

EMCP 3.2 GENSET CONTROLLER



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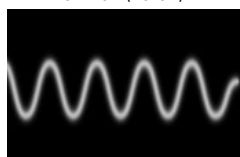
The EMCP 3.2 control panel is a feature packed solution to control, monitor and communicate with your generator set. It includes both manual and automatic start / stop and an engine cool down timer. The 32-bit microprocessor-based system eliminates individual meters, gauges and switches, reduces wiring and results in a highly durable and robust system.

The EMCP 3.2 panel combines generator set control and monitoring in one module for easy access to controls, metering, protection device settings and diagnostic information.

The EMCP 3.2 panel has an accessory data link allowing the connection of annunciator modules and a Modbus data link allowing remote customer monitoring.

FEATURES

- Fully featured power metering, protective relaying and expanded AC metering
- Real-time clock allows for time stamping of diagnostics & events in the control's logs
- Programmable protective relaying, available as alarm and shutdown, protects against undervoltage, overvoltage, underspeed, overspeed, underfrequency, overfrequency
- Expanded remote customer communications are supported by MODBUS protocol using RS-485, which easily interfaces with existing plant systems and equipment
- Digital, 32-bit microprocessor-based system eliminates the need for multiple switches, meters, transducers, relays, and sending units, which translates to less wiring and fewer opportunities for mechanical failures
- Simultaneous viewing of all AC L-L voltages, all AC L-N voltages, or all AC line currents saves time
- User-friendly, convenient, customer programmability directs the customer to logical parameter groups (Ex. AC metering, protective relaying, engine monitoring) for quick keypad access
- Set points & software are stored in nonvolatile memory, preventing loss during a power outage
- True RMS sensing ensures AC metering accuracy of 1% for AC voltage, current, and power parameters
- Five levels of security allow operators to have different access privileges
- Display available in English, French or Spanish, switchable to Technician English for Service



STANDARD FEATURES

EMCP 3.2	
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Panel construction and finish	Components installed in a heavy duty sheet steel enclosure Phosphate chemical pre-coating of steel provides corrosion resistant surface Polyester composite powder topcoat forms high gloss and extremely durable finish
Mounting	Mounted to generating set baseframe on robust steel stand Vibration isolated from generating set
Instrumentation	LCD Display with adjustable contrast and backlight with auto power off AC metering: Volts 3-phase (L-L & L-N); Amps (per phase & average); Frequency; kW (total & per phase); kVA (total & per phase); kVAr (total & per phase); Power Factor (overall & per phase); kW hours; kVAr hours DC metering: Battery Volts; Engine Hours run; Engine Jacket Water Temperature (in °C or °F); Lube Oil Pressure (in psi, kPa or bar); Engine Speed (rpm); Crank attempt counter; Start counter
Protection	Fail to start shutdown Low oil pressure shutdown High engine temperature Approaching high coolant temperature alarm Approaching low oil pressure alarm Not in auto mode alarm Underspeed / Overspeed Loss of Engine Speed Detection Low / High battery voltage Battery charger failure (if fitted) Under volts, Over volts Under frequency, Over frequency Overcurrent 4 spare fault channels 20 Event fault log (name of event, engine hours at first occurrence of event, time stamp at first occurrence, engine hours at latest occurrence of event, time stamp at latest occurrence, number of occurrences of event)
Controls	2 LED status indicators (1 red shutdown, 1 amber warning) Run key and LED indicator Auto key and LED indicator Stop key and LED indicator Lamp test key Alarm acknowledge key Menu navigation keys Engine and AC metering shortcut keys All control module keys have tactile feedback Lock down emergency stop push button
Languages	English, French or Spanish
Other features	Real time clock Service interval counter CAN 2 accessory data link – for additional modules: remote annunciator, discrete input/output module Modbus communications on 2 wire half duplex RS485 connection for remote customer monitoring

OPTIONAL FEATURES

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MCM5 Remote annunciator
MCM2 Close remote monitoring and control, MCM3 Distance remote monitoring and control via telephone line
Battery chargers: PBC5L 120V AC, PBC3UL UL 3A 120V AC, PBC10UL UL 10A 120V AC, PBC5 240V AC, PSB3 240V AC + Boost, PSB3L 110V AC + boost, PMBCUL5 UL 5A 120V AC
WHL Engine coolant heater controls
PAC1 Volt free contacts for common alarm
PGR1 Volt free contact for genset running
PAA1 Audible alarm
PSB5 Lockdown emergency stop button with security key
PSV1 Volts adjust potentiometer
PSS1 Speed adjust potentiometer
Spare shutdown/alarm channel can include FSS2 Low fuel level alarm, PFS2 Panel circuit for low fuel level alarm, FSS1 Low fuel level shutdown, PFS1 Panel circuitry for low fuel level shutdown, FSS5 High fuel level, PFS5 Panel circuitry for high fuel level alarm, LGA1 Low gas pressure alarm, LUBS1 High lube oil temperature shutdown, WCA1 Low coolant temperature alarm, WSS1 Low coolant level shutdown

Note: All options are not available on all genset models.

NFPA 110 requirements include:
PFS2/FSS2 Low fuel level alarm
WSS1 Low coolant level shutdown
WCA1 Low coolant temperature alarm
PSV1 Volts adjust potentiometer
PAA1 Panel mounted audible alarm
A battery charger and battery charger ammeter, an engine heater or battery heater may be required depending on the application