



Power Generators
Soundproofing Solutions
Power Transfer Switches
Paralleling Systems
Switchgears
Controls

Generator Maintenance
Services Agreements
Control System Upgrade
Battery Chargers
Spareparts
Consumables





POWER IS WINNING

WHY **ELECTRONIL** !

We are a group of fearless thinkers, driven to empower people all over the nation – with reliable, revolutionary generators, power systems and power solutions.

We are nearly 30 years in the Egyptian markets, and only getting better. For the last two decades, we have engineered and shaped the future, redefining what power means to people's lives, careers and lifestyles.

We exist for one reason: to move you forward.



WE WHAT WE DO

995

لم تختار منتجات إلكتروني! !

نحن مجموعة من المفكرين لا يخافون الإبتكار، مدفوعون بشغف تمكين عملائنا في جميع أنحاء البلاد - بمحطات توليد طاقة إعتماذية وموثوقة، بالإضافة إلى أنظمة وحلول متكاملة للطاقة.

لدينا ما يقرب من ٣٠ عاماً من الخبرة في الأسواق المصرية، ونعمل في تقدم دائم. على مدار العقدين الزميين الماضيين، قمنا بتصميم وصياغة المستقبل، وإعادة صياغة المعنى الحقيقي للطاقة الكهربائية لحياة عملائنا وأعمالهم وأنماط حياتهم.

نعمل بجهد لسبب واحد: **للحفاظ على تقدمكم.**

WE ARE ELECTRONIL.

Our Capabilities



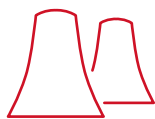
Power Generation Systems
Design and Supply



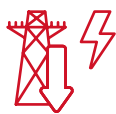
Complex Standby Systems,
Synchronization and Load
Sharing Including Multiple
Utility Grid



Parallel with Utility Grid
Operation



Power Stations



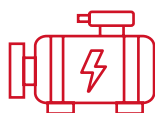
Mains, Feeder and Load
Shedding Control Systems



BMS, SCADA and Remote
Monitoring Systems



Low-Voltage Panel Building



Engine Driven
Compressors and Pumps



Marine Certified Systems



Water Pump and Dredging
Control Systems



Design, Supply, Install,
Commissioning, Startup
and Service



Standard, Sophisticated
and Bespoke Control
Systems



Design



Engineering



Training and Technical
Support





OUR STORY

A Magnificent force in power solutions since 1995, **ELECTRONIL POWER SOLUTIONS** is committed to reliable, intelligent products, advanced engineering and responsive after-sale support.

Over the years, we have amplified our well-known reputation to be a leader known for its premium range of generator-sets and control systems. Together, with building on the legacy of a leading brand, to create one of the largest generator-set and control systems providers in Egypt - and continued an unwavering focus on reliable power systems and innovation.

We deliver integrated industrial power systems for emergency, prime and continuous applications throughout whole Egypt—from data centers and hospitals to water treatment and hospitality facilities. With a deep understanding of your industry, we excel in designing customized power systems that simplify your most complex challenges.

من نحن

تُعد شركة إلكترونيل لحلول الطاقة قوة رائدة في مجالات حلول الطاقة الكهربائية منذ عام ١٩٩٥، ومنذ ذلك الحين ونحن نلتزم بإمداد عملائنا بمنتجات موثوقة وذكية ومتطورة هندسياً بالإضافة إلى دعم سريع الاستجابة لخدمة ما بعد البيع والصيانة.

على مر الأعوام، ضاعفنا من سمعتنا المعروفة لكوننا من أكبر الكيانات الرائدة والمعروفة بمنتجاتها المتميزة من وحدات توليد الطاقة الكهربائية وأنظمة التحكم والحماية والتشغيل. بالإضافة إلى، واستناداً إلى إرث علامة تجارية رائدة، قمنا بإنشاء واحد من أكبر مزودي الأسواق المصرية بأنظمة الطاقة المتكاملة وأنظمة تحكم وتشغيل وحماية إعتماضية وموثوقة على مستوى جمهورية مصر العربية - واستمر التركيز المستمر على إبتكار أنظمة طاقة متكاملة وموثوقة ومتطورة.

نقوم بتقديم أنظمة توليد طاقة صناعية متكاملة لتطبيقات الطوارئ والمحطات الرئيسية والطاقة المستمرة في جميع أنحاء جمهورية مصر العربية - من مراكز المعلومات والمستشفيات إلى محطات معالجة مياه الشرب والصرف الصحي والفنادق. بدراسة وفهم عميق لمجال عملك، نتميز في تصميم أنظمة طاقة متكاملة ومتخصصة والتي تعمل على تبسيط التحديات الأكثر تعقيداً التي يمكن أن تقابلك.

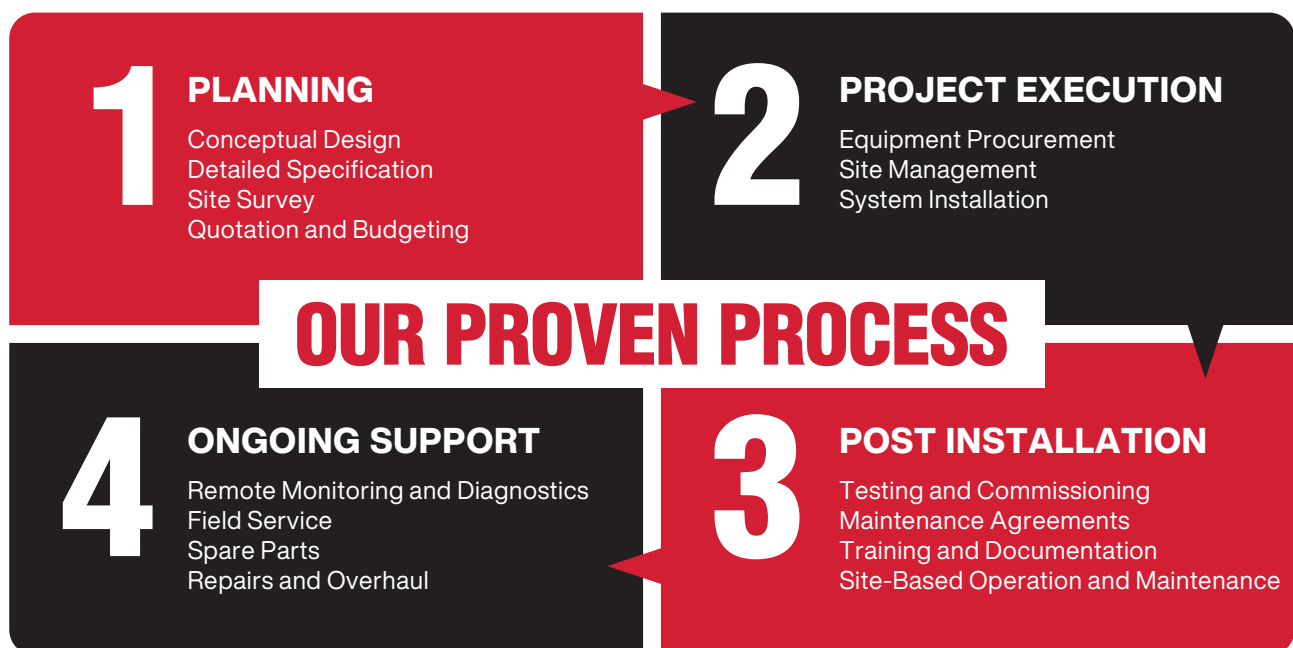
TOTAL SYSTEM INTEGRATION

**Everything works together,
Just as it should.**

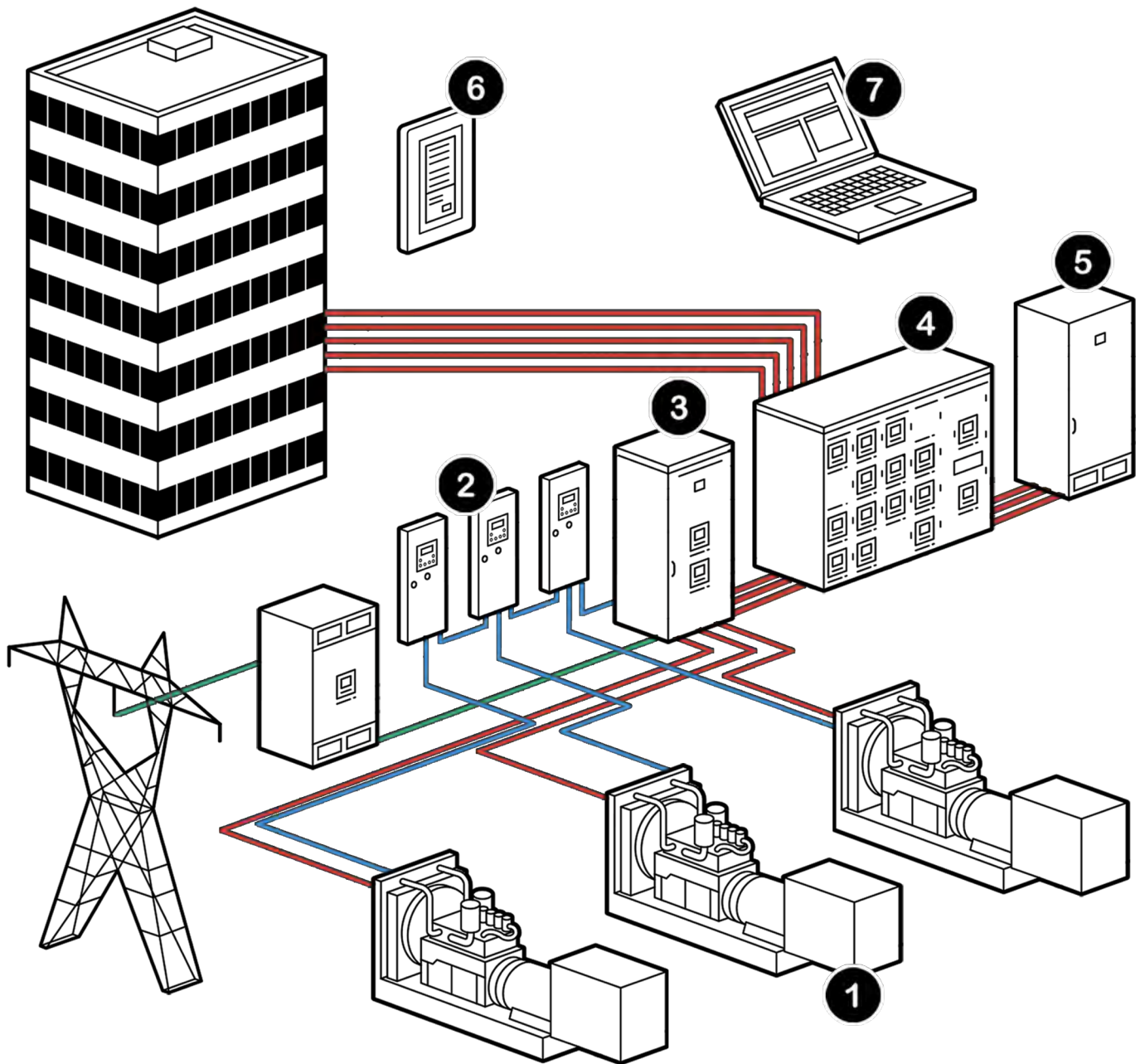
A Power System is only as good as the parts that define it. That's why we engineer every detail down to the last bolt. From generators and power transfer switches to paralleling systems and switchgear and controllers, everything works together seamlessly. Because we design, engineer and test it that way.

And that's the **ELECTRONIL** Difference.

Good news: There is more, behind that power system, there is a team of dedicated engineers that focuses on every element-generators, power transfer switches, switchgears and control systems — to be sure that the system you get is the system you need. You will know that your project is supported by an expert team, customized to your exact needs, brought in on budget and on time.



From spec to start-up to service, WE DO IT ALL.



TOTAL SYSTEM INTEGRATION

- 1 ED SERIES DIESEL GENERATORS**
 Powered by Perkins, Volvo-Penta, or Cummins Diesel Engines, 9 - 3000 kVA
- 2 ENCP 9.1 GENSETS PARALLELING SYSTEM**
 2-32 Generator set paralleling system with automatic power management and automatic engine run-hour balancing.
- 3 ENCP 9.3/ENCP 6.x TRANSFER SWITCH**
 40-4000 A Power transfer switches, available in standard, bypass-isolation and service entrance switch configurations.
- 4 ELECTRONIL POWER DISTRIBUTION PANEL**
 MCB, MCCB and ACB, Up to 6000 Amps.
- 5 ELECTRONIL POWER FACTOR CORRECTION SYSTEMS**
 Up to 15 steps.
- 6 REMOTE ANNUNCIATOR**
 Optional remote system monitoring.
- 7 THE SUPERVISOR MONITORING SOFTWARE**
 Monitors generators and control systems from a PC and Smart Phones (Optional) Modbus or Ethernet.

ELECTRONIL CONTROL PANELS.

The Smart Choice in Backup Power Systems.

Control Systems are the brains of a power system. They continuously monitor and manage operating conditions to ensure the reliability, flexibility and performance of the equipment as well as protect it from damage. We design and manufacture every detail of all ENCP Series Control Systems to ensure dependability, ease-of-use, safety and seamless integration with the rest of our equipment.

Our power equipment is used in a wide variety of applications, each of which places unique demands and challenges on its power systems, so we design our controllers to be extremely versatile and customizable.

Each one features programmable I/O modules to support customization and is designed to communicate and interoperate with these advanced building management systems (BMS).

ENCP SERIES CONTROL SYSTEMS

Available to support either single generator or parallel operation, our ENCP Control Systems are easy to operate and provide dependable engine and alternator control, operating information and system diagnostics.

GENSET CONTROLS

- ENCP 3 Series** | Single manual and remote start genset control systems.
- ENCP 7 Series** | Single genset automatic mains failure control systems.
- ENCP 9 Series** | Single/multiple synchronizing and load sharing genset control systems.

POWER TRANSFER SWITCH CONTROLS

- ENCP 6 Series** | Automatic transfer switch control systems to communicate with the genset controllers to bridge the gap from utility to standby power, and back again, ensuring a smooth, seamless transition and minimal disruption.

GENERATORS PARALLELING SWITCHGEARS

- ENCP iX** | 2-3 Genset synchronizing and load sharing switchgear control systems.
- ENCP X** | 2-20 Genset synchronizing and load sharing switchgear control systems.

PARALLELING SWITCHGEAR CONTROLS

Each ELECTRONIL Paralleling Switchgear Solution is developed to meet your specific needs, and the control systems are programmed to your exact specifications. ELECTRONIL Deploys fault-tolerant programming and provides an intuitive user interface with real-time system information to enable better operational decisions.

ENCP 9.1

POWER SOLUTIONS

GENSET 1

ON DUTY SELECTED

ENGINE FAIL TO START

LOW ENGINE OIL PRESSURE

HIGH ENGINE TEMPERATURE



**ALARM
WARNING
SHUTDOWN**



**SYSTEM
NOT IN AUTO**



**REMOTE START
INITIATED**



**REVERSE
POWER ALARM**



**GENSET
OVERLOADED**

LOCK

REMOVE
KEY

UNLOCK



**ALARM
RESET**



SOLUTIONS

ENCPC GENSET

AUTO START GENERATOR CONTROLLERS.

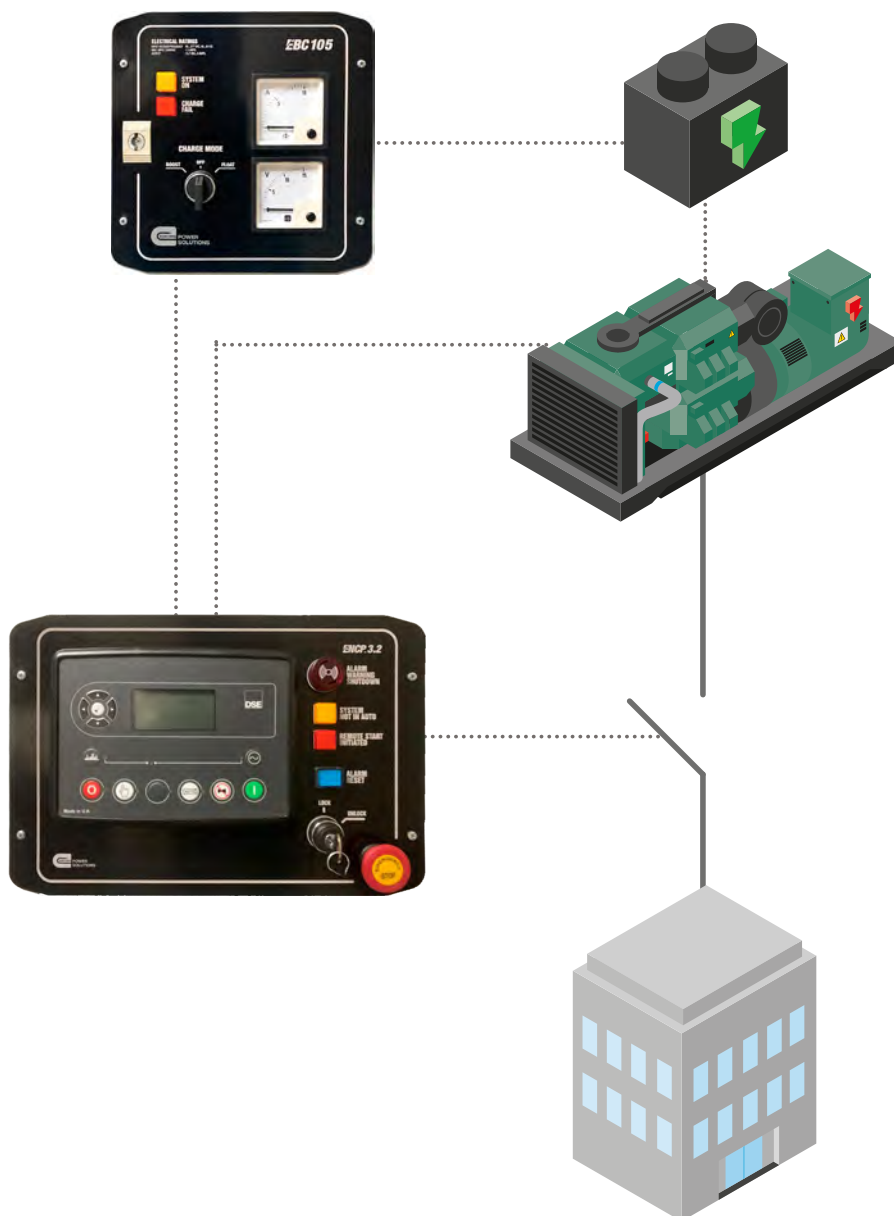
The ENCP 3 Series combines engine and generator control and monitoring with a single, robust panel for quick key access to engine and generator controls, diagnostics, and operating information.

Monitoring engine speed, oil pressure, coolant temperature, frequency, voltage, current, power and fuel level, the systems give comprehensive engine and alternator protection. This is indicated on a large backlit LCD text display via an array of warning, electrical trip and shutdown alarms in multiple languages.

Electronic J1939 (CAN) and non electronic MPU and alternator sensing engine support for diesel, gas and petrol engines all in one variant. With a number of flexible inputs, outputs and protections, the systems can be easily adapted to suit a wide range of applications.

The ENCP 3 Series features a graphical display with an adjustable back-light as well as an advanced engine monitoring system. These features add to the sense of value and dependability that comes with your purchase of ELECTRONIL Products.

Full list of features available at electronil.com/encp_genset

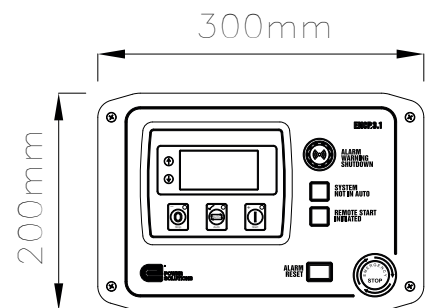


ENCP 3.1

AUTO START GENERATOR CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 300x200mm

PRODUCT HIGHLIGHTS

- Independent fuel and crank outputs.
- CAN engine support (Tier 4F / Stage 5).
- Conventional engine support (Hz).
- Front panel (PIN protected).
- 3-phase generator sensing.
- Sophisticated alarms including water in fuel and tank bund.
- 0-10 V & 4-20 mA oil pressure sensor support.
- ECU periodic wake up for information retrieval.
- Comprehensive engine and alternator protections.
- Generator / load power & current monitoring and protection.

ADVANCED FEATURES

INPUTS/OUTPUTS

- (4) Configurable inputs.
- (3) Configurable analog/digital inputs.
- (4) Configurable DC outputs.

COMMUNICATIONS

- USB for PC configuration

ENGINE COMPATIBILITY

- Conventional engine support (Hz)
- CAN engine support (Tier 4F / Stage 5)

CONFIGURATION

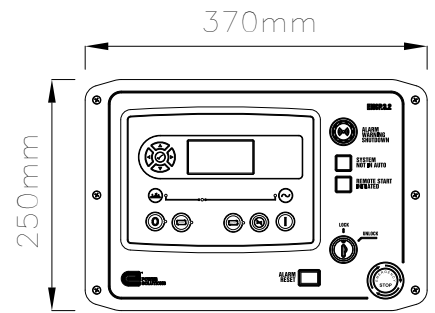
- Configuration Suite PC software
- Front panel (PIN protected)

ENCP 3.2

AUTO START GENERATOR CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 370x250mm

PRODUCT HIGHLIGHTS

- Independent fuel and crank outputs.
- CAN engine support (Tier 4F / Stage 5).
- Conventional engine support (MPU & Hz).
- Front panel (PIN protected).
- PLC editor.
- Generator current & power monitoring.
- 0-10 V & 4-20 mA oil pressure sensor support.
- Fuel level alarms.
- 1 alternative configuration.
- 3-phase generator sensing & protection.
- 5-key menu navigation / front panel breaker control buttons.
- Text based display.

ADVANCED FEATURES

INPUTS/OUTPUTS

- (4) Configurable inputs.
- (3) Configurable analog/digital inputs.
- (4) Configurable DC outputs.

COMMUNICATIONS

- USB for PC configuration

ENGINE COMPATIBILITY

- Conventional engine support (Hz)
- CAN engine support (Tier 4F / Stage 5)

CONFIGURATION

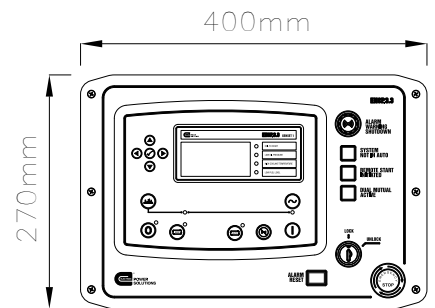
- Configuration Suite PC software
- Front panel (PIN protected)

ENCP 3.3

AUTO START GENERATOR CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 400x270mm

PRODUCT HIGHLIGHTS

- Independent fuel and start outputs.
- Simultaneous use of RS485 & RS232 ports.
- MODBUS RTU.
- SCADA software.
- Conventional engine support (MPU & Hz).
- CAN engine support (Tier 4F / Stage 5).
- Configurable front panel (PIN protected).
- Supports 7 languages.
- Advanced protections.
- Oil pressure disconnect delay.
- Configurable icon screens.
- Charge alternator disable functionality.
- Dedicated inputs for ECU specific operations.
- Advanced PLC editor.
- SMS alerts & control.
- Dual mutual standby.

ADVANCED FEATURES

INPUTS/OUTPUTS

- (8) Configurable inputs.
- (6) Configurable analog/digital inputs.
- (6) Configurable DC outputs.
- (2) Configurable Volt-free outputs.

COMMUNICATIONS

- Simultaneous use of RS485 & RS232
- MODBUS RTU
- USB for PC configuration
- SCADA software

ENGINE COMPATIBILITY

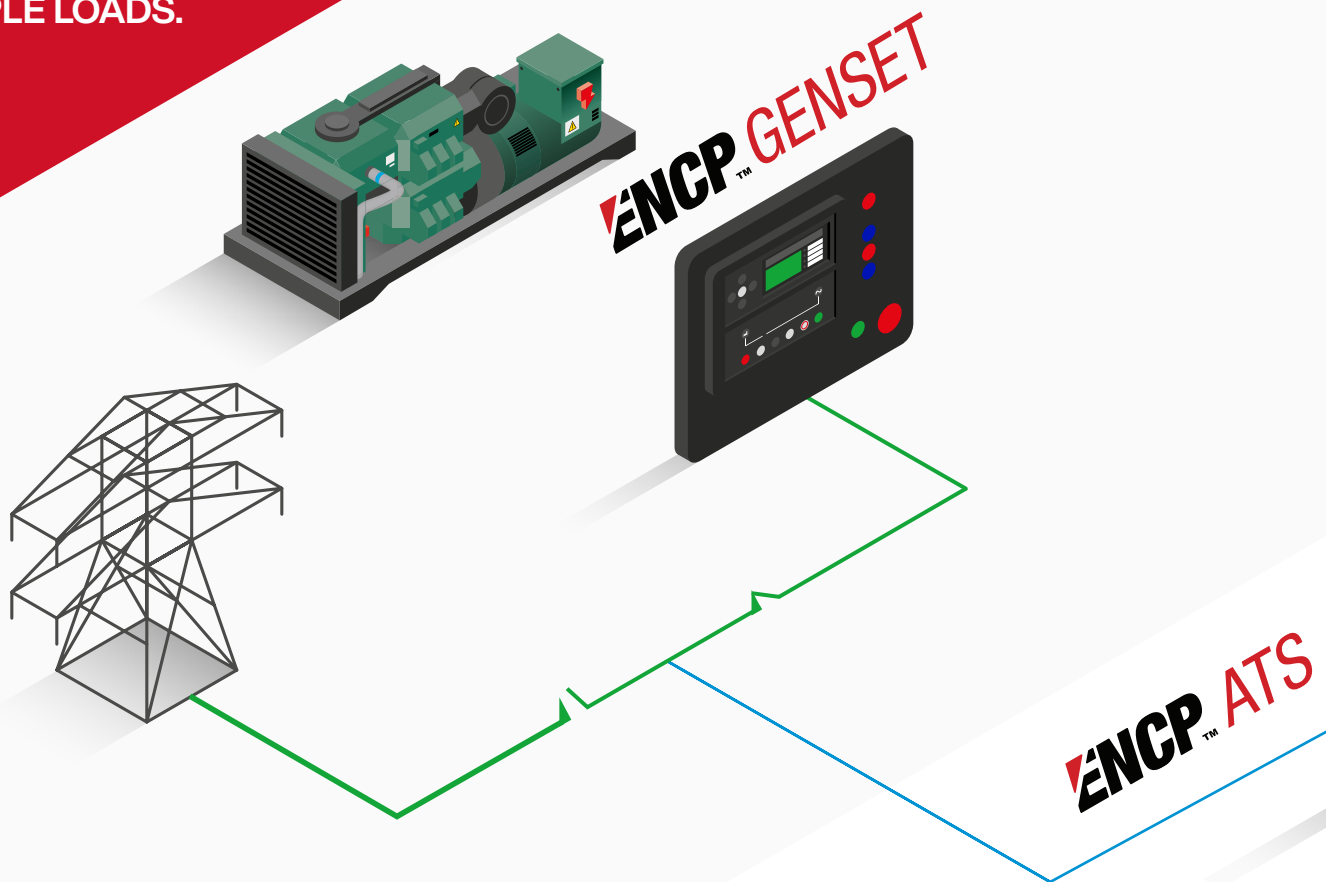
- Conventional engine support (Hz)
- CAN engine support (Tier 4F / Stage 5)

CONFIGURATION

- Configuration Suite PC software
- Front panel (PIN protected)

COMPLETE POWER MANAGEMENT SOLUTIONS.

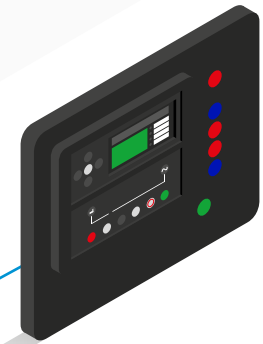
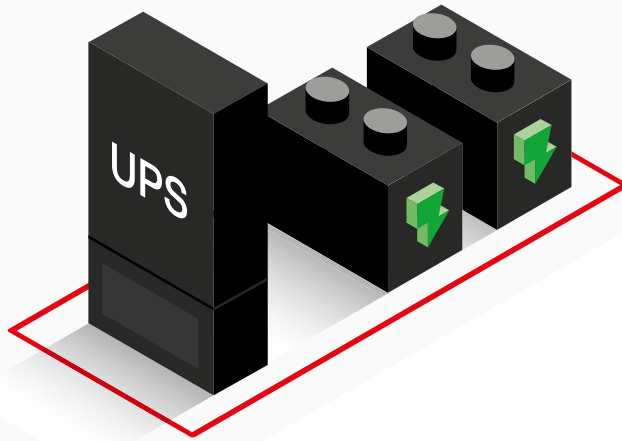
MULTIPLE APPLICATIONS,
MULTIPLE SOURCES,
MULTIPLE LOADS.



ENC P 3 Series

AUTO START GENERATOR CONTROLS.

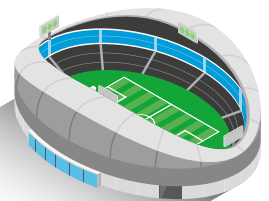
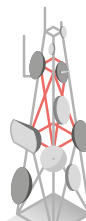
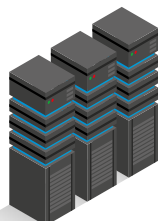
Sophisticated genset controllers for single and multi-set systems.



ENCP 6 Series

POWER TRANSFER SWITCH CONTROLS.

Dedicated auto power transfer switch controllers for demanding applications.



ENCP ATS

POWER TRANSFER SWITCH CONTROLLERS.

The ENCP 6 Series Power Transfer Switch Control Systems are designed for a variety of standby power applications. They provide flexibility, reliability and value in a compact package.

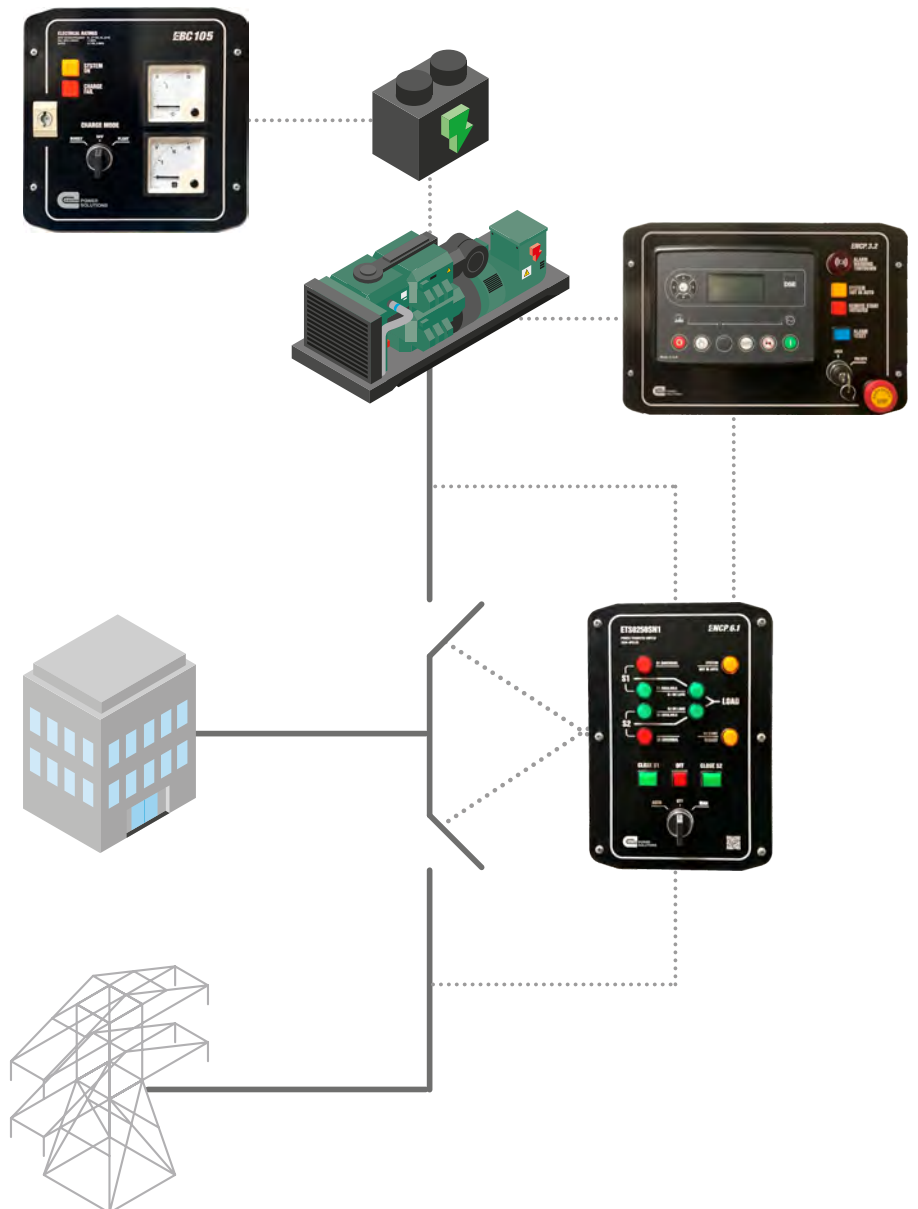
The ETS Open Transition Power Transfer Switches will provide fully functioning transfer in applications where a momentary loss of power is acceptable on re-transfer from emergency to normal power supply. The ENCP 6 Series Power Transfer Switch Control Systems also permits periodic testing of the emergency source without interrupting power to the loads.

The ETS Closed Transition Power Transfer Switches are designed to Meet application requirements where emergency backup power is required with no momentary loss of power by connecting/short time paralleling both sources before the transfer occurs. Closed transition also permits periodic testing of the emergency power source without interrupting power to the loads.

The ETS Service Entrance Power Transfer Switches are designed to provide standby power emergency power to entire installation loads to protect against utility power interruption; yet allow the ATS to be as close as possible to the point of service entrance.

By safely and in code compliance, integrating the necessary overcurrent protection and service disconnecting means into the power transfer switch, a single installation can be made at the service entrance. This design eliminates the need for a separate upstream fault protection and respective interconnections, which in turn reduces installation space, time, and cost.

Our Circuit Breaker based ETS Service Entrance Power Transfer Switches are available from 40A to 4000A.

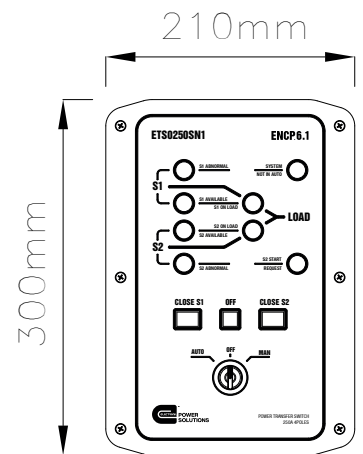


ENC6.1

POWER TRANSFER SWITCH CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 300x210mm

PRODUCT HIGHLIGHTS

FEATURES

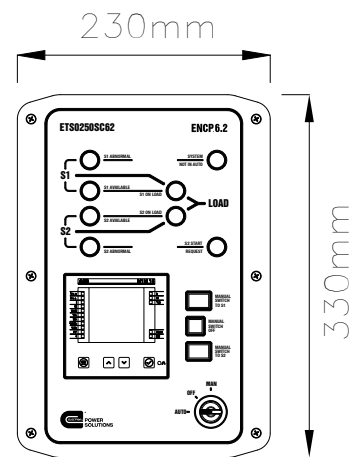
- Automatic switch-over between supplies.
- Source 1 / Source 2 control.
- LED Indicators.
- Not in Auto warning LED.
- S2 Start Request Indication LED.
- Self powered.
- Manual restore to S1.
- Configurable timers.
- Manual & automatic return.
- Rotary ATS configuration.

ENCP 6.2

POWER TRANSFER SWITCH CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 330x220mm

PRODUCT HIGHLIGHTS

FEATURES

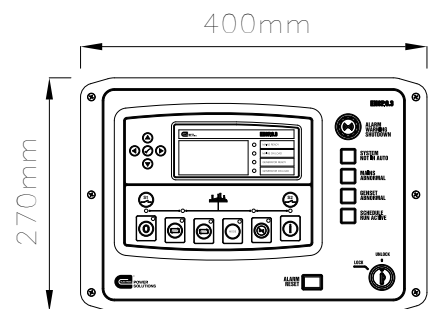
- Automatic switch-over between supplies.
- Source 1 / Source 2 control.
- LED Indicators.
- Not in Auto warning LED.
- S2 Start Request Indication LED.
- Self powered.
- Manual restore to S1.
- Configurable timers.
- Manual & automatic return.
- Rotary ATS configuration.
- True RMS Voltage and Current measurements.
- Frequency and On-Hours measurements.

ENCP 6.3

POWER TRANSFER SWITCH CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 400x270mm

PRODUCT HIGHLIGHTS

- Configurable for RS232 or RS485.
- 3-phase monitoring of S1 and S2.
- Source 1 / source 2 control.
- Manual restore to S1.
- Load switching (load shedding outputs).
- Check sync feature.
- Power monitoring (kWh, kVAr, kVAh, kVArh).
- Start and load inhibit.
- Manual and automatic return.
- Supports multiple topologies.
- Rotary ATS configuration.
- Configurable timers and alarms.
- Multiple date and time scheduler.
- PLC editor.
- Real-time clock.
- SMS messaging.
- Configurable GenComm pages.

Full list of features available at
electronil.com/encp_6.3

ADVANCED FEATURES

INPUTS/OUTPUTS

- (12) Configurable inputs.
- (6) Configurable Volt-free outputs.
- (6) Configurable DC outputs.

COMMUNICATIONS

- Configurable for RS232 or RS485
- USB for PC configuration

CONFIGURATION

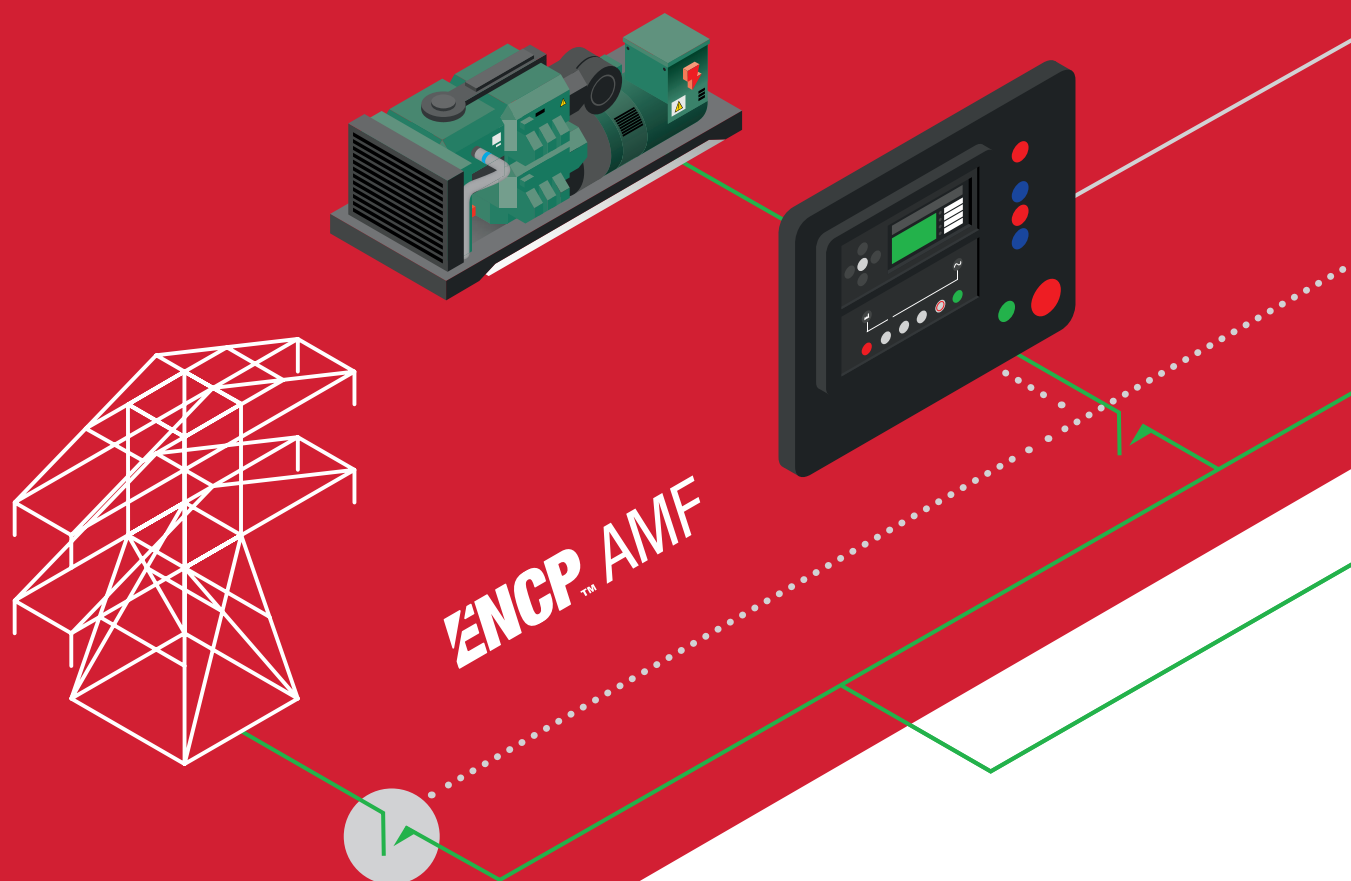
- Configuration Suite PC software
- Front panel (PIN protected)

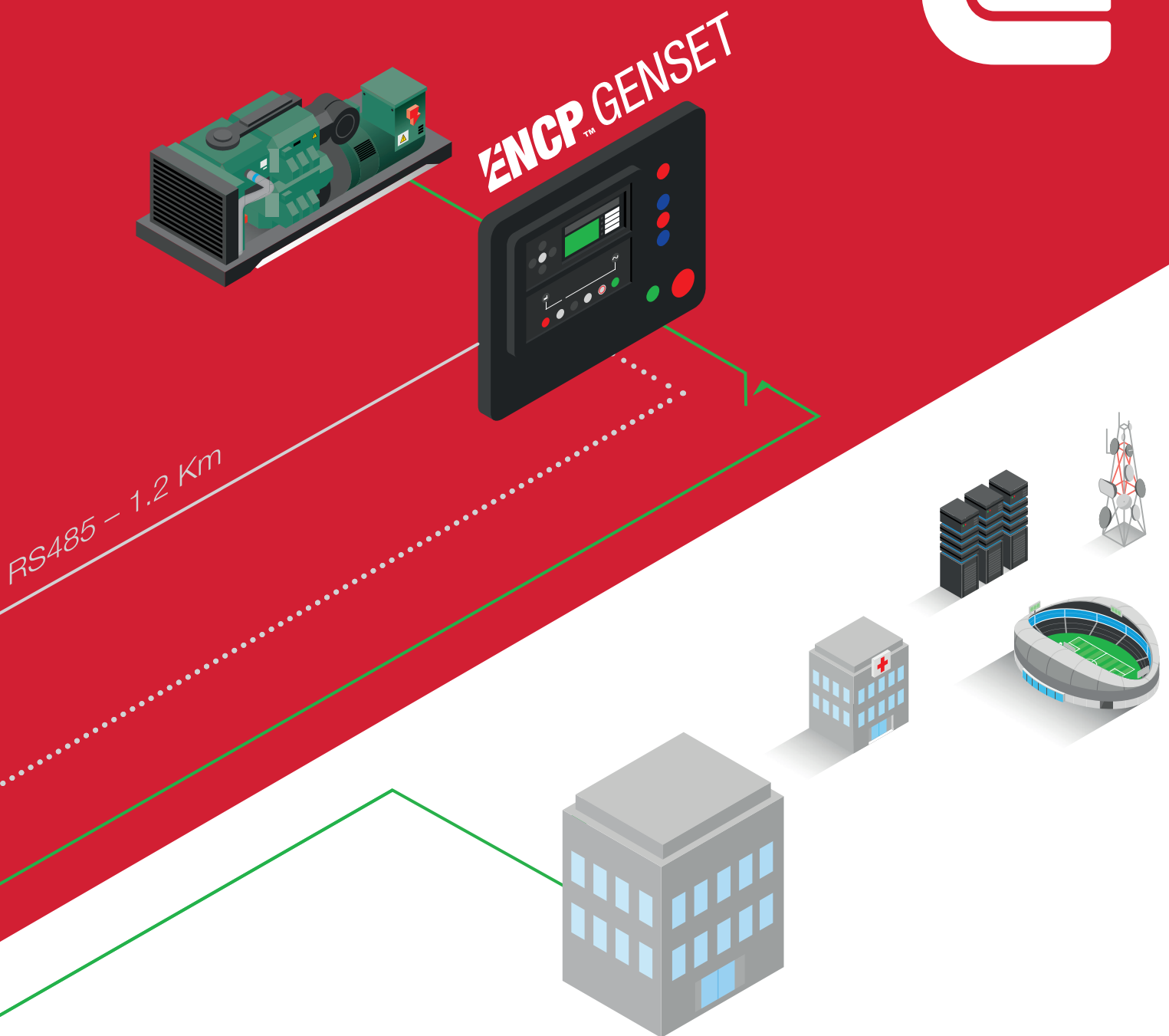
THREE-SOURCE SYSTEM.

Backup to Your Backup (DUAL-MUTUAL STANDBY).

A three-source system offers redundancy without the complexity or cost of a paralleling system. Available with a microprocessor-based controller, the system is based on two generators, two controllers and a two out of three power transfer switches.

Balancing engine run hours and instructing a second back-up generator to safeguard against the loss of power is essential for power critical applications. The Integrated dual mutual standby functionality simplifies the process of balancing engine run hours, whilst maintaining a back-up if the running generator fails. Connected via RS232 or RS485 the ENCP 3.3/ENCP 7.3 Control Systems Automatically run the correct generator, ensuring equal run times are maintained and engine downtime is reduced.





THE BENEFITS ARE MANY

- One generator is available when the other is being serviced.
- You have automatic backup power from the second generator; many critical power applications require this.
- By alternating generator runtime and extending the time it takes to accumulate engine hours, you extend time between maintenance and overhauls.
- You lengthen the time between refueling, because you have two fuel sources one for each generator.
- You have peace of mind knowing that if one generator fails, the other is automatic ***_ IT'S BACKUP TO YOUR BACKUP.***

ENCN AMF

AUTO MAINS FAILURE GENSET CONTROLLERS.

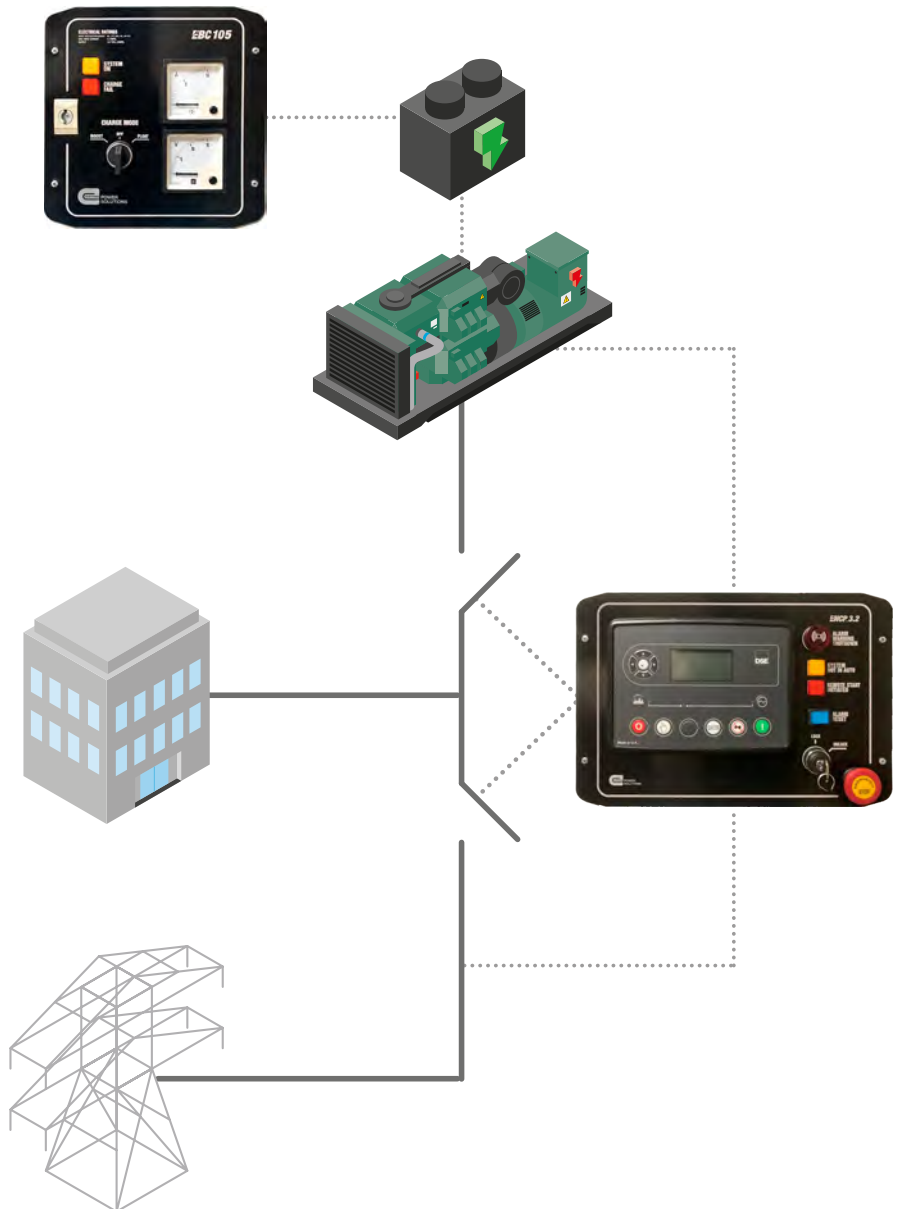
The ENCP 7 Series combines engine and generator control and monitoring with a single, robust panel for quick key access to engine and generator controls, diagnostics, and operating information.

Monitoring engine speed, oil pressure, coolant temperature, generator/mains frequency, generator/mains voltage, load current, power and engine fuel level, the systems give comprehensive engine and alternator protection. This is indicated on a large back-lit LCD text display via an array of warning, electrical trip and shutdown alarms in multiple languages.

Electronic J1939 (CAN) and non electronic MPU and alternator sensing engine support for diesel, gas and petrol engines all in one variant. With a number of flexible inputs, outputs and protections, the systems can be easily adapted to suit a wide range of applications.

The ENCP 7 Series features a graphical display with an adjustable backlight as well as an advanced engine monitoring system. These features add to the sense of value and dependability that comes with your purchase of ELECTRONIL Products.

Full list of features available at electronil.com/encp_amf

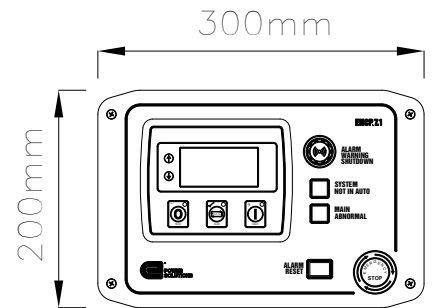


ENCP 7.1

AUTO MAINS FAILURE GENSET CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 300x200mm

PRODUCT HIGHLIGHTS

- Independent fuel and crank outputs.
- CAN engine support (Tier 4F / Stage 5).
- Conventional engine support (Hz).
- 3-phase mains (utility) sensing.
- Automatic transfer between mains & generator.
- Sophisticated alarms including water in fuel & tank bund.
- ECU periodic wake up for information retrieval.
- Comprehensive engine and alternator protections.
- Alternator frequency & CAN speed sensing.
- Generator / load power & current monitoring and protection.

ADVANCED FEATURES

INPUTS/OUTPUTS

- (4) Configurable inputs.
- (3) Configurable analog/digital inputs.
- (4) Configurable DC outputs.

COMMUNICATIONS

- USB for PC configuration

ENGINE COMPATIBILITY

- Conventional engine support (Hz)
- CAN engine support (Tier 4F / Stage 5)

CONFIGURATION

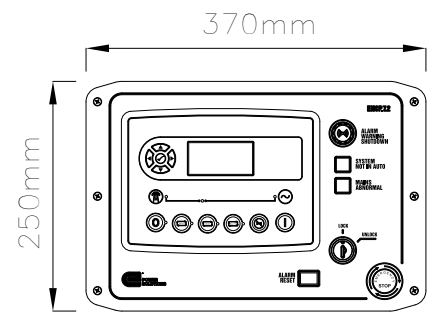
- Configuration Suite PC software
- Front panel (PIN protected)

ENC P 7.2

AUTO MAINS FAILURE GENSET CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 370x250mm

PRODUCT HIGHLIGHTS

- Independent fuel and crank outputs.
- CAN engine support (Tier 4F / Stage 5).
- Conventional engine support (MPU & Hz).
- Mains (utility) supply monitoring.
- Automatic transfer between mains & generator.
- PLC editor.
- Generator/mains current & power monitoring.
- 0-10 V & 4-20 mA oil pressure sensor support.
- Fuel level alarms.
- 1 alternative configuration.
- 3-phase generator sensing & protection.
- 5-key menu navigation / front panel breaker control buttons.

ADVANCED FEATURES

INPUTS/OUTPUTS

- (8) Configurable inputs.
- (4) Configurable analog/digital inputs.
- (6) Configurable DC outputs.

COMMUNICATIONS

- USB for PC configuration

ENGINE COMPATIBILITY

- Conventional engine support (Hz)
- CAN engine support (Tier 4F / Stage 5)

CONFIGURATION

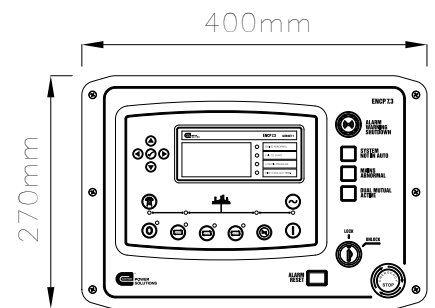
- Configuration Suite PC software
- Front panel (PIN protected)

ENCP 7.3

AUTO MAINS FAILURE GENSET CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 400x270mm

PRODUCT HIGHLIGHTS

- Independent fuel and start outputs.
- Simultaneous use of RS485 & RS232 ports.
- MODBUS RTU.
- SCADA software.
- Conventional engine support (MPU & Hz).
- CAN engine support (Tier 4F / Stage 5).
- Mains (utility) supply monitoring.
- Automatic transfer between mains & generator.
- Supports 7 languages.
- Crank disconnect on generator voltage.
- Oil pressure disconnect delay.
- Configurable icon screens.
- Charge alternator disable functionality.
- Dedicated inputs for ECU specific operations.
- Advanced PLC editor.
- SMS alerts & control.
- Dual mutual standby.

ADVANCED FEATURES

INPUTS/OUTPUTS

- (8) Configurable inputs.
- (6) Configurable analog/digital inputs.
- (6) Configurable DC outputs.
- (2) Configurable Volt-free outputs.

COMMUNICATIONS

- Simultaneous use of RS485 & RS23
- MODBUS RTU
- USB for PC configuration
- SCADA software

ENGINE COMPATIBILITY

- Conventional engine support (Hz)
- CAN engine support (Tier 4F / Stage 5)

CONFIGURATION

- Configuration Suite PC software
- Front panel (PIN protected)

ELECTRONIL PARALLELED POWER SYSTEMS

TOTAL INTEGRATION,
From Top To Bottom.

When it comes to paralleling systems, we offer 100% integration.

Our **ELECTRONIL PARALLELED POWER SYSTEMS** Designed, Engineered and Factory-Tested as a complete system, rather than built from parts from multiple manufacturers like some competitive products.

Comprised of our **ED SERIES GENERATORS, ENCP 9 SERIES PARALLELING SYSTEMS** and **SWITCHGEARS**, and **EBC SERIES BATTERY CHARGERS**. The **ELECTRONIL PARALLELED POWER SYSTEMS** delivers dependable power across multiple applications. Combine that with our extensive network of sales and service technicians, and you've got what everyone wants:

peace of mind.

Discover more at
electronil.com/paralleled_power_systems



ENCP 8.1 GENSET 2

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ELECTRONIL INTEGRATED POWER SOLUTIONS
TECH. SUPPORT: (+201) 2 24 000 163
E-MAIL: electronil@eipss.com
www.electronil.com

GENSET MACHINE INTERFACE ENCP X

ELECTRONIL POWER SOLUTIONS

MASTER CONTROLS

ELECTRONIL POWER SOLUTIONS

ENCP 9.1 GENSET 3
PARALLELING SYSTEM

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THE BENEFITS OF PARALLELING GENERATORS

Maximize Your System's Flexibility.

While it may be common for a facility to install a single large generator to meet its power needs, paralleling two or more generators offers a number of practical benefits and advantages over a single-generator system.

REDUNDANCY

The redundancy provided by the paralleling of two or more generators delivers greater reliability and flexibility than a single generator can provide. In critical applications, having more than one generator connected to the bus at all times ensures continuous generator power in the unlikely event that a generator fails.

Discover more at
electronil.com/paralleled_power_systems

EFFICIENCY

Instead of one large generator that might operate at an inefficiently low kW, several small generators can be paralleled together and turned on and off as necessary to efficiently support the varying demands of the load.

In situations where your load needs require one genset, you'll run more efficiently. And that kind of efficiency can result in big savings. Because our **ENCP 9 Series** control systems automatically turns off any generators in your system when needs are low, you'll benefit from immediate fuel savings and reduce running time for greater generator longevity.



ERATORS.

ENCP™ SYNC

COST-EFFECTIVE

In many cases, paralleling two or more gensets to produce the same output as a larger single unit results in significant cost savings.

For example: you can **save up to 20%** when **paralleling three 500 kW units** compared to **one 1500 kW unit**.

SPACE CONSTRAINTS

By using gensets with smaller footprints instead of one larger unit, the Paralleled Generators System provides greater location flexibility. The multiple units can be placed where a single genset won't fit, so space is used more efficiently. And because the weight of multiple units can be distributed, rooftop installation is even possible - something you simply can't do with many large single-generator sets.

POWER REQUIREMENTS

If the largest available generator is too small to meet your power requirements, two or more generators can be paralleled to provide the necessary power.

FUTURE GROWTH

A Paralleled Generators System can be designed to add additional generators as your facility's load requirements expand.

Purchase the Paralleled Generators System that fits your budget today. And, in the future, it can easily expand as your needs and budget allow. That way, you'll never have to worry about replacing a system you've outgrown.

ENCP SYNC

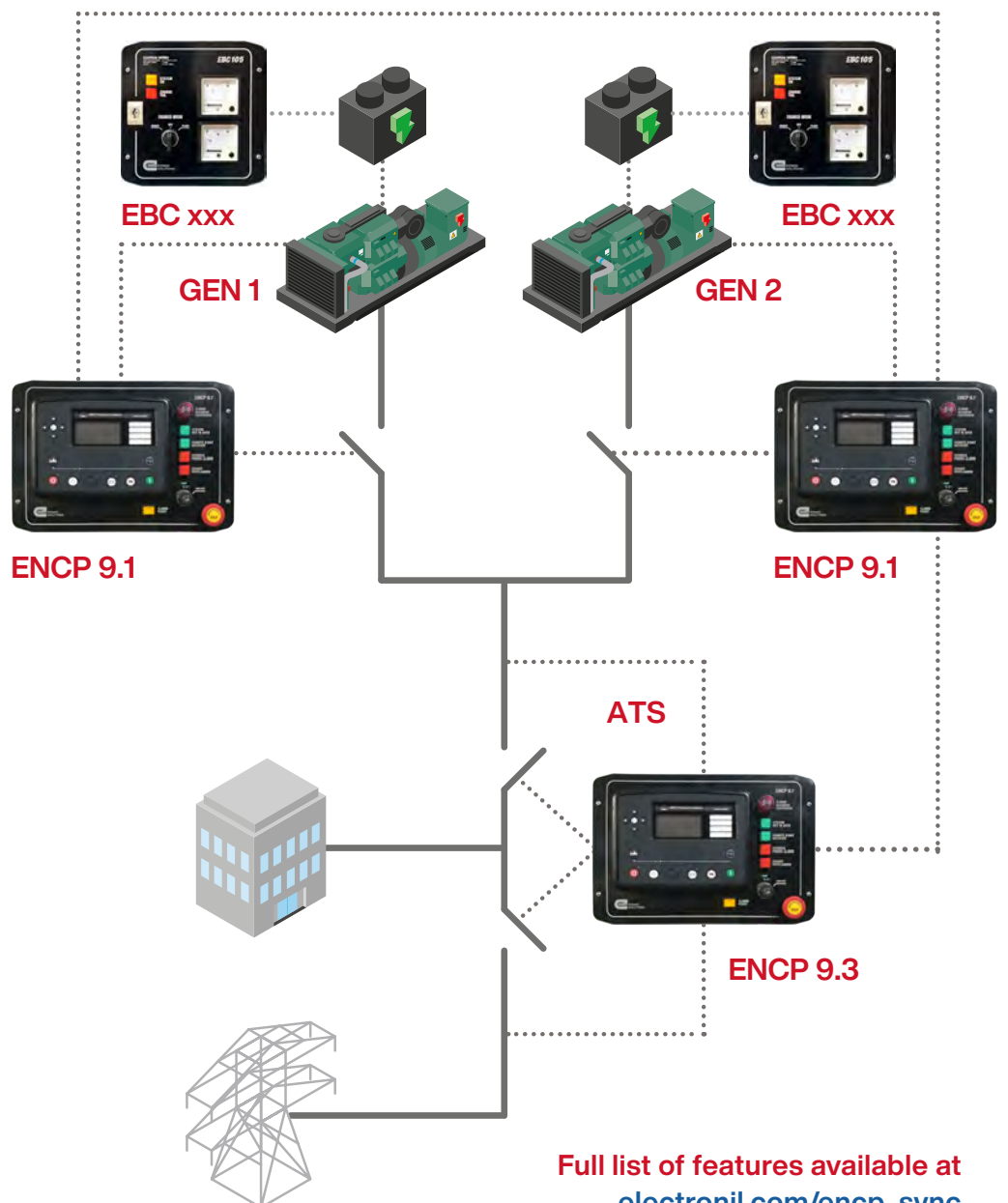
GENERATOR PARALLELING CONTROLLERS.

The ENCP 9 Series is an easy to use Synchronizing Auto Start Control System suitable for use in a multi-generator load share system, designed to synchronize up to 32 generators including electronic and non-electronic engines.

The ENCP 9 Series Monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.

With all communication ports capable of being active at the same time, the ENCP 9 Series is ideal for a wide variety of demanding load share applications, from a single module to the paralleling and load sharing of multiple units. The systems can be further customized to meet your needs through programming and expansion modules.

The ENCP 9 Series features a graphical display with an adjustable backlight as well as an advanced engine monitoring system. These features add to the sense of value and dependability that comes with your purchase of ELECTRONIL Products.

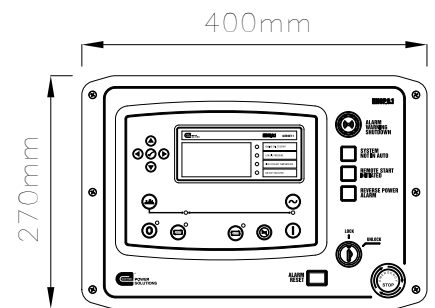


ENC P 9.1

GENSET / GENSET PARALLELING CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 400x270mm

PRODUCT HIGHLIGHTS

- Independent fuel and crank outputs.
- 5 stage dummy load and load shedding outputs.
- Independent RS485, RS232, CAN, USB and Ethernet.
- MODBUS RTU / TCP IP.
- SNMP.
- SCADA software.
- Conventional engine support (MPU & Hz).
- CAN engine support (Tier 4F / Stage 5).
- Generator load demand with sequential set start.
- 0-10 V & 4-20 mA oil pressure sensor support.
- Power monitoring.
- RoCoF and vector shift monitoring.
- Automatic hours run balancing.
- Sophisticated fuel monitoring and alarms.
- 3-phase generator voltage and current sensing.
- Sophisticated bus sensing (3-phase).
- Direct governor and AVR control.
- Advanced SMS messaging.
- Advanced PLC editor.
- Support for worldwide languages.
- Extensive data logging & trending.
- Start & stop via SMS messaging.

Full list of features available at
electronil.com/encp_9.1

ADVANCED FEATURES

INPUTS/OUTPUTS

- (12) Configurable digital inputs.
- (4) Configurable analog/digital inputs.
- (8) Configurable DC outputs.
- (2) Configurable flexible sender inputs.
- (2) Configurable Volt-free outputs.

COMMUNICATIONS

- Independent ports for RS485, RS232,
- CAN, USB and Ethernet
- MODBUS RTU
- USB for PC configuration
- SCADA software

ENGINE COMPATIBILITY

- Conventional engine support (Hz)
- CAN engine support (Tier 4F / Stage 5)

CONFIGURATION

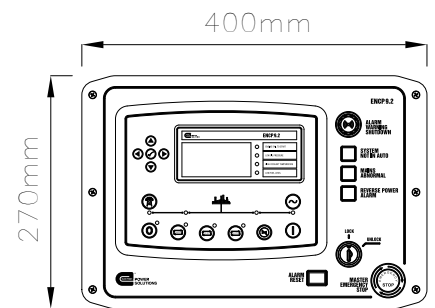
- Configuration Suite PC software
- Front panel (PIN protected)

ENCP 9.2

SINGLE GENSET / MAINS PARALLELING CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 400x270mm

PRODUCT HIGHLIGHTS

- Independent fuel and crank outputs.
- 5 stage dummy load and load shedding outputs.
- Independent RS485, RS232, CAN, USB and Ethernet.
- MODBUS RTU / TCP IP.
- SNMP.
- SCADA software.
- Conventional engine support (MPU & Hz).
- CAN engine support (Tier 4F / Stage 5).
- 3-phase mains & genset voltage and current sensing.
- 0-10 V & 4-20 mA oil pressure sensor support.
- Peak lopping and peak shaving functionality.
- kW & kV Ar load sharing.
- RoCoF and vector shift protection.
- Automatic mains (utility) decoupling with no-break return.
- Positive & negative kVAr export control.
- Volts and frequency matching.
- Sophisticated fuel monitoring and alarms.
- Direct governor and AVR control.
- Advanced SMS messaging.
- Advanced PLC editor.
- Support for worldwide languages.
- Extensive data logging & trending.
- Start & stop capability via SMS messaging.

Full list of features available at
electronil.com/encp_9.2

ADVANCED FEATURES

INPUTS/OUTPUTS

- (12) Configurable digital inputs.
- (4) Configurable analog/digital inputs.
- (8) Configurable DC outputs.
- (2) Configurable flexible sender inputs.
- (2) Configurable Volt-free outputs.

COMMUNICATIONS

- Independent ports for RS485, RS232,
- CAN, USB and Ethernet
- MODBUS RTU
- USB for PC configuration
- SCADA software

ENGINE COMPATIBILITY

- Conventional engine support (Hz)
- CAN engine support (Tier 4F / Stage 5)

CONFIGURATION

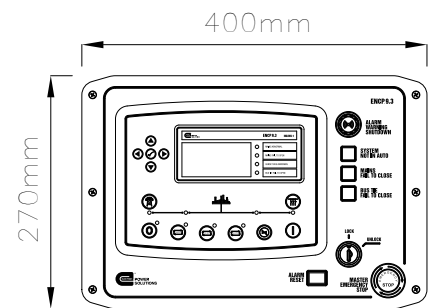
- Configuration Suite PC software
- Front panel (PIN protected)

ENCP 9.3

MULTI-GENSET / MAINS PARALLELING CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 400x270mm

PRODUCT HIGHLIGHTS

- Independent RS485, RS232, CAN, USB and Ethernet.
- MODBUS RTU / TCP IP.
- SCADA software.
- 3-phase mains (utility) voltage and current sensing.
- Peak lopping and peak shaving functionality.
- kW & kVAr load sharing.
- RoCoF and vector shift protection.
- Mains (utility) kW export protection.
- Automatic mains (utility) decoupling with no-break return.
- Generator load demand.
- Advanced SMS messaging.
- Advanced PLC editor.
- Support for worldwide languages.
- Data logging & trending.
- Multiple event scheduler.
- Native no bus breaker support for signal ATS applications.
- Separate ramp up and ramp down rates configurable via PLC.

ADVANCED FEATURES

INPUTS/OUTPUTS

- (11) Configurable digital inputs.
- (2) Configurable Volt-free outputs.
- (6) Configurable DC outputs.

COMMUNICATIONS

- Independent ports for RS485, RS232, CAN, USB and Ethernet
- MODBUS RTU / TCP IP
- SCADA software
- USB for PC configuration

CONFIGURATION

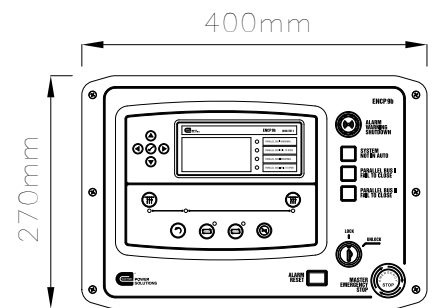
- Configuration Suite PC software
- Front panel (PIN protected)

ENCP 9b

PARALLEL BUS / BUS PARALLELING CONTROLLER.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 400x270mm

PRODUCT HIGHLIGHTS

- Enhanced bus sensing of 2 buses for improved synchronizing functionality.
- Multiple controller's can be used within one synchronizing system.
- Advanced PLC editor.
- Instrumentation shows the status and measurements of both buses.
- Advanced SMS control and fault messaging.
- Supports multiple global languages.
- Easy access diagnostic pages including modem diagnostic pages.
- Advanced data logging and trending.
- Eliminates the need for costly PLC systems.

ADVANCED FEATURES

INPUTS/OUTPUTS

- (11) Configurable digital inputs.
- (2) Configurable Volt-free outputs.
- (6) Configurable DC outputs.

COMMUNICATIONS

- Independent ports for RS485, RS232, USB and Ethernet
- MODBUS RTU / TCP IP
- USB for PC configuration

CONFIGURATION

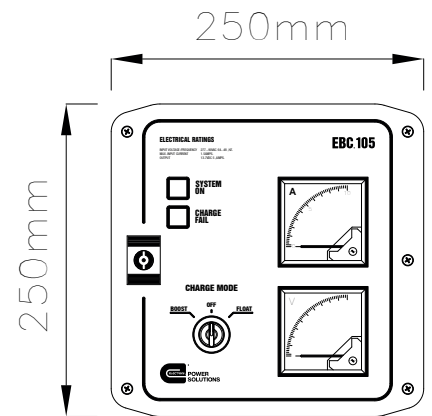
- Configuration Suite PC software
- Front panel (PIN protected)

EBC Series

AUTOMATIC ENCLOSED BATTERY CHARGERS.



Image for illustration purposes only,
Depending on your application the actual product may vary.



User Interface Size: 250x250mm

PRODUCT HIGHLIGHTS

FEATURES

- Constant current / constant voltage.
- Automatic float mode return.
- Low output ripple.
- 12VDC, 24VDC with 5 & 10Amps outputs.
- Reverse polarity, short-circuit and current limiting protection.
- Auto recovery on fault condition removal.
- Cell charge boost and equalizing.
- Power save mode.
- No moving parts – convection cooled.
- Power ON indicator.
- Charge fail indicator.
- Output voltage and current meters.
- 80% operating efficiency
- Manual Boost/Float Selection.
- Compatible with all common battery types.

ELECTROCARE

Maintenance Support Plan.

ELECTRONIL POWER SOLUTIONS Provide Comprehensive Support on All type of Generators, Switchgears, Switchboards and Control Panels Across Egypt.

Ensure your power is always there when you need it with the **ELECTROCARE Maintenance Support Plan**. Our service experts continually monitor and maintain your equipment through a comprehensive maintenance schedule which keeps your generator in peak working condition. We are always available to provide the level of service support you need.

Choose from one of four **ELECTROCARE Maintenance Support Plan** options to give your equipment the highest possible service care and maintenance cover, giving you *total peace of mind*.

Critical Functions Monitored by ELECTROCARE

Much like a human body, today's engines have critical systems that need monitoring to maintain their health. These include the lubrication, coolant, fuel, air and management control systems.

ELECTROCARE Measures the trends and vital signs of these systems, frequently monitoring for faults or other areas requiring additional attention.

The **ELECTROCARE** Report highlights any component changes we recommend and gives guidance on the optimum time to action possible faults and maximize uptime.

The ELECTROCARE Maintenance Support Plan is focused on providing onsite maintenance with an effective, high quality condition monitoring and scheduled maintenance service.

We offer a fixed menu of service giving our customer the opportunity of not only ensuring that their generator set is working to its potential, but also that faults are identified and corrected before they develop into component failures, which are costly and time consuming to repair. This is achieved by the inclusion in all our products of **ELECTROCARE Maintenance Support Plan** critical function monitoring.

ELECTROCARE Benefits

- Total support - when you need it, giving you *total peace of mind*.
- Confidence that your generator will start when you need it.
- Highest standards of maintenance and quality assurance.
- Scheduled servicing provides validation of warranty coverage.
- Cost-effective solution.
- ELECTRONIL Highly Trained engineers and technicians providing specialist expertise.
- Maximize uptime and save costs.
- Total added value package.

THE BEST WAY TO PROTECT YOUR POWER.

And Protect Your Team.

Our genuine parts are easily accessible, which can reduce customer downtime, improve your responsiveness and provide a competitive advantage.

Structured to help you deliver top-tier service and capture profits, our Parts and Service team provides the parts, people and performance you can count on.

PARTS

Designed to perform under the toughest environmental conditions, Our Genuine Parts are chosen specifically for your generator—and will be available when you need them. They undergo extensive lab and field testing as part of the overall power-system to ensure everything works as expected.

PEOPLE

Our experienced Service and Support team is available to answer your questions. Choosing genuine parts provides you with comprehensive support, training and technical assistance straight from the factory.

- Factory training
- On-site technical support
- One point of contact for all your parts and service needs
- Dedicated after-sales channel support

PERFORMANCE

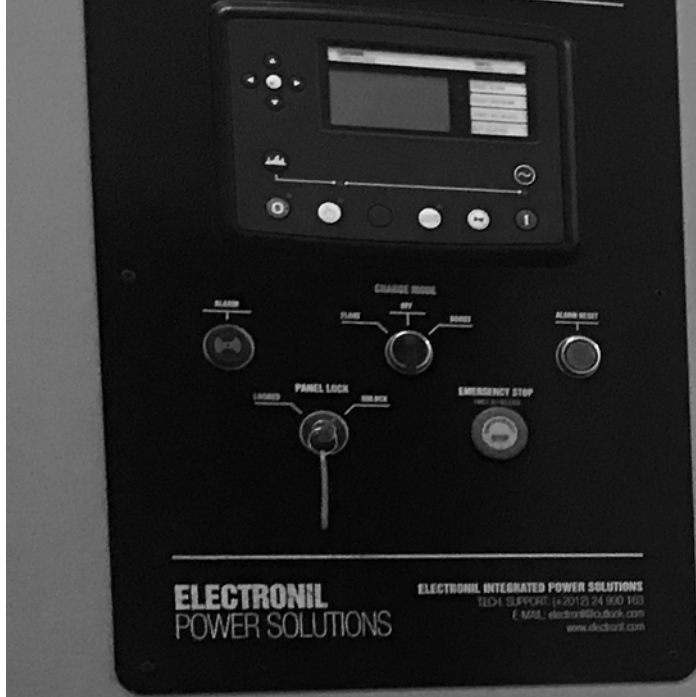
We continuously invest in better processes that make your job easier, and we're here to support you in decisions that affect your business.

- Inventory management
- Warranty management
- Lead-time strategy



Your Reliable source for advanced and integrated power solutions.





ELECTRONIL POWER SOLUTIONS

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