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# ENCP™ X AUTO START GENERATOR PARALLELING SWITCHGEAR

## DESCRIPTION

The ENCP™ X is an easy to use Auto Start Generator Paralleling System suitable for use in a multi-generator synchronizing and load sharing application, designed to synchronize up to 20 generators including electronic and non-electronic engines.

The ENCP™ X Features a 10-inch color touch screen display, with comprehensive large screen graphs, charts, metering, trend analysis, power display and engine status information in a clear image and text format.

User selectable display 'widgets' allow customization of the lower part of the 10-inch screen.

The ENCP™ X Monitors the generators and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.

System alarms are annunciated on the LCD screen (multiple language options available), illuminated LED and audible sounder.

The event log will record 250 events for each genset in the system to facilitate easy maintenance. An extensive number of fixed and flexible monitoring, metering and protection features are included as well as comprehensive communication and system expansion options.

With all communication ports capable of being active at the same time, the ENCP™ X is ideal for a wide variety of demanding load share applications.

## CONTROLLER SPECIFICATIONS

### KEY FEATURES

- Multiple gensets (max 20) within the same load sharing system can be viewed on the 10-inch front screen.
- Touch-screen enabled.
- RS232, RS485 and Ethernet communications.
- Audible alarm.
- Protected front panel configuration.
- Configurable display options
- Remote system monitoring
- Trend Analysis
- Configurable graphical user interface with software 'widgets'
- Comprehensive synchronizing & load sharing capabilities
- Built-in Governor and AVR control
- Base load (kW export) functionality
- Mains (utility) de-coupling protection
- Generator power (kW, kVAr, kVA & pf) monitoring
- Overload (kW & kVAr) protection
- Reverse power (kW & kVAr) protection
- Unbalanced load protection
- Independent earth fault protection
- Advanced integral PLC editor
- 11 Configurable inputs for each genset
- 8 Configurable outputs for each genset
- Configurable flexible sensor inputs
- User configurable RS232, RS485 and Ethernet communications
- Remote SCADA monitoring via various software applications
- MODBUS RTU & TCP support
- User configurable MODBUS pages
- Advanced SMS control and fault messaging (additional GSM modem required)
- Easy access diagnostic pages including modem diagnostic pages
- Data logging and trending
- CAN, MPU and Frequency speed sensing
- Tier 4 CAN engine support
- Protections disabled feature
- Front panel editing with PIN protection
- LED and LCD alarm indication
- Configurable display languages
- USB connectivity
- Customizable status screens
- Five key menu navigation
- 3 Configurable maintenance alarms
- Multiple date and time run scheduler
- Manual fuel pump control
- Fuel usage monitor and low fuel level protection
- Charge alternator failure protection
- Load switching (load shedding and dummy load control)
- (250) Configurable event log for each genset
- Backed up real time clock

### KEY LOAD SHARING FEATURES

- Peak lopping/sharing (when used with ENCP™ 9.3 Controller).
- Sequential set start
- Manual voltage/frequency adjustment
- R.O.C.O.F. and vector shift protection
- Generator load demand
- Automatic hours run balancing
- Mains (Utility) de-coupling
- Mains (Utility) de-coupling test mode
- Dead bus sensing
- Bus failure detection
- Direct governor and AVR control
- Volts and frequency matching
- kW and kVAr load sharing
- Dead bus synchronizing

### KEY BENEFITS

- Compatible with ENCP™ 9 Series Paralleling Controllers
- Data communication link allows remote system management.
- 800 x 480 pixels for high screen resolution.
- Compatible in old load share systems. Contact our Technical Department for further details.
- Real-time clock provides accurate event logging
- Ethernet communication, provides built in advanced remote monitoring.
- Can be integrated into building management systems (BMS) and programmable logic control (PLC).
- Increased input and output expansion capability via extra optional expansion modules.
- License-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- Advanced Internal PLC editor allows user configurable functions to meet specific application requirements.
- Some digital inputs, analogue inputs and Digital outputs might be used for the operator interface, Consult our Technical Support Team for the Exact Number of Free Inputs and Outputs.

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Materials and specification characteristics may change without notice.

Dimensions and weights are for preliminary purposes only. Please consult ELECTRONIL™ Technical Support Team for detailed installation drawings.

All information in this document is substantially correct at time of printing and may be altered subsequently.

