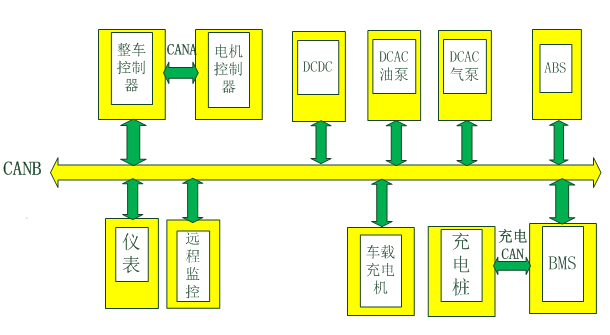
**1.通信结构**

整车网络由以下子网构成，如图所示：

CANB网络:包括车载数字化仪表、整车控制器、电池管理系统、油泵DCAC、气泵DCAC、DC/DC 、空调、车载充电机、远程监控、ABS等。

整车动力系统控制网络CANA：包括整车控制总成和电机控制器。

当接入各种数据记录仪(包括像小仪表、GPS、手持终端之类的数据记录仪器)进行数据采集时，各种数据记录仪也作为CANA或CANB网络的一个临时节点。

****

其中：CANA网络中整车控制器和电机控制器应各有一个120Ω的终端电阻。 CANB网络中整车控制器端和BMS端各有一个终端电阻，其余在此网络的设备应取消CAN终端电阻。

4.1仪表显示整车相关数据

1）仪表显示第一帧

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID(0x0C008980) | | | | | | | 周期MS |
| 整车控制器 | 仪表或信息显示器 | PGN- | | | | | | | 100 |
| P | R | DP | PF | PS | | SA |
| 3 | 0 | 0 | 0 | 137 | | 128 |
| 数据 | | | | | | | | | |
| 位置 | 数据名 | | | | | | 备注 | | |
| BYTE1 | 电机控制器前端电压低字节 | | | | | | 0.1V/bit，-1000 | | |
| BYTE2 | 电机控制器前端电压高字节 | | | | | |
| BYTE3 | 电机控制器后端电压低字节 | | | | | | 0.1V/bit，-1000 | | |
| BYTE4 | 电机控制器后端电压高字节 | | | | | |
| BYTE5 | 电机控制器直流电流低字节 | | | | | | 0.1V/bit，-1000 | | |
| BYTE6 | 电机控制器直流电流高字节 | | | | | |
| BYTE7 | 电机转速低字节 | | | | | | 0.5rpm/bit | | |
| BYTE8 | 电机转速高字节 | | | | | |

2）仪表显示第二帧

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID(0x0C018980) | | | | | | | 周期MS |
| 整车控制器 | 仪表或信息显示器 | PGN- | | | | | | | 100 |
| P | R | DP | PF | PS | | SA |
| 3 | 0 | 0 | 1 | 137 | | 128 |
| 数据 | | | | | | | | | |
| 位置 | 数据名 | | | | | | 备注 | | |
| BYTE1 | 司机加速踏板 | | | | | | 0.4%/bit | | |
| BYTE2 | 司机制动踏板 | | | | | | 0.4%/bit | | |
| BYTE3 | 驱动系统状态 | | | | | | 见下表 | | |
| BYTE4 | 司机操作状态 | | | | | | 见下表 | | |
| BYTE5 | 电机温度 | | | | | | 1℃/bit,-40 | | |
| BYTE6 | 电机控制器温度 | | | | | |
| BYTE7 | 系统故障代码 | | | | | |  | | |
| BYTE8 | 整车控制器LIFE | | | | | |  | | |

驱动系统状态

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 | Bit 0 |
| 故障 | 低压  断电 | 主动  放电 | 反转 | 制动 | 驱动 | Ready | 待机 |

每位1为有效，0为无效

待机：电机控制器内部初始化完毕，CAN开始工作，但是整车控制器未给使能命令：

Ready：电机控制器高压上电完毕，工作正常，可以发送转矩命令；

驱动：电机控制器当前状态为前进；

制动：电机控制器当前状态为发点状态；

反转：电机控制器当前状态为倒车；

主动放电：电机控制器控制IGBT放电，不产生转矩，需在断开主接触器后进行；

故障：电机控制器处于故障状态，根据故障等级对电机控制器发送工作命令；

司机操作状态

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 | Bit 0 |
| 预充继电器控制状态 | | 主接触器控制状态 | | 备用 | 档位信息 | | |

档位信息：

|  |  |  |
| --- | --- | --- |
| 档位信息 | 1 | 前进 |
| 2 | 空挡 |
| 4 | 倒档 |
| 其他 | 保留 |

**系统故障代码：**包括电池故障、电机及电机控制器故障、整车类故障（档位和油门等）以及附件类故障，详见故障代码表。

3）仪表显示第三帧

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID(0x0C028980) | | | | | | | 周期MS |
| 整车控制器 | 仪表或信息显示器 | PGN- | | | | | | | 100 |
| P | R | DP | PF | PS | | SA |
| 3 | 0 | 0 | 2 | 137 | | 128 |
| 数据 | | | | | | | | | |
| 位置 | 数据名 | | | | | | 备注 | | |
| BYTE1 | 整车输出状态 | | | | | | 见下表 | | |
| BYTE2 | 电机制动电流低字节 | | | | | | 0.1A/bit，-1000 | | |
| BYTE3 | 电机制动电流高字节 | | | | | |
| BYTE4 | 电机实际转矩低字节 | | | | | | 分辨率：0.1N.m/bit  偏移量： -3000  范围：-3000N.m～3000N.m | | |
| BYTE5 | 电机实际转矩高字节 | | | | | |
| BYTE6 | 驱动电机个数 | | | | | | 范围：1－254 | | |
| BYTE7 | 驱动电机顺序号 | | | | | | 范围：1－254 | | |
| BYTE8 | 驱动电机状态 | | | | | | 0x01：耗电；0x02：发电；0x03：关闭状态；0x04：准备；0xEF：表示异常；0Xff:表示无效 | | |

整车输出状态

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit2 | Bit1 | Bit 0 |
| 预留 | | | | | 手刹状态  0：无手刹  1：有手刹 | 点刹工作状态  0：无电刹  1：有电刹 | 风扇工作状态  0：未工作  1：工作 |

注：电机制动电流要求单独显示在仪表，电刹、风扇、手刹工作状态要求在仪表是用单独符号显示，有效时点亮符号。

4）仪表显示第四帧

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | | IN | | ID(0x0C038980) | | | | | | 周期MS | |
| 整车控制器 | | 仪表&远程监控 | | PGN- | | | | | | 100 | |
| P | R | DP | PF | PS | SA | |  | | |
| 3 | 0 | 0 | 3 | 137 | 128 | |
| 数据 | | | | | | | | | | | |
| 位置 | | 数据名 | | | | | | 备注 | | | |
| BYTE1 | Bit0 | | 运行模式：  00：异常 01：纯电  10：混动 11：燃油 | | | | |  | | | | |
| Bit1 | |
| Bit2 | | 最高报警等级（一级故障最严重，三级故障为不影响行驶的故障）远程监控上报按01为最轻微故障，11为最高故障上报则可 | | | | | 00：无故障  01：三级故障  10：二级故障  11：一级故障 | | | | |
| Bit3 | |
| Bit4 | |  | | | | |  | | | | |
| Bit5 | |  | | | | |  | | | | |
| Bit6 | |  | | | | |  | | | | |
| Bit7 | |  | | | | |  | | | | |
| BYTE2 | Bit0 | 1：DC-DC温度报警；0：正常 | | | | | |  | | | |
| Bit1 | 1：制动系统报警；0：正常 | | | | | |  | | | |
| Bit2 | 1：DC-DC状态报警；0：正常 | | | | | |  | | | |
| Bit3 | 1：驱动电机控制器温度报警；0：正常 | | | | | |  | | | |
| Bit4 | 1：驱动电机温度报警；0：正常 | | | | | |  | | | |
| Bit5 | 1：高压互锁状态报警；0：正常 | | | | | | 主接触器粘连时上报此故障 | | | |
| Bit6 |  | | | | | |  | | | |
| Bit7 |  | | | | | |  | | | |
| BYTE3 | | 车速(仪表未用) | | | | | |  | | | |
| BYTE4 | |  | | | | | |  | | | |
| BYTE5 | |  | | | | | |  | | | |
| BYTE6 | | 可充电储能装置故障总数 | | | | | | 49个（区间1－99） | | | |
| BYTE7 | | 驱动电机故障总数 | | | | | | 15个（区间100－199） | | | |
| BYTE8 | | 其他故障总数 | | | | | | 19个（区间201－254） | | | |

**仪表发送数据第一帧**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | | IN | ID(0x0C6CA4D7) | | | | | | | 周期MS |
| 仪表 | | 整车控制器&远程监控 | PGN- | | | | | | | 100 |
| P | R | DP | PF | | PS | SA |
| 3 | 0 | 0 | 202 | | 164 | 215 |
| 数据 | | | | | | | | | | |
| 位置 | | 数据名 | | | | | 备注 | | | |
| BYTE1 | | 整车气压1(范围:0-1MPa) | | | | | 精度:0.004MPa/bit，偏移量:0MPa | | | |
| BYTE2 | | 气泵油温 | | | | | 精度:1℃/bit,偏移量:-40℃ | | | |
| BYTE3 | | 整车气压2(范围:0-1MPa) | | | | | 精度:0.004MPa/bit，偏移量:0MPa | | | |
| BYTE4 | Bit0 | 定义：位置灯开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit1 | 定义：后雾灯开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit2 | 定义：前雾灯开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit3 | 定义：危急报警开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit4 | 定义：右转向灯开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit5 | 定义：左转向灯开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit6 | 定义：近光灯开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit7 | 定义：远光灯开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| BYTE5 | Bit0 | 预留 | | | | |  | | | |
| Bit1 | 预留 | | | | |  | | | |
| Bit2 | 预留 | | | | |  | | | |
| Bit3 | 预留 | | | | |  | | | |
| Bit4 | 定义：中门开信号开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit5 | 定义：前门开信号开关 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit6 | 手刹信号 | | | | | 0：关闭状态 1：开启状态 | | | |
| Bit7 |  | | | | | 0：关闭状态 1：开启状态 | | | |
| BYTE6 | | //累计里程 | | | | | 精度：0.1km  范围：0－999999.9km | | | |
| BYTE7 | |
| BYTE8 | |

**仪表发送数据第二帧**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID(0x0CFE6CEE) | | | | | | | 周期MS |
| 仪表 | 整车控制器&远程监控 | PGN- | | | | | | | 50 |
| P | R | DP | PF | PS | | SA |
| 3 | 0 | 0 | 254 | 108 | | 238 |
| 数据 | | | | | | | | | |
| 位置 | 数据名 | | | | | | 备注 | | |
| BYTE1 | 预留 | | | | | |  | | |
| BYTE2 | 预留 | | | | | |  | | |
| BYTE3 | 预留 | | | | | |  | | |
| BYTE4 | 预留 | | | | | |  | | |
| BYTE5 | 预留 | | | | | |  | | |
| BYTE6 | 预留 | | | | | |  | | |
| BYTE7 | 定义：车速信号 | | | | | | 精度：1/256km/h  偏移量：0 | | |
| BYTE8 |

**DCDC部分**

1) 低压电源（DC/DC）发送报文

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID（0x18FF12F7） | | | | | | | | | 数据  长度 | 周期  MS |
| DC/DC | 所有CANB结点接收 | PGN- | | | | | | | | | 8字节 | 500 |
| P | R | | DP | PF | | PS | | SA |
| 6 | 0 | | 0 | 255 | | 18 | | 247 |
| 数 据 | | | | | | | | | | | | |
| 位置 | 数 据 名 | | | 分辨率 | | | 偏移量 | | 范 围 | | | |
| Byte1 | 输出电压低字节 | | | 0.1V/Bit | | | 0 | | 0---100V | | | |
| Byte2 | 输出电压高字节 | | |
| Byte3 | 输出电流低字节 | | | 0.1A/Bit | | | 0 | | 0---500A | | | |
| Byte4 | 输出电流高字节 | | |
| Byte5 | DC/DC工作状态 | | |  | | |  | | 见下表DC/DC工作状态 | | | |
| Byte6 | DC/DC故障代码 | | |  | | |  | | 见下表DC/DC故障代码 | | | |
| Byte7 | 保留 | | |  | | |  | |  | | | |
| Byte8 | 保留 | | |  | | |  | |  | | | |

DC/DC工作状态 保留位为1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit2 | Bit1 | Bit 0 |
| 保留 | 保留 | 保留 | 保留 | 保留 | 保留 | 停机：00； 充电中：01  充电完成：10；保留：11； | |

DC/DC故障代码 1：为故障；0：为正常；保留位为1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| CAN  中断 | 过热 | 短路 | 过流 | 限流 | 输出过压 | 输入过压 | 输入  欠压 |

2) DC/DC控制报文

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | | IN | ID（0x10262B27） | | | | | | | | 数据  长度 | 周期  MS |
| 整车控制器 | | DC/DC | PGN- | | | | | | | | 8字节 | 500 |
| P | R | DP | PF | | PS | SA | |
| 4 | 0 | 0 | 38 | | 43 | 39 | |
| 数 据 | | | | | | | | | | | | |
| 位置 | 数 据 名 | | | | 分辨率 | | 偏移量 | | | 范围 | | |
| BYTE1 | DC/DC控制工作命令 | | | |  | |  | | | 见下表控制工作命令 | | |
| BYTE2 | 控制系统生命信号Life | | | | 1/Bit | | 0 | | | 0---255 | | |
| BYTE3 | 保留（0xff） | | | |  | |  | | |  | | |
| BYTE4 | 保留（0xff） | | | |  | |  | | |  | | |
| BYTE5 | 保留（0xff） | | | |  | |  | | |  | | |
| BYTE6 | 保留（0xff） | | | |  | |  | | |  | | |
| BYTE7 | 保留（0xff） | | | |  | |  | | |  | | |
| BYTE8 | 保留（0xff） | | | |  | |  | | |  | | |

DC/DC工作状态 保留位为1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit2 | Bit1 | Bit 0 |
| 保留 | 保留 | 保留 | 保留 | 保留 | 保留 | 停机：01； 工作：00  保留：10、11； | |

**4.3 油泵（DC/AC）**

1) 低压电源（DC/AC）发送报文

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID（0x18019888） | | | | | | | 数据  长度 | 周期  MS |
| 油泵控制器 | 所有CANB结点接收 | PGN- | | | | | | | 8字节 | 100 |
| P | R | DP | PF | | PS | SA |
| 6 | 0 | 0 | 1 | | 152 | 136 |
| 数 据 | | | | | | | | | | |
| 位置 | 数 据 名 | | | | | 备 注 | | | | |
| BYTE1 | 保留 | | | | |  | | | | |
| BYTE2 | 保留 | | | | |  | | | | |
| BYTE3 | 输出电压低字节 | | | | | 电压增益为：1V/bit  电压范围：0-----500V | | | | |
| BYTE4 | 输出电压高字节 | | | | |
| BYTE5 | 输出电流低字节 | | | | | 电流增益为：1A/bit  范围：0----100A | | | | |
| BYTE6 | 输出电流高字节 | | | | |
| BYTE7 | 散热器温度 | | | | | 10C/bit | | | | |
| BYTE8 | 故障代码 | | | | | 见下表 | | | | |

故障代码flag标志位 1：为故障；0：为正常

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit2 | Bit1 | Bit 0 |
| 缺相 | 过载 | 短路 | 过热 | CAN  中断 | 驱动电源 | 输入过压 | 输入欠压 |

2) 低压电源（DC/AC）接收报文

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID（0x180A8898） | | | | | | | 数据  长度 | 周期  MS |
| 整车控制器 | 油泵控制器 | PGN- | | | | | | | 8字节 | 100 |
| P | R | DP | PF | | PS | SA |
| 6 | 0 | 0 | 10 | | 136 | 152 |
| 数 据 | | | | | | | | | | |
| 位置 | 数 据 名 | | | | | 备 注 | | | | |
| BYTE1 | 输出电压和频率 | | | | | 见下面速度真值表4定义 | | | | |
| BYTE2 | 生命信号 | | | | | 0---255 | | | | |
| BYTE3 | 保留 | | | | |  | | | | |
| BYTE4 | 保留 | | | | |  | | | | |
| BYTE5 | 保留 | | | | |  | | | | |
| BYTE6 | 保留 | | | | |  | | | | |
| BYTE7 | 保留 | | | | |  | | | | |
| BYTE8 | 保留 | | | | |  | | | | |

输出电压和频率标志位 1：为真 0：为假

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit2 | Bit1 | Bit 0 |
| 0 | 0 | 0 | 0 | 0 | K3 | K2 | K1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 频率 | 电压V | K1 | K2 | K3 |
| 50HZ | 220 | 0 | 0 | 0 |
| 45HZ | 198 | 1 | 0 | 0 |
| 40HZ | 176 | 0 | 1 | 0 |
| 35HZ | 154 | 1 | 1 | 0 |
| 30HZ | 132 | 0 | 0 | 1 |
| 25HZ | 110 | 1 | 0 | 1 |
| 20HZ | 88 | 0 | 1 | 1 |
| 关机 | 0 | 1 | 1 | 1 |

**4.4气泵（DC/AC）**

1) 低压电源（DC/AC）发送报文

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID（0x1805A89C） | | | | | | | 数据  长度 | 周期  MS |
| 气泵控制器 | 所有CANB结点接收 | PGN- | | | | | | | 8字节 | 100 |
| P | R | DP | PF | | PS | SA |
| 6 | 0 | 0 | 5 | | 168 | 156 |
| 数 据 | | | | | | | | | | |
| 位置 | 数 据 名 | | | | | 备 注 | | | | |
| BYTE1 | 输入电压低字节 | | | | | 电压增益为：1V/bit  电压范围：0-----1000V | | | | |
| BYTE2 | 输入电压高字节 | | | | |
| BYTE3 | 输出电压低字节 | | | | | 电压增益为：1V/bit  电压范围：0-----500V | | | | |
| BYTE4 | 输出电压高字节 | | | | |
| BYTE5 | 输出电流低字节 | | | | | 电流增益为：1A/bit  范围：0----100A | | | | |
| BYTE6 | 输出电流高字节 | | | | |
| BYTE7 | 散热器温度 | | | | | 1°C/bit | | | | |
| BYTE8 | 故障代码 | | | | | 见下表 | | | | |

故障代码flag标志位 1：为故障；0：为正常

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit2 | Bit1 | Bit 0 |
| 缺相 | 过载 | 短路 | 过热 | CAN  中断 | 驱动电源 | 输入过压 | 输入  欠压 |

2) 低压电源（DC/AC）接收报文

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | IN | ID（0x18149CA8） | | | | | | | 数据  长度 | 周期  MS |
| 整车控制器 | 气泵控制器 | PGN- | | | | | | | 8字节 | 100 |
| P | R | DP | PF | | PS | SA |
| 6 | 0 | 0 | 20 | | 156 | 168 |
| 数 据 | | | | | | | | | | |
| 位置 | 数 据 名 | | | | | 备 注 | | | | |
| BYTE1 | 输出电压和频率 | | | | | 见下面速度真值表7定义 | | | | |
| BYTE2 | 生命信号 | | | | | 0---255 | | | | |
| BYTE3 | 保留 | | | | |  | | | | |
| BYTE4 | 保留 | | | | |  | | | | |
| BYTE5 | 保留 | | | | |  | | | | |
| BYTE6 | 保留 | | | | |  | | | | |
| BYTE7 | 保留 | | | | |  | | | | |
| BYTE8 | 保留 | | | | |  | | | | |

输出电压和频率标志位 1：为真 0：为假

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit2 | Bit1 | Bit 0 |
| 0 | 0 | 0 | 0 | 0 | K3 | K2 | K1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 频率 | 电压V | K1 | K2 | K3 |
| 50HZ | 380 | 0 | 0 | 0 |
| 关机 | 0 | 1 | 1 | 1 |

**4.3 ABS发送报文**

**匹配科密、亚太、元丰ABS**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OUT | | IN | ID(0x18F0010B) | | | | | | | 周期MS |
| ABS | | 广播 | PGN- | | | | | | | 100 |
| P | R | DP | | PF | PS | SA |
| 6 | 0 | 0 | | 240 | 1 | 11 |
| 数据 | | | | | | | | | | |
| 位置 |  | 数据名 | | | | 备注 | | | | |
| BYTE1 | Bit0 | 保留 | | | |  | | | | |
| Bit1 | 保留 | | | |  | | | | |
| Bit2 | 保留 | | | |  | | | | |
| Bit3 | 保留 | | | |  | | | | |
| Bit4 | ABS active | | | | 00：非运行状态（非ABS调节压力）  01：运行状态（ABS调节压力）  10：保留  11：无效值 | | | | |
| Bit5 |
| Bit6 | 保留 | | | |  | | | | |
| Bit7 | 保留 | | | |  | | | | |
| BYTE2 | | 预留 | | | |  | | | | |
| BYTE3 | | 预留 | | | |  | | | | |
| BYTE4 | | 预留 | | | |  | | | | |
| BYTE5 | | 预留 | | | |  | | | | |
| BYTE6 | | 预留 | | | |  | | | | |
| BYTE7 | | 预留 | | | |  | | | | |
| BYTE8 | | 预留 | | | |  | | | | |

注：当ABS工作状态为0时，若此时车速大于5Km/h,整车控制器接收到刹车踏板动作时，根据制动踏板开度来控制能量回收大小；若此时车速小于5Km/h，无能量回收。当ABS工作状态为1时，无能量回收。