                     | 3#内风机故障   |  | 0x050E | 只读  | x1 |                    |
| 16                     | 4#内风机故障   |  | 0x050F | 只读  | x1 |                    |
| 17                     | 5#内风机故障   |  | 0x0510 | 只读  | x1 |                    |
| 18                     | 6#内风机故障   |  | 0x0511 | 只读  | x1 |                    |
| 19                     | 1#电源故障    |  | 0x0512 | 只读  | x1 |                    |
| 20                     | 2#电源故障    |  | 0x0513 | 只读  | x1 |                    |
| 21                     | 1#冷凝水阀故障  |  | 0x0514 | 只读  | x1 |                    |
| 22                     | 2#冷凝水阀故障  |  | 0x0515 | 只读  | x1 |                    |
| 23                     | 滤网堵塞告警    |  | 0x0517 | 只读  | x1 |                    |
| 24                     | 群控掉线告警    |  | 0x0519 | 只读  | x1 |                    |

|    |            |  |        |    |    |  |
|----|------------|--|--------|----|----|--|
| 25 | 电极加湿电流过小   |  | 0x051A | 只读 | x1 |  |
| 26 | 电极加湿电流过大   |  | 0x051B | 只读 | x1 |  |
| 27 | 电极加湿水位过高   |  | 0x051C | 只读 | x1 |  |
| 28 | 地板溢水       |  | 0x051D | 只读 | x1 |  |
| 29 | 内机电源电压过高   |  | 0x051E | 只读 | x1 |  |
| 30 | 内机电源电压过低   |  | 0x051F | 只读 | x1 |  |
| 31 | 内机电源缺相告警   |  | 0x0520 | 只读 | x1 |  |
| 32 | 内机电源逆相告警   |  | 0x0521 | 只读 | X1 |  |
| 33 | 电网频率异常     |  | 0x0522 | 只读 | X1 |  |
| 34 | 冷凝水位过高     |  | 0x0523 | 只读 | x1 |  |
| 35 | 加湿桶维护时间到   |  | 0x0524 | 只读 | x1 |  |
| 36 | 1#系统高压     |  | 0x0529 | 只读 | x1 |  |
| 37 | 1#系统低压     |  | 0x052A | 只读 | x1 |  |
| 38 | 2#系统高压     |  | 0x052B | 只读 | x1 |  |
| 39 | 2#系统低压     |  | 0x052C | 只读 | x1 |  |
| 40 | 1#系统高压锁定   |  | 0x052D | 只读 | x1 |  |
| 41 | 2#系统高压锁定   |  | 0x052E | 只读 | x1 |  |
| 42 | 1#系统低压锁定   |  | 0x052F | 只读 | x1 |  |
| 43 | 2#系统低压锁定   |  | 0x0530 | 只读 | x1 |  |
| 44 | 1#系统排气温度保护 |  | 0x0531 | 只读 | x1 |  |
| 45 | 2#系统排气温度保护 |  | 0x0532 | 只读 | x1 |  |
| 46 | 1#系统排气温度锁定 |  | 0x0533 | 只读 | x1 |  |
| 47 | 2#系统排气温度锁定 |  | 0x0534 | 只读 | x1 |  |
| 48 | 1#盘管防冻保护   |  | 0x0535 | 只读 | x1 |  |
| 49 | 2#盘管防冻保护   |  | 0x0536 | 只读 | x1 |  |
| 50 | 1#制冷系统异常   |  | 0x0537 | 只读 | x1 |  |
| 51 | 2#制冷系统异常   |  | 0x0538 | 只读 | x1 |  |
| 52 | 1#系统短周期报警  |  | 0x0539 | 只读 | x1 |  |
| 53 | 2#系统短周期报警  |  | 0x053A | 只读 | x1 |  |
| 54 | 红外加湿水盘过温保护 |  | 0x0541 | 只读 | x1 |  |
| 55 | 红外加湿高水位    |  | 0x0542 | 只读 | x1 |  |
| 56 | 红外加湿缺水     |  | 0x0543 | 只读 | x1 |  |

|    |                |  |               |    |    |  |
|----|----------------|--|---------------|----|----|--|
| 57 | 水泵高水位告警        |  | 0x0544        | 只读 | x1 |  |
| 58 | 水泵低水位告警        |  | 0x0545        | 只读 | x1 |  |
| 59 | 烟感告警           |  | 0x054A        | 只读 | x1 |  |
| 60 | 1#冷凝温感失效       |  | 0x054B        | 只读 | x1 |  |
| 61 | 2#冷凝温感失效       |  | 0x054C        | 只读 | x1 |  |
| 62 | 1#吸气温感失效       |  | 0x054D        | 只读 | x1 |  |
| 63 | 2#吸气温感失效       |  | 0x054E        | 只读 | x1 |  |
| 64 | 1#排气温感失效       |  | 0x054F        | 只读 | x1 |  |
| 65 | 2#排气温感失效       |  | 0x0550        | 只读 | x1 |  |
| 66 | 1#低压传感器失效      |  | 0x0551        | 只读 | x1 |  |
| 67 | 2#低压传感器失效      |  | 0x0552        | 只读 | x1 |  |
| 68 | 1#冷凝压力传感器失效    |  | 0x0553        | 只读 | x1 |  |
| 69 | 2#冷凝压力传感器失效    |  | 0x0554        | 只读 | x1 |  |
| 70 | 1#变频器通讯故障      |  | 0x0555        | 只读 | x1 |  |
| 71 | 2#变频器通讯故障      |  | 0x0556        | 只读 | x1 |  |
| 72 | 保留             |  | 0x0557~0x055F |    |    |  |
| 73 | 1#低过热度保护       |  | 0x0560        | 只读 | x1 |  |
| 74 | 2#低过热度保护       |  | 0x0561        | 只读 | x1 |  |
| 75 | 保留             |  | 0x0563        |    |    |  |
| 76 | 滤网压差故障         |  | 0x0565        | 只读 | x1 |  |
| 77 | 7#内风机故障        |  | 0x0567        | 只读 | x1 |  |
| 78 | 异常掉电           |  | 0x0568        | 只读 | x1 |  |
| 79 | 1#变频器过流        |  | 0x0569        | 只读 | x1 |  |
| 80 | 1#变频器过温        |  | 0x056A        | 只读 | x1 |  |
| 81 | 1#变频器过压        |  | 0x056B        | 只读 | x1 |  |
| 82 | 1#变频器欠压        |  | 0x056C        | 只读 | x1 |  |
| 83 | 1#变频器缺相        |  | 0x056D        | 只读 | x1 |  |
| 84 | 1#变频器故障        |  | 0x056E        | 只读 | x1 |  |
| 85 | 1#内外机通信故障(EVO) |  | 0x056F        | 只读 | x1 |  |
| 86 | 保留             |  | 0x0575~0x057D |    |    |  |
| 87 | 2#回风湿感故障       |  | 0x057E        | 只读 | x1 |  |
| 88 | 3#回风湿感故障       |  | 0x057F        | 只读 | x1 |  |

|     |                 |  |        |    |    |  |
|-----|-----------------|--|--------|----|----|--|
| 89  | 1#出风湿感故障        |  | 0x0580 | 只读 | x1 |  |
| 90  | 2#出风湿感故障        |  | 0x0581 | 只读 | x1 |  |
| 91  | 3#出风湿感故障        |  | 0x0582 | 只读 | x1 |  |
| 92  | 冷热通道低压告警        |  | 0x0583 | 只读 | x1 |  |
| 93  | 冷热通道高压告警        |  | 0x0584 | 只读 | x1 |  |
| 94  | 8#内风机故障         |  | 0x0588 | 只读 | x1 |  |
| 95  | 通道压差传感器故障       |  | 0x0589 | 只读 | x1 |  |
| 96  | 出风高温告警          |  | 0x058A | 只读 | x1 |  |
| 97  | 出风低温告警          |  | 0x058B | 只读 | x1 |  |
| 98  | 2#内外机通信故障 (EVO) |  | 0x0590 | 只读 | x1 |  |
| 99  | 保留              |  | 0x0591 |    |    |  |
| 100 | 1#外风机故障         |  | 0x0592 | 只读 | x1 |  |
| 101 | 2#外风机故障         |  | 0x0593 | 只读 | x1 |  |
| 102 | 3#外风机故障         |  | 0x0594 | 只读 | x1 |  |
| 103 | 4#外风机故障         |  | 0x0595 | 只读 | x1 |  |
| 104 | 5#外风机故障         |  | 0x0596 | 只读 | x1 |  |
| 105 | 6#外风机故障         |  | 0x0597 | 只读 | x1 |  |
| 106 | 7#外风机故障         |  | 0x0598 | 只读 | x1 |  |
| 107 | 8#外风机故障         |  | 0x0599 | 只读 | x1 |  |
| 108 | 1#外机电源过压        |  | 0x059A | 只读 | x1 |  |
| 109 | 1#外机电源欠压        |  | 0x059B | 只读 | x1 |  |
| 110 | 1#变频器过流锁定       |  | 0x059C | 只读 | x1 |  |
| 111 | 1#变频器过温锁定       |  | 0x059D | 只读 | x1 |  |
| 112 | 1#变频器过压锁定       |  | 0x059E | 只读 | x1 |  |
| 113 | 1#变频器欠压锁定       |  | 0x059F | 只读 | x1 |  |
| 114 | 1#变频器缺相锁定       |  | 0x05A0 | 只读 | x1 |  |
| 115 | 1#变频器其他锁定       |  | 0x05A1 | 只读 | x1 |  |
| 116 | 2#变频器过流         |  | 0x05A2 | 只读 | x1 |  |
| 117 | 2#变频器过温         |  | 0x05A3 | 只读 | x1 |  |
| 118 | 2#变频器过压         |  | 0x05A4 | 只读 | x1 |  |
| 119 | 2#变频器欠压         |  | 0x05A5 | 只读 | x1 |  |

|     |           |  |               |    |    |  |
|-----|-----------|--|---------------|----|----|--|
| 120 | 2#变频器缺相   |  | 0x05A6        | 只读 | x1 |  |
| 121 | 2#变频器故障   |  | 0x05A7        | 只读 | x1 |  |
| 122 | 2#变频器过流锁定 |  | 0x05A8        | 只读 | x1 |  |
| 123 | 2#变频器过温锁定 |  | 0x05A9        | 只读 | x1 |  |
| 124 | 2#变频器过压锁定 |  | 0x05AA        | 只读 | x1 |  |
| 125 | 2#变频器欠压锁定 |  | 0x05AB        | 只读 | x1 |  |
| 126 | 2#变频器缺相锁定 |  | 0x05AC        | 只读 | x1 |  |
| 127 | 2#变频器其他锁定 |  | 0x05AD        | 只读 | x1 |  |
| 128 | 1#外机电源缺相  |  | 0x05AE        | 只读 | x1 |  |
| 129 | 1#外机电源逆相  |  | 0x05AF        | 只读 | x1 |  |
| 130 | 2#外机电源过压  |  | 0x05B0        | 只读 | x1 |  |
| 131 | 2#外机电源欠压  |  | 0x05B1        | 只读 | x1 |  |
| 132 | 2#外机电源缺相  |  | 0x05B2        | 只读 | x1 |  |
| 133 | 2#外机电源逆相  |  | 0x05B3        | 只读 | x1 |  |
| 134 | 出风高湿告警    |  | 0x05B7        | 只读 | x1 |  |
| 135 | 出风低湿告警    |  | 0x05B8        | 只读 | x1 |  |
| 136 | 9#内风机故障   |  | 0x05BA        | 只读 | x1 |  |
| 137 | 10#内风机故障  |  | 0x05C2        | 只读 | x1 |  |
| 138 | 11#内风机故障  |  | 0x05C3        | 只读 | x1 |  |
| 139 | 12#内风机故障  |  | 0x05C4        | 只读 | x1 |  |
| 140 | 13#内风机故障  |  | 0x05C5        | 只读 | x1 |  |
| 141 | 14#内风机故障  |  | 0x05C6        | 只读 | x1 |  |
| 142 | 15#内风机故障  |  | 0x05C7        | 只读 | x1 |  |
| 143 | 16#内风机故障  |  | 0x05C8        | 只读 | x1 |  |
| 144 | 保留        |  | 0x05CA~0x05CE |    |    |  |
| 145 | 注水缓慢告警    |  | 0x05DB        | 只读 | x1 |  |
| 146 | 水位开关异常告警  |  | 0x05DC        | 只读 | x1 |  |
| 147 | 与上位机通信故障  |  | 0x05D6        | 只读 | x1 |  |
| 148 | 1#泵进口压力故障 |  | 0x05E4        | 只读 | x1 |  |
| 149 | 2#泵进口压力故障 |  | 0x05E5        | 只读 | x1 |  |
| 150 | 1#泵出口压力故障 |  | 0x05E6        | 只读 | x1 |  |

|     |                  |  |        |    |    |  |
|-----|------------------|--|--------|----|----|--|
| 151 | 2#泵出口压力故障        |  | 0x05E7 | 只读 | x1 |  |
| 152 | 1#泵出口温感故障        |  | 0x05E8 | 只读 | x1 |  |
| 153 | 2#泵出口温感故障        |  | 0x05E9 | 只读 | x1 |  |
| 154 | 1#泵柜室外温感故障       |  | 0x05EA | 只读 | x1 |  |
| 155 | 2#泵柜室外温感故障       |  | 0x05EB | 只读 | x1 |  |
| 156 | 1#泵流量丢失锁定告警      |  | 0x05EC | 只读 | x1 |  |
| 157 | 2#泵流量丢失锁定告警      |  | 0x05ED | 只读 | x1 |  |
| 158 | 1#泵变频器通信故障       |  | 0x05EE | 只读 | x1 |  |
| 159 | 2#泵变频器通信故障       |  | 0x05EF | 只读 | x1 |  |
| 160 | 1#泵变频器故障         |  | 0x05F0 | 只读 | x1 |  |
| 161 | 2#泵变频器故障         |  | 0x05F1 | 只读 | x1 |  |
| 162 | 电流过小告警           |  | 0x05F5 | 只读 | x1 |  |
| 163 | 电流过大告警           |  | 0x05F6 | 只读 | x1 |  |
| 164 | 电表通信故障告警         |  | 0x05F7 | 只读 | x1 |  |
| 165 | 排水缓慢告警           |  | 0x05F8 | 只读 | x1 |  |
| 166 | 1#系统外风机被盗窃告警     |  | 0x05F9 | 只读 | x1 |  |
| 167 | 2#系统外风机被盗窃告警     |  | 0x05FA | 只读 | x1 |  |
| 168 | 外风机堵转告警          |  | 0x05FB | 只读 | x1 |  |
| 169 | 外风机堵转锁定告警        |  | 0x05FC | 只读 | x1 |  |
| 170 | B 相电流过小告警        |  | 0x05FD | 只读 | x1 |  |
| 171 | B 相电流过大告警        |  | 0x05FE | 只读 | x1 |  |
| 172 | C 相电流过小告警        |  | 0x05FF | 只读 | x1 |  |
| 173 | C 相电流过大告警        |  | 0x0600 | 只读 | x1 |  |
| 174 | B 相电源电压过高        |  | 0x0601 | 只读 | x1 |  |
| 175 | B 相电源电压过低        |  | 0x0602 | 只读 | x1 |  |
| 176 | C 相电源电压过高        |  | 0x0603 | 只读 | x1 |  |
| 177 | C 相电源电压过低        |  | 0x0604 | 只读 | x1 |  |
| 178 | 1#冷凝器通信故障(AC 风机) |  | 0x0605 | 只读 | x1 |  |
| 179 | 2#冷凝器通信故障(AC 风机) |  | 0x0606 | 只读 | x1 |  |
| 180 | 1#告警输出           |  | 0x0607 | 只读 | x1 |  |
| 181 | 2#告警输出           |  | 0x0608 | 只读 | x1 |  |
| 182 | 1#风阀故障告警         |  | 0x0609 | 只读 | x1 |  |

|     |                  |  |        |    |    |  |
|-----|------------------|--|--------|----|----|--|
| 183 | 2#风阀故障告警         |  | 0x060A | 只读 | x1 |  |
| 184 | 1#EEV2M4022 通信故障 |  | 0x060B | 只读 | x1 |  |
| 185 | 2#EEV2M4022 通信故障 |  | 0x060C | 只读 | x1 |  |
| 186 | 3#EEV2M4022 通信故障 |  | 0x060D | 只读 | x1 |  |
| 187 | 4#EEV2M4022 通信故障 |  | 0x060E | 只读 | x1 |  |
| 188 | 1#内风机通信故障        |  | 0x060F | 只读 | x1 |  |
| 189 | 2#内风机通信故障        |  | 0x0610 | 只读 | x1 |  |
| 190 | 3#内风机通信故障        |  | 0x0611 | 只读 | x1 |  |
| 191 | 湿膜加湿缓慢蒸发         |  | 0x0612 | 只读 | x1 |  |
| 192 | 1#内风机变频器通信故障     |  | 0x0613 | 只读 | x1 |  |
| 193 | 1#内风机变频器故障       |  | 0x0614 | 只读 | x1 |  |
| 194 | 加湿异常告警           |  | 0x0615 | 只读 | x1 |  |
| 195 | 风机扩展板通信故障        |  | 0x0616 | 只读 | x1 |  |
| 196 | 1#低过热度保护锁定       |  | 0x061A | 只读 | x1 |  |
| 197 | 2#低过热度保护锁定       |  | 0x061B | 只读 | x1 |  |
| 198 | ATS 通信故障         |  | 0x061C | 只读 | x1 |  |
| 199 | ATS 故障           |  | 0x061D | 只读 | x1 |  |
| 200 | 喷雾模块通信故障         |  | 0x061E | 只读 | x1 |  |
| 201 | 喷雾模块故障           |  | 0x061F | 只读 | x1 |  |
| 202 | 1#压机运行异常         |  | 0x0620 | 只读 | x1 |  |
| 203 | 2#压机运行异常         |  | 0x0621 | 只读 | x1 |  |
| 204 | 1#储液器液位故障        |  | 0x0622 | 只读 | x1 |  |
| 205 | 2#储液器液位故障        |  | 0x0623 | 只读 | x1 |  |
| 206 | 1#储液器低液位故障       |  | 0x0624 | 只读 | x1 |  |
| 207 | 2#储液器低液位故障       |  | 0x0625 | 只读 | x1 |  |
| 208 | 1#电源模块故障         |  | 0x0626 | 只读 | x1 |  |
| 209 | 2#电源模块故障         |  | 0x0627 | 只读 | x1 |  |
| 210 | 电极加湿电源故障         |  | 0x0628 | 只读 | x1 |  |
| 211 | 风速压差传感器通信故障      |  | 0x0629 | 只读 | x1 |  |
| 212 | 风速压差传感器故障        |  | 0x062A | 只读 | x1 |  |
| 213 | 1#防雷器故障          |  | 0x062B | 只读 | x1 |  |

|        |             |  |        |    |    |           |
|--------|-------------|--|--------|----|----|-----------|
| 214    | 2#防雷器故障     |  | 0x062C | 只读 | x1 |           |
| 215    | 1#1 外风机通信故障 |  | 0x062D | 只读 | x1 |           |
| 216    | 1#2 外风机通信故障 |  | 0x062E | 只读 | x1 |           |
| 217    | 2#1 外风机通信故障 |  | 0x062F | 只读 | x1 |           |
| 218    | 2#2 外风机通信故障 |  | 0x0630 | 只读 | x1 |           |
| 219    | 1#泵变频器故障锁定  |  | 0x0631 | 只读 | x1 |           |
| 220    | 2#泵变频器故障锁定  |  | 0x0632 | 只读 | x1 |           |
| 221    | 电加热过温告警     |  | 0xB169 | 只读 | x1 |           |
| 222    | 气体丢失告警      |  | 0xB16A | 只读 | x1 |           |
| NTP 授时 |             |  |        |    |    |           |
| 1      | 年           |  | 0x0B00 | 只写 | x1 | 2024~2035 |
| 2      | 月           |  | 0x0B01 | 只写 | x1 | 1~12      |
| 3      | 日           |  | 0x0B02 | 只写 | x1 | 1~31      |
| 4      | 时           |  | 0x0B03 | 只写 | x1 | 0~23      |
| 5      | 分           |  | 0x0B04 | 只写 | x1 | 0~59      |
| 6      | 秒           |  | 0x0B05 | 只写 | x1 | 0~59      |

# Register List:

The protocol is normal modbus communication protocol:

- 1、Each register deposit two bytes.
- 2、Data transmission mode: high byte in the front, and the low byte.

| NO. | Item                 | Unit | Register Address | Attribute<br>(Read/Write) | Ratio | Remark |
|-----|----------------------|------|------------------|---------------------------|-------|--------|
| 1   | Software Version     |      | 0x0001           | Read Only                 | x1    |        |
| 2   | RtnTemp1             | ℃    | 0x0002           | Read Only                 | x10   |        |
| 3   | RtnTemp2             | ℃    | 0x0003           | Read Only                 | x10   |        |
| 4   | RtnTemp3             | ℃    | 0x0004           | Read Only                 | x10   |        |
| 5   | SupTemp1             | ℃    | 0x0005           | Read Only                 | x10   |        |
| 6   | SupTemp2             | ℃    | 0x0006           | Read Only                 | x10   |        |
| 7   | SupTemp3             | ℃    | 0x0007           | Read Only                 | x10   |        |
| 8   | RtnHum1              | %    | 0x0008           | Read Only                 | x10   |        |
| 9   | RtnHum2              | %    | 0x0009           | Read Only                 | x10   |        |
| 10  | RtnHum3              | %    | 0x000A           | Read Only                 | x10   |        |
| 11  | SupHum1              | %    | 0x000B           | Read Only                 | x10   |        |
| 12  | SupHum2              | %    | 0x000C           | Read Only                 | x10   |        |
| 13  | SupHum3              | %    | 0x000D           | Read Only                 | x10   |        |
| 14  | FiltDiffPres         | Pa   | 0x000E           | Read Only                 | x10   |        |
| 15  | Aisle DiffPres       | Pa   | 0x000F           | Read Only                 | x10   |        |
| 16  | Voltage              | V    | 0x0010           | Read Only                 | x1    |        |
| 17  | Hum Curr             | A    | 0x0011           | Read Only                 | x1000 |        |
| 18  | CoilInletTemp1       | ℃    | 0x0012           | Read Only                 | x10   |        |
| 19  | CoilInletTemp2       | ℃    | 0x0013           | Read Only                 | x10   |        |
| 20  | CoilOutletTemp1      | ℃    | 0x0014           | Read Only                 | x10   |        |
| 21  | CoilOutletTemp2      | ℃    | 0x0015           | Read Only                 | x10   |        |
| 22  | 1#ReserLevHeight     | mm   | 0x0016           | Read Only                 | x1    |        |
| 23  | 2#ReserLevHeight     | mm   | 0x0017           | Read Only                 | x1    |        |
| 24  | SprayModule OutTemp  | ℃    | 0x0018           | Read Only                 | x10   |        |
| 25  | SprayModule PumpOutP | kPa  | 0x0019           | Read Only                 | x1    |        |
| 26  | AmbTempIF1           | ℃    | 0x001A           | Read Only                 | x10   |        |
| 27  | AmbTempIF2           | ℃    | 0x001B           | Read Only                 | x10   |        |
| 28  | PumpOutletT1         | ℃    | 0x001C           | Read Only                 | x10   |        |
| 29  | PumpOutletT2         | ℃    | 0x001D           | Read Only                 | x10   |        |
| 30  | IF Pump Head1        | Bar  | 0x001E           | Read Only                 | x100  |        |
| 31  | IF Pump Head2        | Bar  | 0x001F           | Read Only                 | x100  |        |
| 32  | External Temp 1      | ℃    | 0x0020           | Read Only                 | x10   |        |

|    |                  |    |        |           |     |                          |
|----|------------------|----|--------|-----------|-----|--------------------------|
| 33 | External Hum 1   | %  | 0x0021 | Read Only | x10 |                          |
| 34 | External Type 1  |    | 0x0022 | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 35 | External Temp 2  | °C | 0x0023 | Read Only | x10 |                          |
| 36 | External Hum 2   | %  | 0x0024 | Read Only | x10 |                          |
| 37 | External Type 2  |    | 0x0025 | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 38 | External Temp 3  | °C | 0x0026 | Read Only | x10 |                          |
| 39 | External Hum 3   | %  | 0x0027 | Read Only | x10 |                          |
| 40 | External Type 3  |    | 0x0028 | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 41 | External Temp 4  | °C | 0x0029 | Read Only | x10 |                          |
| 42 | External Hum 4   | %  | 0x002A | Read Only | x10 |                          |
| 43 | External Type 4  |    | 0x002B | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 44 | External Temp 5  | °C | 0x002C | Read Only | x10 |                          |
| 45 | External Hum 5   | %  | 0x002D | Read Only | x10 |                          |
| 46 | External Type 5  |    | 0x002E | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 47 | External Temp 6  | °C | 0x002F | Read Only | x10 |                          |
| 48 | External Hum 6   | %  | 0x0030 | Read Only | x10 |                          |
| 49 | External Type 6  |    | 0x0031 | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 50 | External Temp 7  | °C | 0x0032 | Read Only | x10 |                          |
| 51 | External Hum 7   | %  | 0x0033 | Read Only | x10 |                          |
| 52 | External Type 7  |    | 0x0034 | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 53 | External Temp 8  | °C | 0x0035 | Read Only | x10 |                          |
| 54 | External Hum 8   | %  | 0x0036 | Read Only | x10 |                          |
| 55 | External Type 8  |    | 0x0037 | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 56 | External Temp 9  | °C | 0x0038 | Read Only | x10 |                          |
| 57 | External Hum 9   | %  | 0x0039 | Read Only | x10 |                          |
| 58 | External Type 9  |    | 0x003A | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 59 | External Temp 10 | °C | 0x003B | Read Only | x10 |                          |
| 60 | External Hum 10  | %  | 0x003C | Read Only | x10 |                          |
| 61 | External Type 10 |    | 0x003D | Read Only | x1  | 0 (Supply)<br>1 (Return) |
| 62 | External Temp 11 | °C | 0x003E | Read Only | x10 |                          |
| 63 | External Hum 11  | %  | 0x003F | Read Only | x10 |                          |
| 64 | External Type 11 |    | 0x0040 | Read Only | x1  | 0 (Supply)<br>1 (Return) |

|    |                  |   |        |           |     |                                                                                        |
|----|------------------|---|--------|-----------|-----|----------------------------------------------------------------------------------------|
| 65 | External Temp 12 | ℃ | 0x0041 | Read Only | x10 |                                                                                        |
| 66 | External Hum 12  | % | 0x0042 | Read Only | x10 |                                                                                        |
| 67 | External Type 12 |   | 0x0043 | Read Only | x1  | 0 (Supply)<br>1 (Return)                                                               |
| 68 | External Temp 13 | ℃ | 0x0044 | Read Only | x10 |                                                                                        |
| 69 | External Hum 13  | % | 0x0045 | Read Only | x10 |                                                                                        |
| 70 | External Type 13 |   | 0x0046 | Read Only | x1  | 0 (Supply)<br>1 (Return)                                                               |
| 71 | External Temp 14 | ℃ | 0x0047 | Read Only | x10 |                                                                                        |
| 72 | External Hum 14  | % | 0x0048 | Read Only | x10 |                                                                                        |
| 73 | External Type 14 |   | 0x0049 | Read Only | x1  | 0 (Supply)<br>1 (Return)                                                               |
| 74 | External Temp 15 | ℃ | 0x004A | Read Only | x10 |                                                                                        |
| 75 | External Hum 15  | % | 0x004B | Read Only | x10 |                                                                                        |
| 76 | External Type 15 |   | 0x004C | Read Only | x1  | 0 (Supply)<br>1 (Return)                                                               |
| 77 | External Temp 16 | ℃ | 0x004D | Read Only | x10 |                                                                                        |
| 78 | External Hum 16  | % | 0x004E | Read Only | x10 |                                                                                        |
| 79 | External Type 16 |   | 0x004F | Read Only | x1  | 0 (Supply)<br>1 (Return)                                                               |
| 80 | External Temp 17 | ℃ | 0x0050 | Read Only | x10 |                                                                                        |
| 81 | External Hum 17  | % | 0x0051 | Read Only | x10 |                                                                                        |
| 82 | External Type 17 |   | 0x0052 | Read Only | x1  | 0 (Supply)<br>1 (Return)                                                               |
| 83 | External Temp 18 | ℃ | 0x0053 | Read Only | x10 |                                                                                        |
| 84 | External Hum 18  | % | 0x0054 | Read Only | x10 |                                                                                        |
| 85 | External Type 18 |   | 0x0055 | Read Only | x1  | 0 (Supply)<br>1 (Return)                                                               |
| 86 | InFan1           | % | 0x0056 | Read Only | x10 | The unit of internal fan speed can be displayed as rpm, in which case the factor is 1. |
| 87 | InFan2           | % | 0x0057 | Read Only | x10 |                                                                                        |
| 88 | InFan3           | % | 0x0058 | Read Only | x10 |                                                                                        |
| 89 | InFan4           | % | 0x0059 | Read Only | x10 |                                                                                        |
| 90 | InFan5           | % | 0x005A | Read Only | x10 |                                                                                        |
| 91 | InFan6           | % | 0x005B | Read Only | x10 |                                                                                        |
| 92 | InFan7           | % | 0x005C | Read Only | x10 |                                                                                        |
| 93 | InFan8           | % | 0x005D | Read Only | x10 |                                                                                        |
| 94 | InFan9           | % | 0x005E | Read Only | x10 |                                                                                        |

|     |                           |                   |        |           |       |                                         |
|-----|---------------------------|-------------------|--------|-----------|-------|-----------------------------------------|
| 95  | InFan10                   | %                 | 0x005F | Read Only | x10   |                                         |
| 96  | InFan11                   | %                 | 0x0060 | Read Only | x10   |                                         |
| 97  | InFan12                   | %                 | 0x0061 | Read Only | x10   |                                         |
| 98  | InFan13                   | %                 | 0x0062 | Read Only | x10   |                                         |
| 99  | InFan14                   | %                 | 0x0063 | Read Only | x10   |                                         |
| 100 | InFan15                   | %                 | 0x0064 | Read Only | x10   |                                         |
| 101 | InFan16                   | %                 | 0x0065 | Read Only | x10   |                                         |
| 102 | 1#Valve/OutFan1           | %                 | 0x0066 | Read Only | x10   |                                         |
| 103 | 2#Valve/OutFan2           | %                 | 0x0067 | Read Only | x10   |                                         |
| 104 | Compressor1               |                   | 0x0068 | Read Only | x1    | 0 OFF<br>1 ON                           |
| 105 | Compressor2               |                   | 0x0069 | Read Only | x1    | 0 OFF<br>1 ON                           |
| 106 | CompF1                    | Hz                | 0x006A | Read Only | x1    |                                         |
| 107 | CompF2                    | Hz                | 0x006B | Read Only | x1    |                                         |
| 108 | Heater                    |                   | 0x006C | Read Only | x1    | 0 OFF<br>1 ON                           |
| 109 | Hum                       |                   | 0x006D | Read Only | x1    | 0 OFF<br>1 ON                           |
| 110 | DeHum                     |                   | 0x006E | Read Only | x1    | 0 OFF<br>1 ON                           |
| 111 | InFan Spd                 | %                 | 0x006F | Read Only | x10   |                                         |
| 112 | Power                     | kW                | 0x0070 | Read Only | x1000 |                                         |
| 113 | Consumption-Low Word      | kWh               | 0x0071 | Read Only | x1000 |                                         |
| 114 | Consumption-High Word     | kWh               | 0x0072 | Read Only | x1000 |                                         |
| 115 | CoolingCapacity           | kW                | 0x0073 | Read Only | x10   |                                         |
| 116 | EER                       |                   | 0x0074 | Read Only | x10   |                                         |
| 117 | AirFlow(Low-level words)  | m <sup>3</sup> /h | 0x0075 | Read Only | x1    |                                         |
| 118 | AirFlow(High-level words) | m <sup>3</sup> /h | 0x0076 | Read Only | x1    |                                         |
| 119 | VFD Current1              | A                 | 0x0077 | Read Only | x10   |                                         |
| 120 | VFD Current2              | A                 | 0x0078 | Read Only | x10   |                                         |
| 121 | S1SwitchStatus            |                   | 0x0079 | Read Only | x1    | 0 Open<br>1 Close<br>2 Trip             |
| 122 | S2SwitchStatus            |                   | 0x007A | Read Only | x1    | 0 Open<br>1 Close<br>2 Trip             |
| 123 | MainPowerSel              |                   | 0x007B | Read Only | x1    | 0 S1<br>1 S2                            |
| 124 | WorkMode                  |                   | 0x007C | Read Only | x1    | 0 AutoS&R<br>1 AutoS&NoR<br>2 MutualSby |
| 125 | SprayModule Pump          |                   | 0x007D | Read Only | x1    | 0 OFF                                   |

|     |                          |  |        |           |    |                                           |
|-----|--------------------------|--|--------|-----------|----|-------------------------------------------|
|     |                          |  |        |           |    | 1 ON                                      |
| 126 | SprayModule Valve1Manual |  | 0x007E | Read Only | x1 | 0 OFF<br>1 ON                             |
| 127 | SprayModule Valve2Manual |  | 0x007F | Read Only | x1 | 0 OFF<br>1 ON                             |
| 128 | SprayModule BypassValve  |  | 0x0080 | Read Only | x1 | 0 OFF<br>1 ON                             |
| 129 | SprayModule DrainValve   |  | 0x0081 | Read Only | x1 | 0 OFF<br>1 ON                             |
| 130 | IF Pump1                 |  | 0x0082 | Read Only | x1 | 0 OFF<br>1 ON                             |
| 131 | IF Pump2                 |  | 0x0083 | Read Only | x1 | 0 OFF<br>1 ON                             |
| 132 | Cool Status1             |  | 0x0084 | Read Only | x1 | 0 NONE<br>1 IF-ON<br>2 DX-ON<br>3 IF+DX   |
| 133 | Cool Status2             |  | 0x0085 | Read Only | x1 | 0 NONE<br>1 IF-ON<br>2 DX-ON<br>3 IF+DX   |
| 134 | Hum Filling Valve        |  | 0x0086 | Read Only | x1 | 0 OFF<br>1 ON                             |
| 135 | Hum Drain Valve          |  | 0x0087 | Read Only | x1 | 0 OFF<br>1 ON                             |
| 136 | Unit 1                   |  | 0x0088 | Read Only | x1 | 0 Offline<br>1 Run<br>2 Standby<br>3 None |
| 137 | Unit 2                   |  | 0x0089 | Read Only | x1 |                                           |
| 138 | Unit 3                   |  | 0x008A | Read Only | x1 |                                           |
| 139 | Unit 4                   |  | 0x008B | Read Only | x1 |                                           |
| 140 | Unit 5                   |  | 0x008C | Read Only | x1 |                                           |
| 141 | Unit 6                   |  | 0x008D | Read Only | x1 |                                           |
| 142 | Unit 7                   |  | 0x008E | Read Only | x1 |                                           |
| 143 | Unit 8                   |  | 0x008F | Read Only | x1 |                                           |
| 144 | Unit 9                   |  | 0x0090 | Read Only | x1 |                                           |
| 145 | Unit 10                  |  | 0x0091 | Read Only | x1 |                                           |
| 146 | Unit 11                  |  | 0x0092 | Read Only | x1 |                                           |
| 147 | Unit 12                  |  | 0x0093 | Read Only | x1 |                                           |
| 148 | Unit 13                  |  | 0x0094 | Read Only | x1 |                                           |
| 149 | Unit 14                  |  | 0x0095 | Read Only | x1 |                                           |
| 150 | Unit 15                  |  | 0x0096 | Read Only | x1 |                                           |

|     |                      |       |        |           |      |  |
|-----|----------------------|-------|--------|-----------|------|--|
| 151 | Unit 16              |       | 0x0097 | Read Only | x1   |  |
| 152 | Unit 17              |       | 0x0098 | Read Only | x1   |  |
| 153 | Unit 18              |       | 0x0099 | Read Only | x1   |  |
| 154 | Unit 19              |       | 0x009A | Read Only | x1   |  |
| 155 | Unit 20              |       | 0x009B | Read Only | x1   |  |
| 156 | Unit 21              |       | 0x009C | Read Only | x1   |  |
| 157 | Suction T1           | °C    | 0x009D | Read Only | x10  |  |
| 158 | Suction T2           | °C    | 0x009E | Read Only | x10  |  |
| 159 | Discharge T1         | °C    | 0x009F | Read Only | x10  |  |
| 160 | Discharge T21        | °C    | 0x00A0 | Read Only | x10  |  |
| 161 | Evap Pres1           | bar   | 0x00A1 | Read Only | x100 |  |
| 162 | Evap Pres2           | bar   | 0x00A2 | Read Only | x100 |  |
| 163 | Cond Press1          | bar   | 0x00A3 | Read Only | x100 |  |
| 164 | Cond Press2          | bar   | 0x00A4 | Read Only | x100 |  |
| 165 | 1#DX/IF-EEV1         | St    | 0x00A5 | Read Only | x1   |  |
| 166 | 1#DX/IF-EEV2         | St    | 0x00A6 | Read Only | x1   |  |
| 167 | 2#DX/IF-EEV1         | St    | 0x00A7 | Read Only | x1   |  |
| 168 | 2#DX/IF-EEV2         | St    | 0x00A8 | Read Only | x1   |  |
| 169 | Pump In P1           | bar   | 0x00A9 | Read Only | x100 |  |
| 170 | Pump In P2           | bar   | 0x00AA | Read Only | x100 |  |
| 171 | Pump Out P1          | bar   | 0x00AB | Read Only | x100 |  |
| 172 | Pump Out P2          | bar   | 0x00AC | Read Only | x100 |  |
| 173 | Pump Out T1          | °C    | 0x00AD | Read Only | x10  |  |
| 174 | Pump Out T2          | °C    | 0x00AE | Read Only | x10  |  |
| 175 | In LiqPipe T1        | °C    | 0x00AF | Read Only | x10  |  |
| 176 | In LiqPipe T2        | °C    | 0x00B0 | Read Only | x10  |  |
| 177 | Out T1               | °C    | 0x00B1 | Read Only | x10  |  |
| 178 | Out T2               | °C    | 0x00B2 | Read Only | x10  |  |
| 179 | IF Frequency1        | Hz    | 0x00B3 | Read Only | x1   |  |
| 180 | IF Frequency2        | Hz    | 0x00B4 | Read Only | x1   |  |
| 181 | 1#Supply-EEV1        | St    | 0x00B5 | Read Only | x1   |  |
| 182 | 1#Supply-EEV2        | St    | 0x00B6 | Read Only | x1   |  |
| 183 | 2#Supply-EEV1        | St    | 0x00B7 | Read Only | x1   |  |
| 184 | 2#Supply-EEV2        | St    | 0x00B8 | Read Only | x1   |  |
| 185 | Cool Run Time        | h     | 0x00B9 | Read Only | x1   |  |
| 186 | Heat Run Time        | h     | 0x00BA | Read Only | x1   |  |
| 187 | Dehum Run Time       | h     | 0x00BB | Read Only | x1   |  |
| 188 | Hum Run Time         | h     | 0x00BC | Read Only | x1   |  |
| 189 | Fan Run Time         | h     | 0x00BD | Read Only | x1   |  |
| 190 | EnergySavIF Run Time | h     | 0x00BE | Read Only | x1   |  |
| 191 | Cool Action Times    | Times | 0x00BF | Read Only | x1   |  |
| 192 | Heat Action Times    | Times | 0x00C0 | Read Only | x1   |  |
| 193 | Dehum Action Times   | Times | 0x00C1 | Read Only | x1   |  |

|     |                          |       |        |            |     |                                                                                       |
|-----|--------------------------|-------|--------|------------|-----|---------------------------------------------------------------------------------------|
| 194 | Hum Action Times         | Times | 0x00C2 | Read Only  | x1  |                                                                                       |
| 195 | Fan Action Times         | Times | 0x00C3 | Read Only  | x1  |                                                                                       |
| 196 | EnergySavIF Action Times | Times | 0x00C4 | Read Only  | x1  |                                                                                       |
| 197 | Cool Ctrl Mode           |       | 0x00C5 | Read/Write | x1  | 0 Rtn Avg<br>1 Sup Avg<br>2 Rtn Hot<br>3 Sup Hot                                      |
| 198 | Cool SP                  | ℃     | 0x00C6 | Read/Write | x10 | 7~45℃                                                                                 |
| 199 | CoolSensitivity          | ℃     | 0x00C7 | Read/Write | x10 | 1~10℃                                                                                 |
| 200 | Heat SP                  | ℃     | 0x00C8 | Read/Write | x10 | -40~45℃                                                                               |
| 201 | HeatSensitivity          | ℃     | 0x00C9 | Read/Write | x10 | 1~10℃                                                                                 |
| 202 | Hum Ctrl Mode            |       | 0x00CA | Read/Write | x1  | 0 Rtn Hum<br>1 Sup Hum                                                                |
| 203 | Dehum SP                 | %     | 0x00CB | Read/Write | x10 | 10~90%                                                                                |
| 204 | Dehum Sens               | %     | 0x00CC | Read/Write | x10 | 3~20%                                                                                 |
| 205 | Humidity SP              | %     | 0x00CD | Read/Write | x10 | 10~90%                                                                                |
| 206 | Hum SP                   | %     | 0x00CE | Read/Write | x10 | 3~20%                                                                                 |
| 207 | Fan Ctrl Mode            |       | 0x00CF | Read/Write | x1  | 0 Rtn Avg<br>1 Sup Avg<br>2 Rtn Hot<br>3 Sup Hot<br>4 DT Avg<br>5 DT Hot<br>6 DP Ctrl |
| 208 | Fan SP                   | ℃     | 0x00D0 | Read/Write | x10 | 7~45℃                                                                                 |
| 209 | DP SP                    | Pa    | 0x00D1 | Read/Write | x10 | 1~99.9Pa                                                                              |
| 210 | FanDT Sens               | ℃     | 0x00D2 | Read/Write | x10 | 0~10℃                                                                                 |
| 211 | Rtn Air H Temp SP        | ℃     | 0x00D3 | Read/Write | x10 | 20~70℃                                                                                |
| 212 | Rtn Air L Temp SP        | ℃     | 0x00D4 | Read/Write | x10 | -20~20℃                                                                               |
| 213 | Rtn Air H Hum SP         | %     | 0x00D5 | Read/Write | x10 | 50~95%                                                                                |
| 214 | Rtn Air L Hum SP         | %     | 0x00D6 | Read/Write | x10 | 1~50%                                                                                 |
| 215 | Sup Air H Temp SP        | ℃     | 0x00D7 | Read/Write | x10 | 18~45℃                                                                                |
| 216 | Sup Air L Temp SP        | ℃     | 0x00D8 | Read/Write | x10 | -20~18℃                                                                               |
| 217 | Sup Air H Hum SP         | %     | 0x00D9 | Read/Write | x10 | 60~90%                                                                                |
| 218 | Sup Air L Hum SP         | %     | 0x00DA | Read/Write | x10 | 1~60%                                                                                 |
| 219 | TW Mode                  |       | 0x00DB | Read/Write | x1  | 0 Single<br>1 Team                                                                    |
| 220 | Local Addr               |       | 0x00DC | Read/Write | x1  | 1~21                                                                                  |
| 221 | H&S Mode                 |       | 0x00DD | Read/Write | x1  | 0 Auto<br>1 Host<br>2 Standby                                                         |
| 222 | MemberQty                |       | 0x00DE | Read/Write | x1  | 1~21                                                                                  |
| 223 | StandbyQty               |       | 0x00DF | Read/Write | x1  | 0~21                                                                                  |

|                   |                                    |     |               |            |     |                                             |
|-------------------|------------------------------------|-----|---------------|------------|-----|---------------------------------------------|
| 224               | Cycling Time                       | h   | 0x00E0        | Read/Write | x1  | 1~120h                                      |
| 225               | ShareType                          |     | 0x00E1        | Read/Write | x1  | 0 UnShare<br>1 Share                        |
| 226               | Monitor Addr                       |     | 0x00E2        | Read/Write | x1  | 1~254                                       |
| 227               | Restart Delay                      | s   | 0x00E3        | Read/Write | x1  | 10~250s                                     |
| 228               | SprayModule StartTempSP            | ℃   | 0x00E4        | Read/Write | x10 | 0~50℃                                       |
| 229               | SprayModule StopTempSP             | ℃   | 0x00E5        | Read/Write | x10 | 0~50℃                                       |
| 230               | Rtn Ctrl Temp                      | ℃   | 0x00E6        | Read Only  | x10 |                                             |
| 231               | Rtn Avg Hum                        | ℃   | 0x00E7        | Read Only  | x10 |                                             |
| 232               | Sup Ctrl Temp                      | ℃   | 0x00E8        | Read Only  | x10 |                                             |
| 233               | Sup Avg Hum                        | ℃   | 0x00E9        | Read Only  | x10 |                                             |
| 234               | QuickStart                         |     | 0x00EA        | Read/Write | x1  | 0 Close<br>1 Open                           |
| 235               | 1#IFoto Pump differential pressure | kPa | 0x00EB        | Read Only  | x10 |                                             |
| 236               | 2#IFoto Pump differential pressure | kPa | 0x00EC        | Read Only  | x10 |                                             |
| Operational State |                                    |     |               |            |     |                                             |
| 1                 | System on/off status               |     | 0x0214        | Read Only  | x1  | 0 OFF<br>1 ON                               |
| 2                 | Reserve                            |     | 0x0215~0x0217 |            |     |                                             |
| 3                 | Fan speed                          | %   | 0x0218        | Read Only  | x10 |                                             |
| 4                 | Refrigeration                      |     | 0x0219        | Read Only  | x1  | 0 OFF<br>1 ON                               |
| 5                 | Heating                            |     | 0x021A        | Read Only  | x1  | 0 OFF<br>1 ON<br>Not suitable display 32767 |
| 6                 | Dehumidification                   |     | 0x021B        | Read Only  | x1  | 0 OFF<br>1 ON                               |
| 7                 | Reserve                            |     | 0x021C~0x021D |            |     |                                             |
| 8                 | 1#Outdoor fan speed                | %   | 0x021E        | Read Only  | x10 |                                             |
| 9                 | 2#Outdoor fan speed                | %   | 0x021F        | Read Only  | x10 |                                             |
| 10                | 1#Inverter operating frequency     | Hz  | 0x0220        | Read Only  | x1  |                                             |
| 11                | 2#Inverter operating frequency     | Hz  | 0x0221        | Read Only  | x1  |                                             |
| 12                | 1#Inverter operating speed         | %   | 0x0222        | Read Only  | x1  |                                             |
| 13                | 2#Inverter operating speed         | %   | 0x0223        | Read Only  | x1  |                                             |
| 14                | Supply air valve                   |     | 0x0224        | Read Only  | x1  | 0 OFF                                       |

|                                        |                                           |  |        |            |    |                     |
|----------------------------------------|-------------------------------------------|--|--------|------------|----|---------------------|
|                                        |                                           |  |        |            |    | 1 ON                |
| 15                                     | Return air valve                          |  | 0x0225 | Read Only  | x1 | 0 OFF<br>1 ON       |
| 16                                     | OutdoorDrainValve1                        |  | 0x0890 | Read Only  | x1 | 0 OFF<br>1 ON       |
| 17                                     | OutdoorDrainValve2                        |  | 0x0891 | Read Only  | x1 | 0 OFF<br>1 ON       |
| Remote Control Parameter               |                                           |  |        |            |    |                     |
| 1                                      | Monitoring switch on/off                  |  | 0x0400 | Read/Write | x1 | 0x15 ON<br>0x17 OFF |
| Alarm Status (0x00 Normal, 0x01 Alarm) |                                           |  |        |            |    |                     |
| 1                                      | Return air high temperature alarm         |  | 0x0500 | Read Only  | x1 |                     |
| 2                                      | Return air low temperature alarm          |  | 0x0501 | Read Only  | x1 |                     |
| 3                                      | Return air high humidity alarm            |  | 0x0502 | Read Only  | x1 |                     |
| 4                                      | Return air low humidity alarm             |  | 0x0503 | Read Only  | x1 |                     |
| 5                                      | 1#Return air temperature sensing fault    |  | 0x0504 | Read Only  | x1 |                     |
| 6                                      | 2#Return air temperature sensing fault    |  | 0x0505 | Read Only  | x1 |                     |
| 7                                      | 3#Return air temperature sensing fault    |  | 0x0506 | Read Only  | x1 |                     |
| 8                                      | 1#Supply air temperature sensing fault    |  | 0x0507 | Read Only  | x1 |                     |
| 9                                      | 2#Supply air temperature sensing fault    |  | 0x0508 | Read Only  | x1 |                     |
| 10                                     | 3#Supply air temperature sensing fault    |  | 0x0509 | Read Only  | x1 |                     |
| 11                                     | Return air humidity sensing fault         |  | 0x050A | Read Only  | x1 |                     |
| 12                                     | Filter differential pressure sensor fault |  | 0x050B | Read Only  | x1 |                     |
| 13                                     | 1#Internal fan failure                    |  | 0x050C | Read Only  | x1 |                     |
| 14                                     | 2#Internal fan failure                    |  | 0x050D | Read Only  | x1 |                     |
| 15                                     | 3#Internal fan failure                    |  | 0x050E | Read Only  | x1 |                     |
| 16                                     | 4#Internal fan failure                    |  | 0x050F | Read Only  | x1 |                     |
| 17                                     | 5#Internal fan failure                    |  | 0x0510 | Read Only  | x1 |                     |

|    |                                                  |  |        |           |    |  |
|----|--------------------------------------------------|--|--------|-----------|----|--|
| 18 | 6#Internal fan failure                           |  | 0x0511 | Read Only | x1 |  |
| 19 | 1#Power failure                                  |  | 0x0512 | Read Only | x1 |  |
| 20 | 2#Power failure                                  |  | 0x0513 | Read Only | x1 |  |
| 21 | 1#Condensate valve failure                       |  | 0x0514 | Read Only | x1 |  |
| 22 | 2#Condensate valve failure                       |  | 0x0515 | Read Only | x1 |  |
| 23 | Filter clogging alarm                            |  | 0x0517 | Read Only | x1 |  |
| 24 | Group control dropout<br>alarm                   |  | 0x0519 | Read Only | x1 |  |
| 25 | Electrode humidification<br>current too small    |  | 0x051A | Read Only | x1 |  |
| 26 | Electrode humidification<br>current is too high  |  | 0x051B | Read Only | x1 |  |
| 27 | Electrode humidification<br>water level too high |  | 0x051C | Read Only | x1 |  |
| 28 | Floor overflow                                   |  | 0x051D | Read Only | x1 |  |
| 29 | Internal power supply<br>voltage too high        |  | 0x051E | Read Only | x1 |  |
| 30 | Internal power supply<br>voltage too low         |  | 0x051F | Read Only | x1 |  |
| 31 | Internal power supply<br>phase loss alarm        |  | 0x0520 | Read Only | x1 |  |
| 32 | Internal power supply<br>reverse phase alarm     |  | 0x0521 | Read Only | X1 |  |
| 33 | Abnormal power grid<br>frequency                 |  | 0x0522 | Read Only | X1 |  |
| 34 | Condensate level too high                        |  | 0x0523 | Read Only | x1 |  |
| 35 | Humidifier bucket<br>maintenance time to         |  | 0x0524 | Read Only | x1 |  |
| 36 | 1#System high pressure                           |  | 0x0529 | Read Only | x1 |  |
| 37 | 1#System low pressure                            |  | 0x052A | Read Only | x1 |  |
| 38 | 2#System high pressure                           |  | 0x052B | Read Only | x1 |  |
| 39 | 2#System low pressure                            |  | 0x052C | Read Only | x1 |  |
| 40 | 1#System high pressure<br>lockout                |  | 0x052D | Read Only | x1 |  |
| 41 | 2#System high pressure<br>lockout                |  | 0x052E | Read Only | x1 |  |
| 42 | 1#System low pressure<br>lockout                 |  | 0x052F | Read Only | x1 |  |
| 43 | 2#System low pressure<br>lockout                 |  | 0x0530 | Read Only | x1 |  |

|    |                                                               |  |        |           |    |  |
|----|---------------------------------------------------------------|--|--------|-----------|----|--|
| 44 | 1#System exhaust temperature protection                       |  | 0x0531 | Read Only | x1 |  |
| 45 | 2#System exhaust temperature protection                       |  | 0x0532 | Read Only | x1 |  |
| 46 | 1#System exhaust temperature lock                             |  | 0x0533 | Read Only | x1 |  |
| 47 | 2#System exhaust temperature lock                             |  | 0x0534 | Read Only | x1 |  |
| 48 | 1#Coil anti freezing protection                               |  | 0x0535 | Read Only | x1 |  |
| 49 | 2#Coil anti freezing protection                               |  | 0x0536 | Read Only | x1 |  |
| 50 | 1#Abnormal refrigeration system                               |  | 0x0537 | Read Only | x1 |  |
| 51 | 2#Abnormal refrigeration system                               |  | 0x0538 | Read Only | x1 |  |
| 52 | 1#Short cycle system alarm                                    |  | 0x0539 | Read Only | x1 |  |
| 53 | 2#Short cycle system alarm                                    |  | 0x053A | Read Only | x1 |  |
| 54 | Infrared humidification water pan over-temperature protection |  | 0x0541 | Read Only | x1 |  |
| 55 | Infrared humidification high water level                      |  | 0x0542 | Read Only | x1 |  |
| 56 | Infrared humidification water shortage                        |  | 0x0543 | Read Only | x1 |  |
| 57 | Pump high water level alarm                                   |  | 0x0544 | Read Only | x1 |  |
| 58 | Pump low water level alarm                                    |  | 0x0545 | Read Only | x1 |  |
| 59 | Smoke alarm                                                   |  | 0x054A | Read Only | x1 |  |
| 60 | 1#Condensation temperature sensing failure                    |  | 0x054B | Read Only | x1 |  |
| 61 | 2#Condensation temperature sensing failure                    |  | 0x054C | Read Only | x1 |  |
| 62 | 1#Inspiratory temperature sensation failure                   |  | 0x054D | Read Only | x1 |  |
| 63 | 2#Inspiratory temperature sensation failure                   |  | 0x054E | Read Only | x1 |  |
| 64 | 1#Exhaust temperature sensation failure                       |  | 0x054F | Read Only | x1 |  |
| 65 | 2#Exhaust temperature sensation failure                       |  | 0x0550 | Read Only | x1 |  |

|    |                                                     |  |               |           |    |  |
|----|-----------------------------------------------------|--|---------------|-----------|----|--|
| 66 | 1#Low Pressure Sensor Failure                       |  | 0x0551        | Read Only | x1 |  |
| 67 | 2#Low Pressure Sensor Failure                       |  | 0x0552        | Read Only | x1 |  |
| 68 | 1#Condensate Pressure Sensor Failure                |  | 0x0553        | Read Only | x1 |  |
| 69 | 2#Condensate Pressure Sensor Failure                |  | 0x0554        | Read Only | x1 |  |
| 70 | 1#Inverter communication failure                    |  | 0x0555        | Read Only | x1 |  |
| 71 | 2#Inverter communication failure                    |  | 0x0556        | Read Only | x1 |  |
| 72 | Reserve                                             |  | 0x0557~0x055F |           |    |  |
| 73 | 1#Low overheat protection                           |  | 0x0560        | Read Only | x1 |  |
| 74 | 2#Low overheat protection                           |  | 0x0561        | Read Only | x1 |  |
| 75 | Reserve                                             |  | 0x0563        |           |    |  |
| 76 | Filter differential pressure failure                |  | 0x0565        | Read Only | x1 |  |
| 77 | 7#Internal fan failure                              |  | 0x0567        | Read Only | x1 |  |
| 78 | Abnormal power outage                               |  | 0x0568        | Read Only | x1 |  |
| 79 | 1#Inverter overcurrent                              |  | 0x0569        | Read Only | x1 |  |
| 80 | 1#Inverter overheating                              |  | 0x056A        | Read Only | x1 |  |
| 81 | 1#Inverter overvoltage                              |  | 0x056B        | Read Only | x1 |  |
| 82 | 1#Inverter undervoltage                             |  | 0x056C        | Read Only | x1 |  |
| 83 | 1#Inverter phase loss                               |  | 0x056D        | Read Only | x1 |  |
| 84 | 1#Inverter fault                                    |  | 0x056E        | Read Only | x1 |  |
| 85 | 1#Internal and external communication failure (EVO) |  | 0x056F        | Read Only | x1 |  |
| 86 | Reserve                                             |  | 0x0575~0x057D |           |    |  |
| 87 | 2#Return air humidity sensing fault                 |  | 0x057E        | Read Only | x1 |  |
| 88 | 3#Return air humidity sensing fault                 |  | 0x057F        | Read Only | x1 |  |
| 89 | 1#Supply air humidity sensing fault                 |  | 0x0580        | Read Only | x1 |  |
| 90 | 2#Supply air humidity sensing fault                 |  | 0x0581        | Read Only | x1 |  |

|     |                                                    |  |        |           |    |  |
|-----|----------------------------------------------------|--|--------|-----------|----|--|
| 91  | 3#Supply air humidity sensing fault                |  | 0x0582 | Read Only | x1 |  |
| 92  | Cold and hot aisle low pressure alarm              |  | 0x0583 | Read Only | x1 |  |
| 93  | Cold and hot aisle high pressure alarm             |  | 0x0584 | Read Only | x1 |  |
| 94  | 8#Internal fan failure                             |  | 0x0588 | Read Only | x1 |  |
| 95  | Channel pressure differential sensor failure       |  | 0x0589 | Read Only | x1 |  |
| 96  | Supply air high temperature alarm                  |  | 0x058A | Read Only | x1 |  |
| 97  | Supply air low temperature alarm                   |  | 0x058B | Read Only | x1 |  |
| 98  | 2#Internal and external communication failure(EV0) |  | 0x0590 | Read Only | x1 |  |
| 99  | Reserve                                            |  | 0x0591 |           |    |  |
| 100 | 1#Outdoor fan failure                              |  | 0x0592 | Read Only | x1 |  |
| 101 | 2#Outdoor fan failure                              |  | 0x0593 | Read Only | x1 |  |
| 102 | 3#Outdoor fan failure                              |  | 0x0594 | Read Only | x1 |  |
| 103 | 4#Outdoor fan failure                              |  | 0x0595 | Read Only | x1 |  |
| 104 | 5#Outdoor fan failure                              |  | 0x0596 | Read Only | x1 |  |
| 105 | 6#Outdoor fan failure                              |  | 0x0597 | Read Only | x1 |  |
| 106 | 7#Outdoor fan failure                              |  | 0x0598 | Read Only | x1 |  |
| 107 | 8#Outdoor fan failure                              |  | 0x0599 | Read Only | x1 |  |
| 108 | 1#Outdoor unit power overvoltage                   |  | 0x059A | Read Only | x1 |  |
| 109 | 1#Outdoor unit power undervoltage                  |  | 0x059B | Read Only | x1 |  |
| 110 | 1#Inverter overcurrent lockout                     |  | 0x059C | Read Only | x1 |  |
| 111 | 1#Inverter overheating lockout                     |  | 0x059D | Read Only | x1 |  |
| 112 | 1#Inverter overvoltage lockout                     |  | 0x059E | Read Only | x1 |  |
| 113 | 1#Inverter undervoltage lockout                    |  | 0x059F | Read Only | x1 |  |
| 114 | 1#Inverter phase loss lockout                      |  | 0x05A0 | Read Only | x1 |  |

|     |                                            |  |        |           |    |  |
|-----|--------------------------------------------|--|--------|-----------|----|--|
| 115 | 1#Inverter fault lockout                   |  | 0x05A1 | Read Only | x1 |  |
| 116 | 2#Inverter overcurrent                     |  | 0x05A2 | Read Only | x1 |  |
| 117 | 2#Inverter overheating                     |  | 0x05A3 | Read Only | x1 |  |
| 118 | 2#Inverter overvoltage                     |  | 0x05A4 | Read Only | x1 |  |
| 119 | 2#Inverter undervoltage                    |  | 0x05A5 | Read Only | x1 |  |
| 120 | 2#Inverter phase loss                      |  | 0x05A6 | Read Only | x1 |  |
| 121 | 2#Inverter fault                           |  | 0x05A7 | Read Only | x1 |  |
| 122 | 2#Inverter overcurrent<br>lockout          |  | 0x05A8 | Read Only | x1 |  |
| 123 | 2#Inverter overheating<br>lockout          |  | 0x05A9 | Read Only | x1 |  |
| 124 | 2#Inverter overvoltage<br>lockout          |  | 0x05AA | Read Only | x1 |  |
| 125 | 2#Inverter undervoltage<br>lockout         |  | 0x05AB | Read Only | x1 |  |
| 126 | 2#Inverter phase loss<br>lockout           |  | 0x05AC | Read Only | x1 |  |
| 127 | 2#Inverter fault lockout                   |  | 0x05AD | Read Only | x1 |  |
| 128 | 1#Outdoor unit power<br>phase loss         |  | 0x05AE | Read Only | x1 |  |
| 129 | 1#Outdoor unit power<br>reverse phase      |  | 0x05AF | Read Only | x1 |  |
| 130 | 2#Outdoor unit power<br>supply overvoltage |  | 0x05B0 | Read Only | x1 |  |
| 131 | 2#Outdoor unit power<br>undervoltage       |  | 0x05B1 | Read Only | x1 |  |
| 132 | 2#Outdoor unit power<br>supply phase loss  |  | 0x05B2 | Read Only | x1 |  |
| 133 | 2#Outdoor unit power<br>reverse phase      |  | 0x05B3 | Read Only | x1 |  |
| 134 | Supply air high humidity<br>alarm          |  | 0x05B7 | Read Only | x1 |  |
| 135 | Supply air low humidity<br>alarm           |  | 0x05B8 | Read Only | x1 |  |
| 136 | 9#Internal fan failure                     |  | 0x05BA | Read Only | x1 |  |
| 137 | 10#Internal fan failure                    |  | 0x05C2 | Read Only | x1 |  |
| 138 | 11#Internal fan failure                    |  | 0x05C3 | Read Only | x1 |  |
| 139 | 12#Internal fan failure                    |  | 0x05C4 | Read Only | x1 |  |

|     |                                                          |  |               |           |    |  |
|-----|----------------------------------------------------------|--|---------------|-----------|----|--|
| 140 | 13#Internal fan failure                                  |  | 0x05C5        | Read Only | x1 |  |
| 141 | 14#Internal fan failure                                  |  | 0x05C6        | Read Only | x1 |  |
| 142 | 15#Internal fan failure                                  |  | 0x05C7        | Read Only | x1 |  |
| 143 | 16#Internal fan failure                                  |  | 0x05C8        | Read Only | x1 |  |
| 144 | Reserve                                                  |  | 0x05CA~0x05CE |           |    |  |
| 145 | Slow water injection alarm                               |  | 0x05DB        | Read Only | x1 |  |
| 146 | Water level switch<br>abnormal alarm                     |  | 0x05DC        | Read Only | x1 |  |
| 147 | Communication failure with<br>BMS                        |  | 0x05D6        | Read Only | x1 |  |
| 148 | 1#Pump inlet pressure<br>failure                         |  | 0x05E4        | Read Only | x1 |  |
| 149 | 2#Pump inlet pressure<br>failure                         |  | 0x05E5        | Read Only | x1 |  |
| 150 | 1#Pump outlet pressure<br>failure                        |  | 0x05E6        | Read Only | x1 |  |
| 151 | 2#Pump outlet pressure<br>failure                        |  | 0x05E7        | Read Only | x1 |  |
| 152 | 1#Pump outlet temperature<br>sensing fault               |  | 0x05E8        | Read Only | x1 |  |
| 153 | 2#Pump outlet temperature<br>sensing fault               |  | 0x05E9        | Read Only | x1 |  |
| 154 | 1#Pump cabinet outdoor<br>temperature sensing<br>failure |  | 0x05EA        | Read Only | x1 |  |
| 155 | 2#Pump cabinet outdoor<br>temperature sensing<br>failure |  | 0x05EB        | Read Only | x1 |  |
| 156 | 1#Pump flow loss lockout<br>alarm                        |  | 0x05EC        | Read Only | x1 |  |
| 157 | 2#Pump flow loss lockout<br>alarm                        |  | 0x05ED        | Read Only | x1 |  |
| 158 | 1#Pump inverter<br>communication failure                 |  | 0x05EE        | Read Only | x1 |  |
| 159 | 2#Pump inverter<br>communication failure                 |  | 0x05EF        | Read Only | x1 |  |
| 160 | 1#Pump inverter failure                                  |  | 0x05F0        | Read Only | x1 |  |
| 161 | 2#Pump inverter failure                                  |  | 0x05F1        | Read Only | x1 |  |
| 162 | Low current alarm                                        |  | 0x05F5        | Read Only | x1 |  |
| 163 | Over current alarm                                       |  | 0x05F6        | Read Only | x1 |  |

|     |                                                |  |        |           |    |  |
|-----|------------------------------------------------|--|--------|-----------|----|--|
| 164 | Electric meter communication fault alarm       |  | 0x05F7 | Read Only | x1 |  |
| 165 | Slow drainage alarm                            |  | 0x05F8 | Read Only | x1 |  |
| 166 | 1#Alarm for theft of outdoor fan in the system |  | 0x05F9 | Read Only | x1 |  |
| 167 | 2#Alarm for theft of outdoor fan in the system |  | 0x05FA | Read Only | x1 |  |
| 168 | Outdoor fan stalling alarm                     |  | 0x05FB | Read Only | x1 |  |
| 169 | Outdoor fan stall lock alarm                   |  | 0x05FC | Read Only | x1 |  |
| 170 | B-phase current too low alarm                  |  | 0x05FD | Read Only | x1 |  |
| 171 | B-phase current excessive alarm                |  | 0x05FE | Read Only | x1 |  |
| 172 | C-phase current too low alarm                  |  | 0x05FF | Read Only | x1 |  |
| 173 | C-phase current excessive alarm                |  | 0x0600 | Read Only | x1 |  |
| 174 | B-phase power voltage is too high              |  | 0x0601 | Read Only | x1 |  |
| 175 | B-phase power voltage is too low               |  | 0x0602 | Read Only | x1 |  |
| 176 | C-phase power voltage is too high              |  | 0x0603 | Read Only | x1 |  |
| 177 | C-phase power voltage is too low               |  | 0x0604 | Read Only | x1 |  |
| 178 | 1#Condenser communication failure (AC fan)     |  | 0x0605 | Read Only | x1 |  |
| 179 | 2#Condenser communication failure (AC fan)     |  | 0x0606 | Read Only | x1 |  |
| 180 | 1#Alarm output                                 |  | 0x0607 | Read Only | x1 |  |
| 181 | 2#Alarm output                                 |  | 0x0608 | Read Only | x1 |  |
| 182 | 1#Air valve fault alarm                        |  | 0x0609 | Read Only | x1 |  |
| 183 | 2#Air valve fault alarm                        |  | 0x060A | Read Only | x1 |  |
| 184 | 1#EEV2M4022 communication failure              |  | 0x060B | Read Only | x1 |  |
| 185 | 2#EEV2M4022 communication failure              |  | 0x060C | Read Only | x1 |  |
| 186 | 3#EEV2M4022 communication failure              |  | 0x060D | Read Only | x1 |  |
| 187 | 4#EEV2M4022 communication                      |  | 0x060E | Read Only | x1 |  |

|     |                                               |  |        |           |    |  |
|-----|-----------------------------------------------|--|--------|-----------|----|--|
|     | failure                                       |  |        |           |    |  |
| 188 | 1#Internal fan communication failure          |  | 0x060F | Read Only | x1 |  |
| 189 | 2#Internal fan communication failure          |  | 0x0610 | Read Only | x1 |  |
| 190 | 3#Internal fan communication failure          |  | 0x0611 | Read Only | x1 |  |
| 191 | Wet film humidification with slow evaporation |  | 0x0612 | Read Only | x1 |  |
| 192 | 1#Internal fan inverter communication failure |  | 0x0613 | Read Only | x1 |  |
| 193 | 1#Internal fan inverter failure               |  | 0x0614 | Read Only | x1 |  |
| 194 | Abnormal humidification alarm                 |  | 0x0615 | Read Only | x1 |  |
| 195 | Fan expansion board communication failure     |  | 0x0616 | Read Only | x1 |  |
| 196 | 1#Low overheat protection lockout             |  | 0x061A | Read Only | x1 |  |
| 197 | 2#Low overheat protection lockout             |  | 0x061B | Read Only | x1 |  |
| 198 | ATS communication failure                     |  | 0x061C | Read Only | x1 |  |
| 199 | ATS failure                                   |  | 0x061D | Read Only | x1 |  |
| 200 | Spray module communication failure            |  | 0x061E | Read Only | x1 |  |
| 201 | Spray module failure                          |  | 0x061F | Read Only | x1 |  |
| 202 | Comp1 AbnormalRunning                         |  | 0x0620 | Read Only | x1 |  |
| 203 | Comp2 AbnormalRunning                         |  | 0x0621 | Read Only | x1 |  |
| 204 | 1#Reservoir Level Fail                        |  | 0x0622 | Read Only | x1 |  |
| 205 | 2#Reservoir Level Fail                        |  | 0x0623 | Read Only | x1 |  |
| 206 | 1#Reservoir Level Low                         |  | 0x0624 | Read Only | x1 |  |
| 207 | 2#Reservoir Level Low                         |  | 0x0625 | Read Only | x1 |  |
| 208 | 1#Power Module Fail                           |  | 0x0626 | Read Only | x1 |  |
| 209 | 2#Power Module Fail                           |  | 0x0627 | Read Only | x1 |  |
| 210 | ElectrodeHumPowerFail                         |  | 0x0628 | Read Only | x1 |  |
| 211 | Windspeed DiffPreCommFail                     |  | 0x0629 | Read Only | x1 |  |
| 212 | Windspeed DiffPreFail                         |  | 0x062A | Read Only | x1 |  |

|          |                     |  |        |            |    |           |
|----------|---------------------|--|--------|------------|----|-----------|
| 213      | 1#SPD Fault         |  | 0x062B | Read Only  | x1 |           |
| 214      | 2#SPD Fault         |  | 0x062C | Read Only  | x1 |           |
| 215      | OutFan1#1CommFail   |  | 0x062D | Read Only  | x1 |           |
| 216      | OutFan1#2CommFail   |  | 0x062E | Read Only  | x1 |           |
| 217      | OutFan2#1CommFail   |  | 0x062F | Read Only  | x1 |           |
| 218      | OutFan2#2CommFail   |  | 0x0630 | Read Only  | x1 |           |
| 219      | Pump1VFDFail Locked |  | 0x0631 | Read Only  | x1 |           |
| 220      | Pump2VFDFail Locked |  | 0x0632 | Read Only  | x1 |           |
| 221      | HeaterOverTemp      |  | 0xB169 | Read Only  | x1 |           |
| 222      | Airflow Loss        |  | 0xB16A | Read Only  | x1 |           |
| NTP Time |                     |  |        |            |    |           |
| 1        | Year                |  | 0x0B00 | Write Only | x1 | 2024~2035 |
| 2        | Month               |  | 0x0B01 | Write Only | x1 | 1~12      |
| 3        | Day                 |  | 0x0B02 | Write Only | x1 | 1~31      |
| 4        | Hour                |  | 0x0B03 | Write Only | x1 | 0~23      |
| 5        | Minute              |  | 0x0B04 | Write Only | x1 | 0~59      |
| 6        | Second              |  | 0x0B05 | Write Only | x1 | 0~59      |