

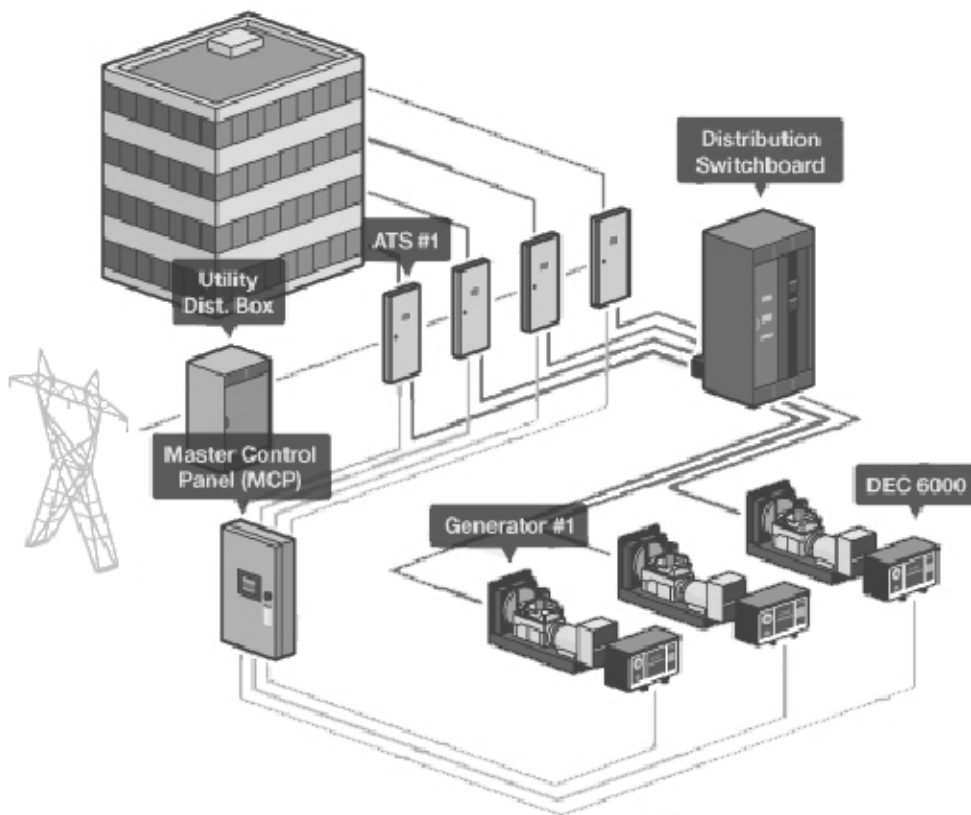


Decision-Maker® Paralleling System

The Kohler® Decision-Maker® Paralleling System (DPS) is a complete off-the-shelf user-configurable generator paralleling solution. Because the DPS system uses standard components, it goes directly from a configured order to manufacture, eliminating the complexity, cost, and time involved in engineering custom paralleling switchgear.

The DPS system consists of:

- Decision-Maker® 6000 Generator Set Controllers
- Master Control Panel MCP 3000
- Power Distribution Switchboards
- Automatic Transfer Switches



Operation

System Operation

When the master control panel receives a start signal from one or more automatic transfer switch(es), the lower priority loads are signaled to shed and the generators are signaled to start. The first generator to reach rated frequency and voltage connects to the generator paralleling bus. The remaining generators then synchronize to the paralleling bus. As additional generators connect to the bus, lower priority loads are signaled to add.

Generator Management

Generator management optimizes the number of on-line generator sets based on the kW demand of the load. After a user-configured load stable time delay, generator management starts and stops generator sets based on the requirements of the load.

The user assigns each generator a priority level. Higher priority units are sequenced on in the order of their priority and taken off in reverse priority. The generator sets soft-load and unload based on setpoints in the Master Control Panel (MCP 3000). User-defined setpoints determine percent load level and the time delay before each generator set is brought on or taken off line.

Load Management

Load management (Load Add/Shed) provides dry contacts for use by customers to control the loads connected to the generator sets.

Seven (7) load shed relays are provided. The customer configures these relays to be associated with a priority level. The customer also configures when each priority level will be signal to disconnect (shed) and reconnect (add).

Load add is based on the number of generator sets on-line and/or kW capacity. The method of load add is user configurable. The system can be configured to use the number of generator sets on-line and kW capacity.

No Load Test

No load test allows the user to test the system from the touchscreen on the master control panel. The first generator to reach rated frequency and voltage connects to the generator paralleling bus. The remaining generators then synchronize to the paralleling bus.

System Components

Decision-Maker 6000 Generator Set Controller



Generator set controller for paralleling systems. One required on each generator set in the system.

- First-on logic
- Automatic synchronizer
- kW load sharing
- kVAR load sharing
- Protective relays
- Generator set control and protection
- Modbus® RS-485 communication

See Specification Sheet G6-107 for controller specifications.

Automatic Transfer Switches (ATS)



Kohler Co. offers a variety of automatic transfer switches to suit your application.

- Standard and programmed-transition models
- Closed-transition models
- Bypass/isolation switches
- IBC Seismic Certification available for selected models

See KohlerPower.com for available Kohler® ATS models and specification sheets. Contact your local Kohler® Power Systems distributor for more information,

Modbus® is a registered trademark of Schneider Electric.

Power Distribution Switchboard (optional)



- Switchboard configuration allows for manually or electrically operated breakers
- 250–5000 amp circuit breakers, 100% rated
- Bus ratings 2000 A through 5000 A
- Interrupting rating 65 kAIC or 100 kAIC
- UL 891 listed
- NEMA 1 and NEMA 3R enclosures available
- IBC Seismic Certification available

See Specification Sheet G6-112 for switchboard and circuit breaker specifications and ratings.

Paralleling and Distribution Breakers

The generator paralleling breaker can be mounted on the generator set or remote mounted in the Power Distribution Switchboard.

- I-line, NT, NW, and R frame style breakers available
- All circuit breakers are 100% rated
- Circuit breakers from 250 to 5000 amps available
- Fixed mounted breakers
- Electrically or manually operated breakers

See Specification Sheet G6-112 for switchboard and circuit breaker specifications and ratings.

System Components, continued

MCP 3000 Master Control Panel (optional)



The MCP 3000 Master Control Panel provides generator management and load management (load add/shed) for generator sets equipped with a Decision-Maker® 6000 controller. One MCP 3000 manages up to eight (8) paralleled generator sets.

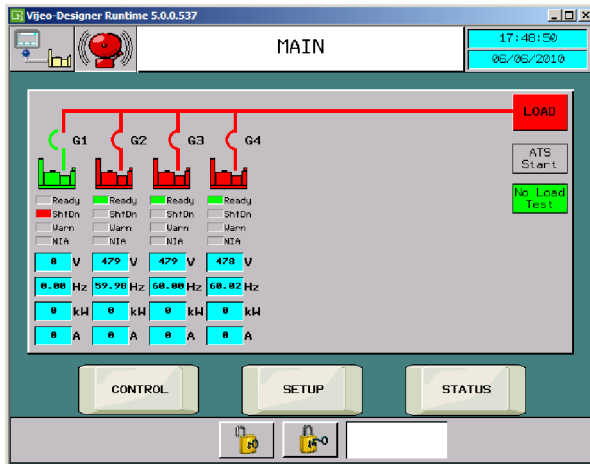
- UL508 listed
- Wall-mounted NEMA 1 enclosure for indoor installation
- 7.5 inch color human-machine interface (HMI) touchscreen
- IBC Seismic Certification available

The MCP 3000 provides the following:

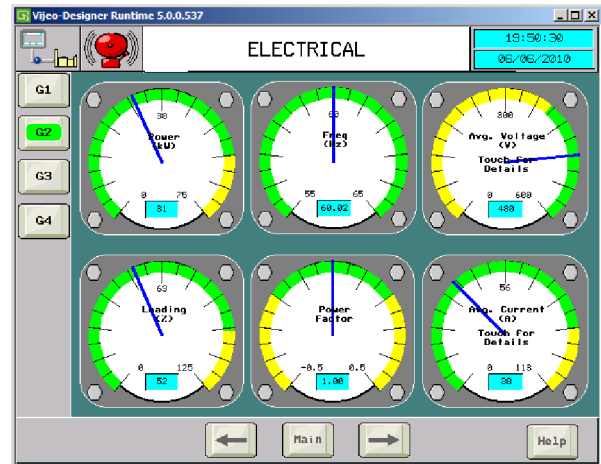
- Generator management
- Load management (load add/shed)
 - Seven load add relays
 - Seven load shed relays
- Graphical system overview
- Basic system monitoring and control
- No-load test
- Individual generator set stop/start
- Electrical metering of the generator sets
- Mechanical metering of the generator sets
- Multiple generator set monitoring
- Alarm and event logging
- Password-protected access
- Field configurable

See Specification Sheet G6-113 for MCP 3000 specifications.

System Overview Screen



Electrical Metering Screen



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