Power Rider 12CH Accessories

RD000050

Version 1.0

REDLER Technologies

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System Overview

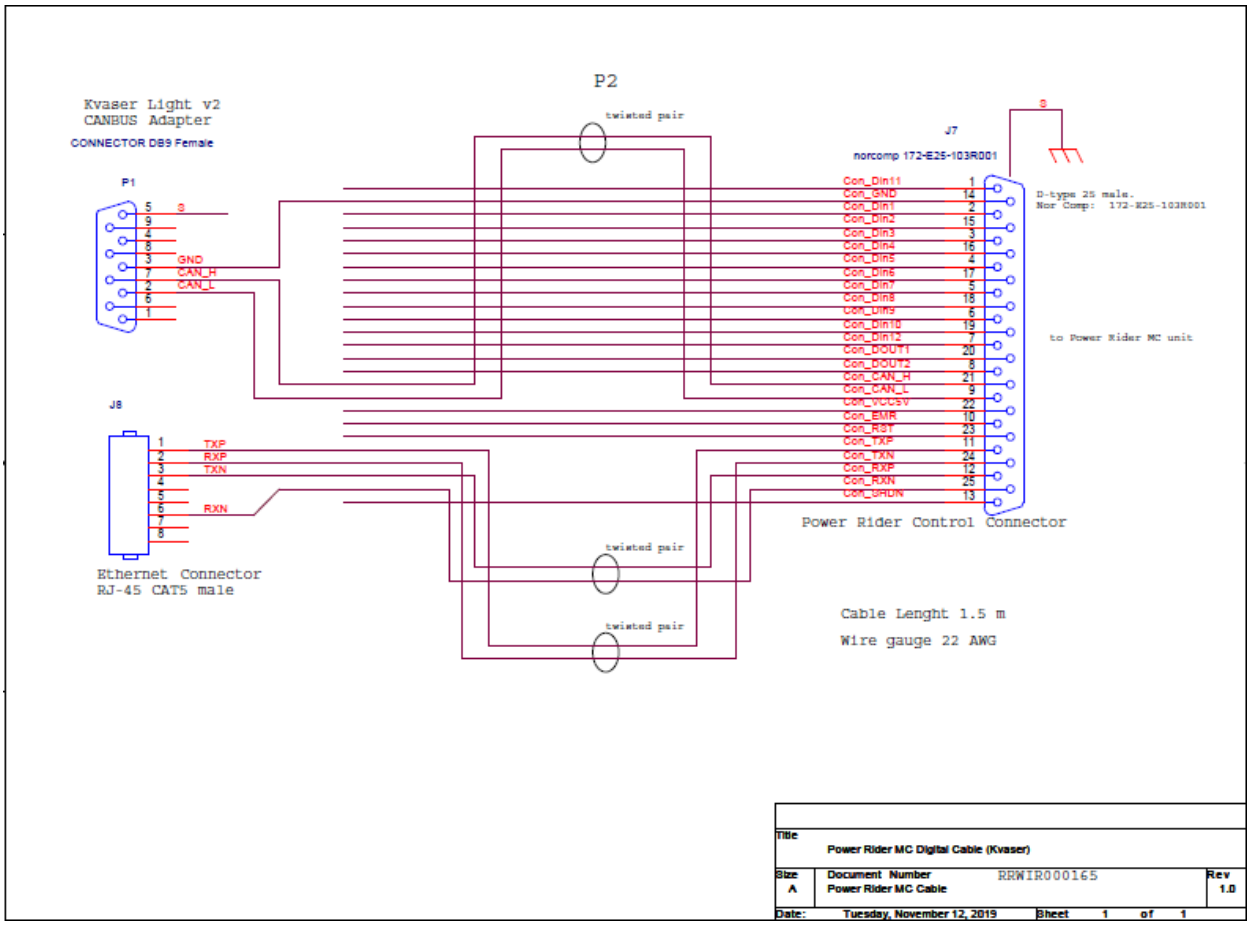
The Power Rider is a 12 channel Smart Circuit Breaker. The Power Rider that is Based on Redler Technologies' patent (PCT Pending) is an automatic, highly reliable, fully redundant electronic circuit breaker that includes means for preventing short-circuit overcurrent.

The Power Rider is designed in a unique approach which disclose the short in a Nano- seconds time frame and enable a short current from a charge reservoir while disconnecting the switch transistors. This mode of operation protects the Power Rider circuit breaker switch transistors from the short maximum current and the power source from the short currents.

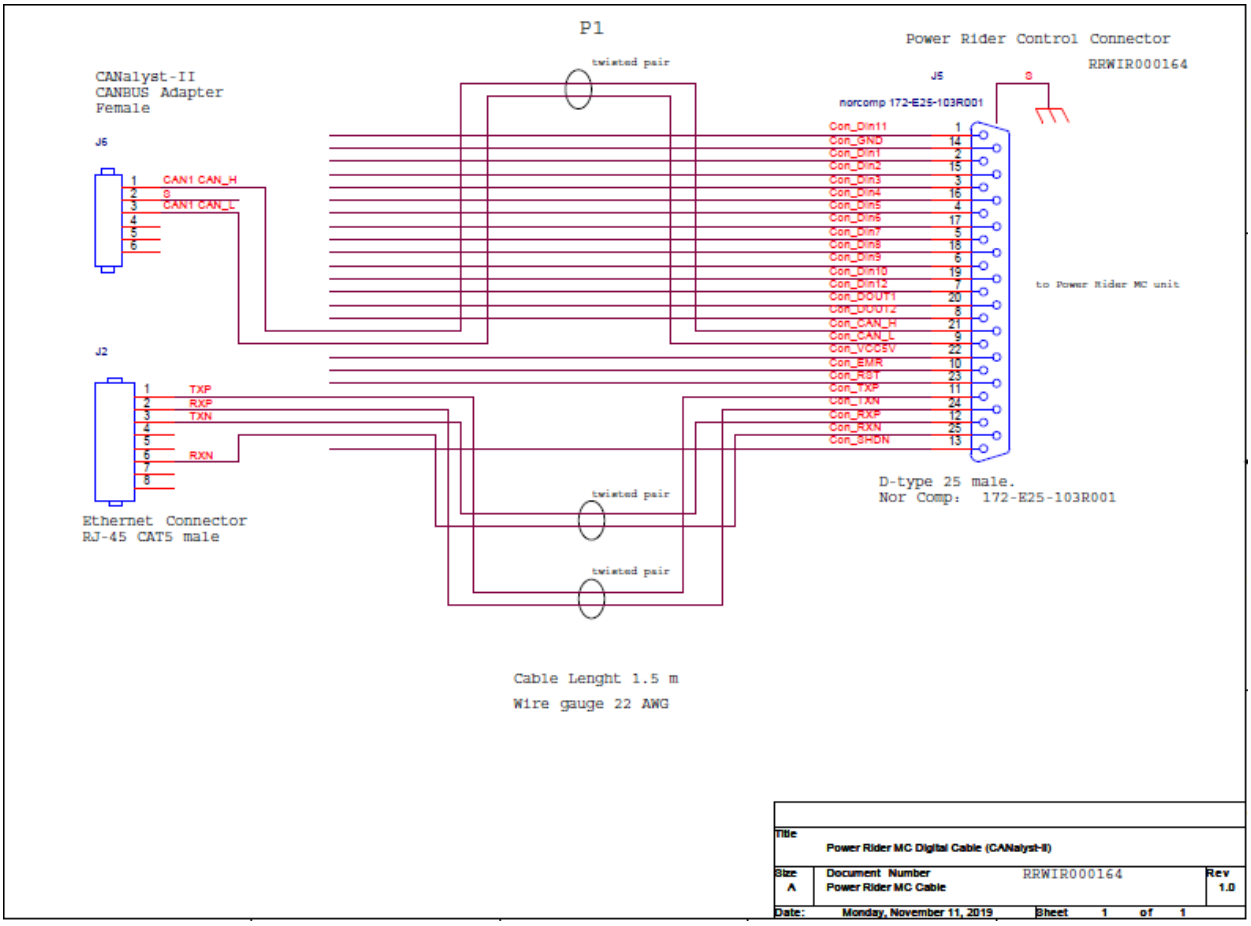
*Please refer to the Interface Control Document RRICD000006 for more information.

1. Power Rider Harness

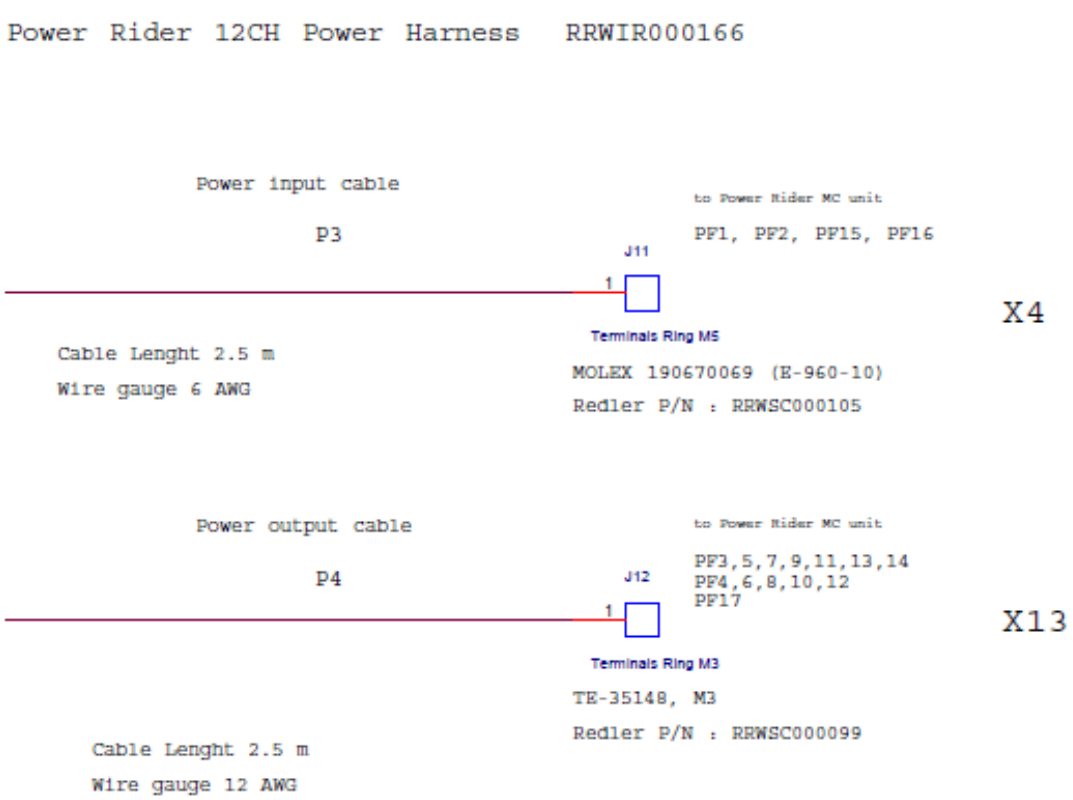
1.1. Power Rider J2 Control Harness RRWIR000165 (Kvaser)



1.2. Power Rider J2 Control Harness RRWIR000164 (CANalyst-II)



1.3. Power Rider Power Harness RRWIR000166



2. Power Rider CANBUS adapters

2.1. Power Rider Kvaser CANBUS adapter RRAUX000012

Kvaser Leaf Light HS v2

EAN: 73-30130-00685-0

Redler P/N: RRAUX000012

The Kvaser Leaf Light HS v2 represents one of the easiest and lowest-cost methods of connecting a computer to a CAN bus network. With its USB 2.0 compliant connector and 9-pin D-SUB connector, the Leaf Light HS v2's sleek, ergonomically designed housing is both robust enough for everyday use and small and flexible enough to be used in space-constrained applications. Now with galvanic isolation as standard.

2.2. Power Rider CANalyst-II CANBUS adapter RRAUX000013

CANalyst-II USB to CAN Analyzer CAN-Bus Adapter

Redler P/N: RRAUX000013

CANalyst-II Analyzer is dual-channel intelligent CAN interface module with CAN-bus protocol analysis capabilities. PC interface supports USB1.1 protocol and is USB 2.0 compliant. Programmable CAN-bus communication Baud rates from 10Kbps to 1Mbps. CANalyst-II Analyzer: isolated with independently isolated DC-DC power module and High-speed magnetic coupling isolation module in the CAN-bus terminal. Buffer size:1000 frames length buffer for transmit (with auto repeat transmit when failed) per channel,2000 frames length for receive per channel. Operating temperature: -20 ~ 85 ℃. Physical size: (length) 70mm * (width) 45mm * (height) 24mm.

3. Power Rider Software

3.1. Power Rider GUI RRAUX000014

Power Rider Graphical User Interface (GUI)

Redler P/N: RRAUX000014

Power Rider GUI configures programs, maintains, and analyzes every feature and capability in Power Rider's Smart Circuit Breaker family products.

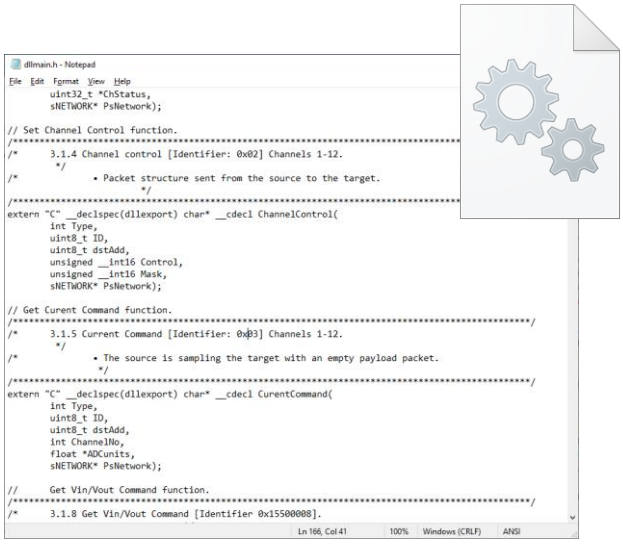
The GUI providing a flexible, smart, advanced user-friendly tools, and easy unit configuration environment.

3.2. Power Rider DLL package

Dynamic-link library (DLL) for Windows application.

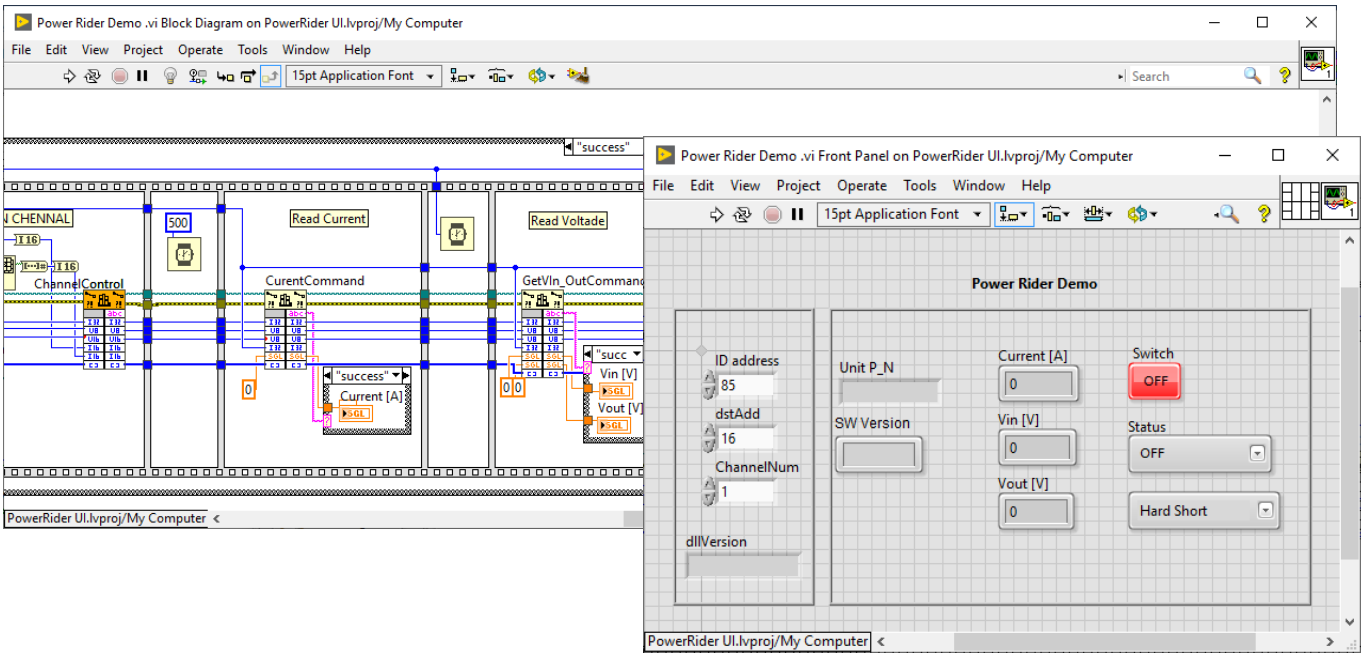
The DLL file contains all the functionality of the Power Rider unit operation.

Significantly shorten Host software development and integration time.



3.3. Power Rider LabVIEW Demo package

LabVIEW 2017 base Power Rider Demo application.

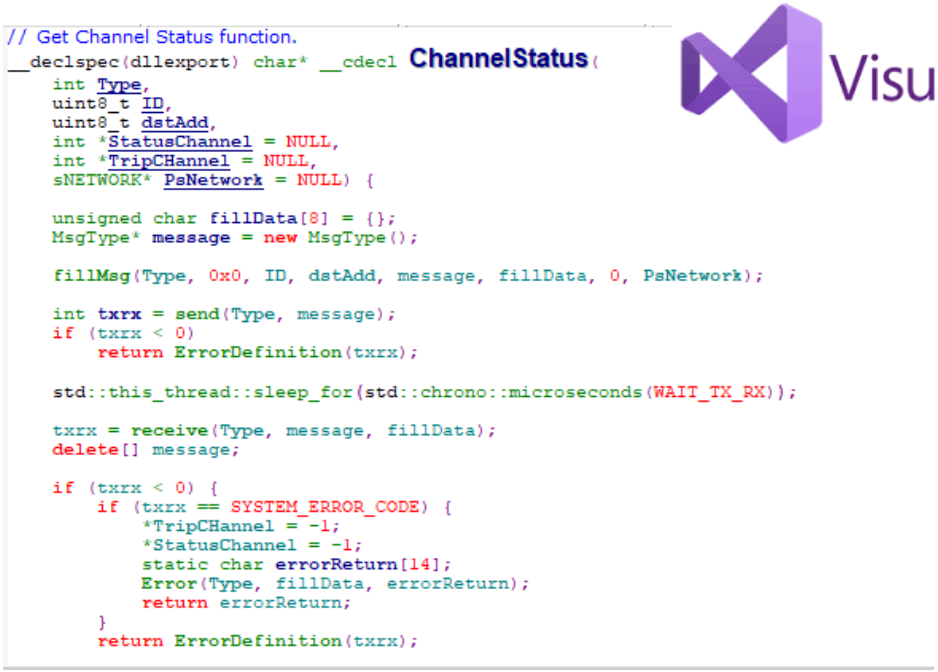


3.4. Power Rider Visual Studio package

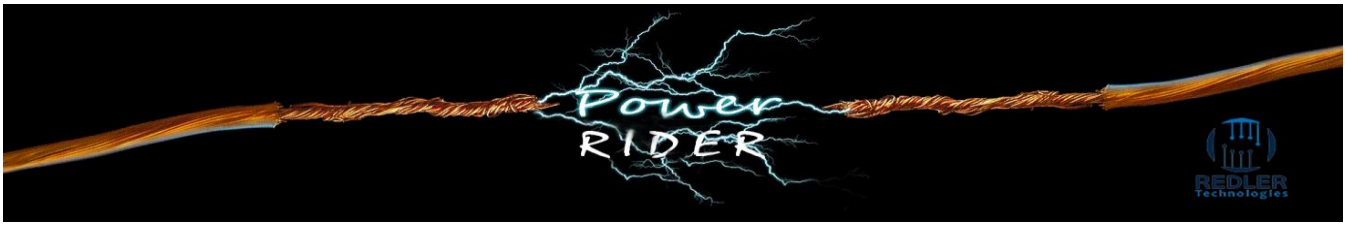
A Power Rider Visual Studio project contains all the functionality of the Power Rider unit operation (Host).

Full project provided including source code.

Significantly shorten Host software development and integration time.



```
// Get Channel Status function.
__declspec(dllexport) char* __cdecl ChannelStatus(
    int Type,
    uint8_t ID,
    uint8_t dstAdd,
    int *StatusChannel = NULL,
    int *TripCHannel = NULL,
    sNETWORK* PsNetwork = NULL) {

    unsigned char fillData[8] = {};
    MsgType* message = new MsgType();

    fillMsg(Type, 0x0, ID, dstAdd, message, fillData, 0, PsNetwork);

    int txrx = send(Type, message);
    if (txrx < 0)
        return ErrorDefinition(txrx);

    std::this_thread::sleep_for(std::chrono::microseconds(WAIT_TX_RX));

    txrx = receive(Type, message, fillData);
    delete[] message;

    if (txrx < 0) {
        if (txrx == SYSTEM_ERROR_CODE) {
            *TripCHannel = -1;
            *StatusChannel = -1;
            static char errorReturn[14];
            Error(Type, fillData, errorReturn);
            return errorReturn;
        }
        return ErrorDefinition(txrx);
```

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