POWERMANAGER®
Permissive and Load Shed Controller (PM-PLS)

Model 6709 PM-PLS

Features

The Modular Power System (MPS) product line is designed to support operation even if a failure occurs to the PowerManager® System Controller (PM-SC) or to the RS-485 data highway. Standard backup mode allows human intervention to manually bring the generators on-line utilizing the capabilities built into the generator controllers. Load is then sequenced manually by actuating manual push buttons inside the PM-SC. An optional redundant load sequencing controller is available for sites which desire fully automatic backup operation; this redundant controller is Generac's PowerManager® Permissive and Load Shed Controller (PM-PLS).

The PM-PLS is capable of monitoring online generators and provides automatic permissive and load shed functions similar to the PM-SC. The PM-PLS is configured by the dealer's trained MPS technician with the same parameters configured in the PM-SC. Additional site wiring is required to support this level of redundancy. For a complete description, refer to the PM-SC Operator's Manual.

Specifications

Manufactured By	Generac Power Systems
Power Requirement	24VDC from PM-SC
PLC Siemens S7-12000	
Display Unit	Siemens KP 200
Relay Contacts	4PDT, 5A @ 250VAC
Environmental	
Temperature	0° to 50°C
Humidity	0 to 95% Non-condensing
Packaging and Mounting	
Enclosure Types Available	NEMA 12
Mounting	Wall Mount
Weight	39 lbs
Dimensions	20" H x 16" W x 6" D
Finish	ANSI 61 Gray, Baked Powder Coat

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Automatic Backup Operation

The MPS is normally in an operational ready status with all key switches in the "auto" position and all generators communicating to the PM-SC. If the system's communications are disrupted, an alarm is generated and the PM-PLS is activated. Once activated, the PM-PLS takes over the PM-SC's load sequencing functionality through a hardwire status contact from each generator.

The redundant mode, operational sequence is as follows:
- When Utility fails, the transfer switch(es) will provide a 2-wire start to the system controller and a redundant start to each of the generators. The generators will all start automatically.
- Generators 1 and 2 will perform dead bus arbitration through a hardwired handshake line and then one of the generators will safely energize the dead bus. All remaining units will then actively synchronize (functionality internal to each generator) to the enrgized bus.
- The PM-PLS receives hardwired on-line status from each generator. It uses this information to manage system permissive and load shed functionality.
- While system communications are lost, generator load sharing is maintained through functionality internal to the generator controllers.

For more details on the operation of permissive and load shed signals, refer to the PM-SC Operator's Manual.