

POWERCOMMAND NETWORKS

AVAILABLE PROTOCOLS FOR THIRD PARTY INTERFACE

Listed below are the available protocols currently supported by Cummins Power Generation (CPG) for interfacing the PowerCommand Network with third party software/systems. These protocols are the only certified protocols by CPG Engineering.

Lontalk (Echelon Lonworks) – The PowerCommand network interface modules can be directly connected to any third party system that can support communication to FTT-10 Lonworks devices. The necessary External Interface Files (.XIF) and Lonworks format files are available from CPG to allow the customer or system integrator to incorporate our devices into their existing Lonworks network. This option is NOT available with networks connected to a DMC II or DMC III Master Control.

Modbus RTU – Using the Modlon Gateway device (P/N 0541-0717) the PowerCommand Network can supply basic information for Gensets and Transfer Switches through pre-defined Modbus Holding registers. The Modlon Gateway can connect to any PowerCommand Genset (PCC2100, 3100, 3200), OTPC/BTPC Transfer Switch or Control Communications Module (CCM-G or CCM-T). It is necessary to create a Lonworks database with Lonmaker for Windows™ to interconnect all PowerCommand network interface modules to the Modlon Gateway. The Modlon Gateway has three basic configurations: 1) 5 Gensets, 5 ATS's and 2 DIM's; 2) 10 Gensets; 3) 10 ATS's. The Modbus port on the Modlon Gateway is configured for RS-232 with the following communications parameters: 9600 baud, 8 bit, No parity, 1 stop bit.

Modbus TCP – Using the Lonworks Bridge device (P/N 0300-0014-01) the PowerCommand Network can supply basic information for Gensets and Transfer Switches through pre-defined Modbus Holding registers. The Lonworks Bridge can connect to any PowerCommand Genset (PCC2100, 3100, 3200), OTPC/BTPC Transfer Switch or Control Communications Module (CCM-G or CCM-T). It is necessary to create a Lonworks database with Lonmaker for Windows™ to interconnect all PowerCommand network interface modules to the Lonworks Bridge. The Lonworks Bridge can be configured for the specific combination of devices on your project. The Ethernet port on the Lonworks Bridge is a standard RJ-45 10Base-T connection.

NOTE: The Lonworks Bridge is only available via an RFQ from the factory.

SNMP – Using the Lonworks Bridge device (P/N 0300-0014-02) the PowerCommand Network can supply basic information for Gensets and Transfer Switches through pre-defined SNMP objects. The Lonworks Bridge can connect to any PowerCommand Genset (PCC2100, 3100, 3200), OTPC/BTPC Transfer Switch or Control Communications Module (CCM-G or CCM-T). It is necessary to create a Lonworks database with Lonmaker for Windows™ to interconnect all PowerCommand network interface modules to the Lonworks Bridge. The Lonworks Bridge can be configured for the specific combination of devices on your project. The Ethernet port on the Lonworks Bridge is a standard RJ-45 10Base-T.

NOTE: The Lonworks Bridge is only available via an RFQ from the factory.

Serial (Proprietary ASCII) – This option is only available on the PCC3100 Genset Control in a non-parallel configuration. It requires a Serial Communications Module (P/N PSCM 100) in each Genset and the Serial Configuration Tool Kit (P/N PSCT 100) to configure the module(s). The protocol is a proprietary ASCII protocol. Upon receipt of a Non-Disclosure Agreement from the customer, CPG will supply a Serial Communications Protocol manual that will detail the protocol structure and commands. The customer is responsible for developing the necessary software interface or driver to communicate with the Serial Communications Module.

NOTE: Use of Serial Communications Module precludes use of Genset Communications Module (GCM) as both modules use the same connection point to the control.

OPC (OLE for Process Control) – This option is only available from the DMC II Master Control, iLink or a PowerCommand PULSE workstation. The majority of information that is available in the iLink, DMC II or the PULSE workstation can be supplied via an OPC Server. Customer must connect to the iLink, DMC II or PULSE workstation via Ethernet and have an OPC client capable software package.

Johnson Controls Metasys system – Johnson Controls has a published interface solution using the Serial Communications Module to their Metasys BMS package. This is the only pre-engineered solution for Metasys. If interfacing Metasys to a Cummins Lonworks network or a Digital Master Control on a Cummins Paralleling System other interconnection methods must be used.