

Auto Synchronizing with other generating sets with prime power or Automatic Mains Failure (AMF) function. When the 6000 series panel is configured as a 6200 control system, it can control up to 8 generating sets operating in parallel on a common bus. The controllers communicate via the RS485 interface and automatically share the active (kW) and reactive (kVAr) load components proportionally. Automatic load sequencing is also performed even if the sets are of different sizes. The load is shared between the generating sets in proportion to their output capability.

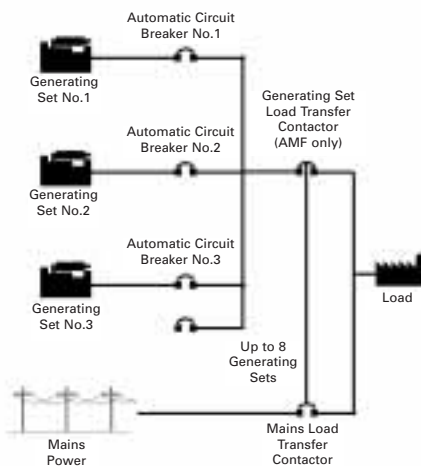
In prime power mode the operator selects AUTO on all sets. They start if required and sequence in and out as required by the available load.

When operating in Automatic Mains Failure mode the controller waits for a remote start signal to indicate that the mains have failed. After a time delay the generating sets are started and when the first set closes its' circuit breaker the Generator Load Transfer Contactor closes. The remaining sets synchronize and close their circuit breakers as required. After mains power returns the generating set circuit breakers open and the sets stop after a cool down period. The Mains and Generator Load Transfer Contactors should be electrically and mechanically interlocked to prevent simultaneous operation.

The optional facility of the industry standard Modbus protocol communication interface ensures compatibility with most building management or SCADA/HMI systems.



## 6200 Series



## Control panel



## Standard features

### ▶ Generating set parameter displays (2 X 4 line LCD display)

AC voltage phase to phase and phase to neutral  
(on 3 phases)  
AC current (on each of 3 phases)  
Frequency  
CosΦ (power factor) average  
kW - total + per phase  
kVAr - total + per phase  
kWh - total  
% Voltage difference between bus and generator  
Phase shift  
Frequency slip  
Hours run  
Coolant temperature  
Lube oil pressure  
DC voltage

### ▶ Bus parameter displays

AC voltage (on a single phase)  
AC voltage/frequency within limits indicator

### ▶ Operator controls

Off/auto/test/run control switch  
Emergency stop pushbutton (lockdown)  
Membrane keypad with tactile feedback  
AC voltage adjust - manual and automatic  
Engine speed adjust - manual and automatic

### ▶ System controls

3 attempt start counter  
Cool down delay  
Pre-glow delay  
Remote start capability  
Reverse power relay  
Manual synchronizing  
Automatic synchronizing  
Automatic load sharing control  
Automatic loading and unloading ramp controller  
Load sequencing control  
Static battery charger (5amp) 220/240 Volt AC  
Quadrature droop kit

### ▶ Shutdowns and alarms

High lube oil temperature shutdown  
Low coolant temperature shutdown  
High coolant temperature shutdown  
Low oil pressure shutdown  
Overspeed shutdown  
Fail to start shutdown  
Emergency stop operated  
Reverse power shutdown  
Overvoltage shutdown  
Undervoltage shutdown or alarm  
Overfrequency shutdown  
Underfrequency shutdown or alarm  
Fail to synchronise alarm  
Battery undervoltage alarm  
Battery overvoltage alarm  
Alternator loss of excitation alarm  
Spare fault channels, up to 3:  
– Low coolant temperature alarm  
– Earth fault  
– Low fuel level shutdown or alarm  
– Low coolant level shutdown

### ▶ Status indicators

General switch status indicator  
Fault log memory  
Password security  
Interface to remote monitoring package

## Optional features

### ▶ System controls

Volt free contacts for generating set running  
R448 regulator (required)  
Electronic governor (required)  
Droop engine control module  
Volt free contacts for common alarms

### ▶ Shutdowns and alarms

Earth fault shutdown  
High fuel level alarm

