



Always Thinking Forward

HYBRID GENERATORS

AN ALL-IN-ONE HYBRID POWER SOLUTION



ATF POWER TECHNOLOGY FZE

ATF UK | ATF UAE | ATF CHINA | ATF SOUTH AFRICA | ATF COLOMBIA

For more information, please contact us at:

Web: www.atfpower.co.uk

E-mail: felix@atfpower.co.uk

Mob: +971503740188

Addr: Jafza One Building - Tower A2204 - P.O. BOX 261513 Jabel Ali Free Zone - Dubai - United Arab Emirates









THE POWER OF HYBRID INNOVATION

HYBRID SOLUTIONS







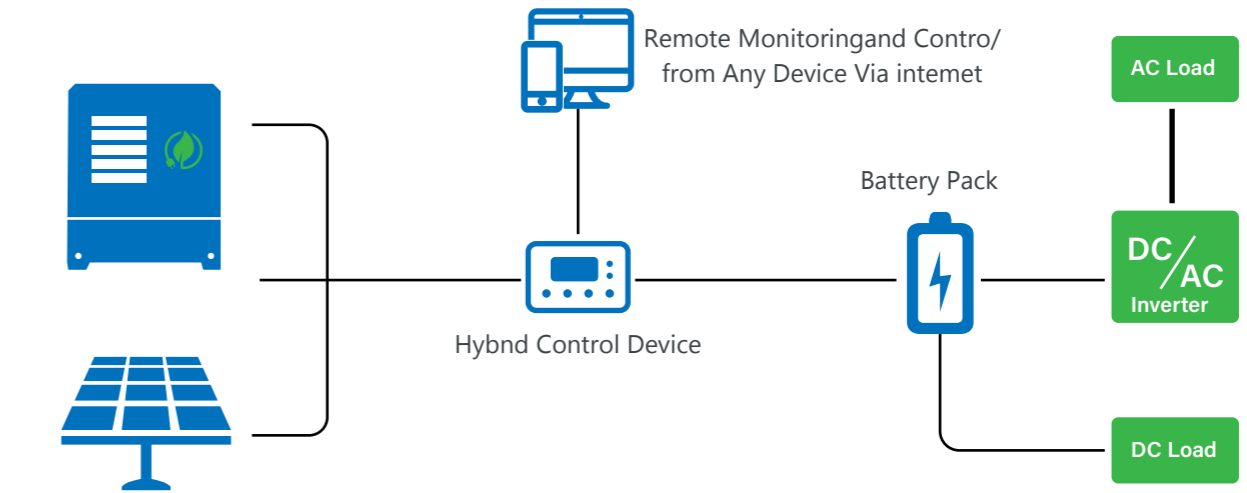
ATF proudly present the new generation Intelligent Hybrid Generator. It is not just a generator, but an integrated, intelligent energy solution that combines traditional diesel power, efficient energy storage, and green solar technology. Designed for those who seek efficiency, environmental protection, quiet operation, and versatile applications.

These hybrid generators feature an innovative design meeting the strictest environmental regulations and helping end-users to optimize their operational performance and costs. Thanks to their high resilience in fast and easy connection, these models are unrivaled when it comes to flexibility.





 Low opex	 Eco friendly
 High Efficiency	 Cutting edge technology
 Reduced fuel consumption	 Lower polluting and carbon emissions

The Four Core Subsystems

<p>GENERATOR </p> <p>A diesel generator. This is the reliable workhorse for heavy lifting and long runtimes.</p>	<p>BATTERY BANK </p> <p>Typically high-capacity Lithium-ion (especially LiFePO4 - Lithium Iron Phosphate) batteries. This acts as a silent, instant power reserve.</p>	<p>INVERTER </p> <p>A crucial component that converts the DC (Direct Current) electricity from the batteries into clean, stable AC (Alternating Current) electricity that your appliances and tools need.</p>	<p>INTELLIGENT CONTROL SYSTEM </p> <p>The "brain" of the operation. It automatically manages and switches between the different power sources based on demand and settings.</p>
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HOW DO THEY WORK? THE DIFFERENT MODES

MODE	HOW IT WORKS
 Battery-Only Mode	The system powers the load silently using only the stored energy in the batteries. The generator is off.
 Generator-Only Mode	Operates like a traditional generator, burning fuel to power the load and, optionally, charge the batteries.
 Hybrid Mode	This is the key feature. The generator and battery work together. The generator runs at its most fuel-efficient speed to power the load and simultaneously charge the batteries. During sudden, high-power demands (like starting a motor), the battery instantly provides extra "peak shaving" power, preventing the generator from being overloaded.
 Solar Mode	(If equipped) Solar panels charge the battery bank. The system can then use this free, renewable energy to power the load in Battery Mode, drastically reducing fuel use.

Application Fields

Hybrid Generators, which provide environmentally friendly efficient energy, are preferred in many areas thanks to their remote monitoring system.

 <i>Remote Telecom Base Stations</i>	 <i>Oil Well-heads & Signalization Nodes</i>	 <i>Off-shore Platforms</i>	 <i>Remote Military Platforms</i>	 <i>Meteorological Measurement Stations</i>	 <i>Residential Areas without Electricity Grid Connection</i>	 <i>Outdoor Events & Camping</i>
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KEY BENEFITS AND ADVANTAGES

Advanced Battery Tech

Utilizes LiFePO_4 (Lithium Iron Phosphate) batteries, It delivers superior advantages over traditional lead-acid batteries in terms of safety, cycle life, and performance stability.



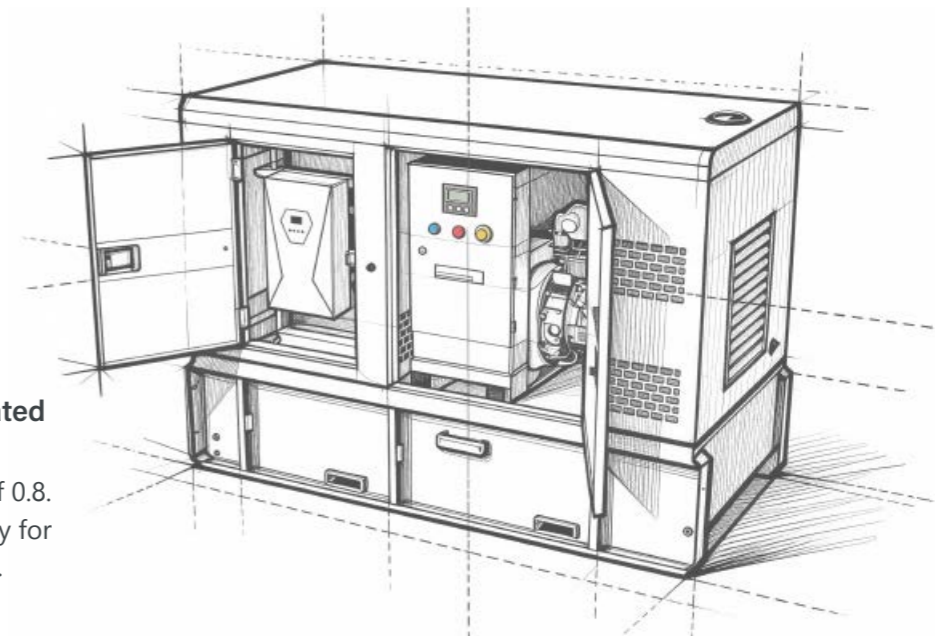
Intelligent Battery Management

Each battery pack is equipped with a built-in BMS (Battery Management System), acting as an "intelligent brain" for precise charge/discharge control, SOC monitoring, cell balancing, and protection against overcharge, overdischarge, and overheating. This design effectively extends overall battery service life.



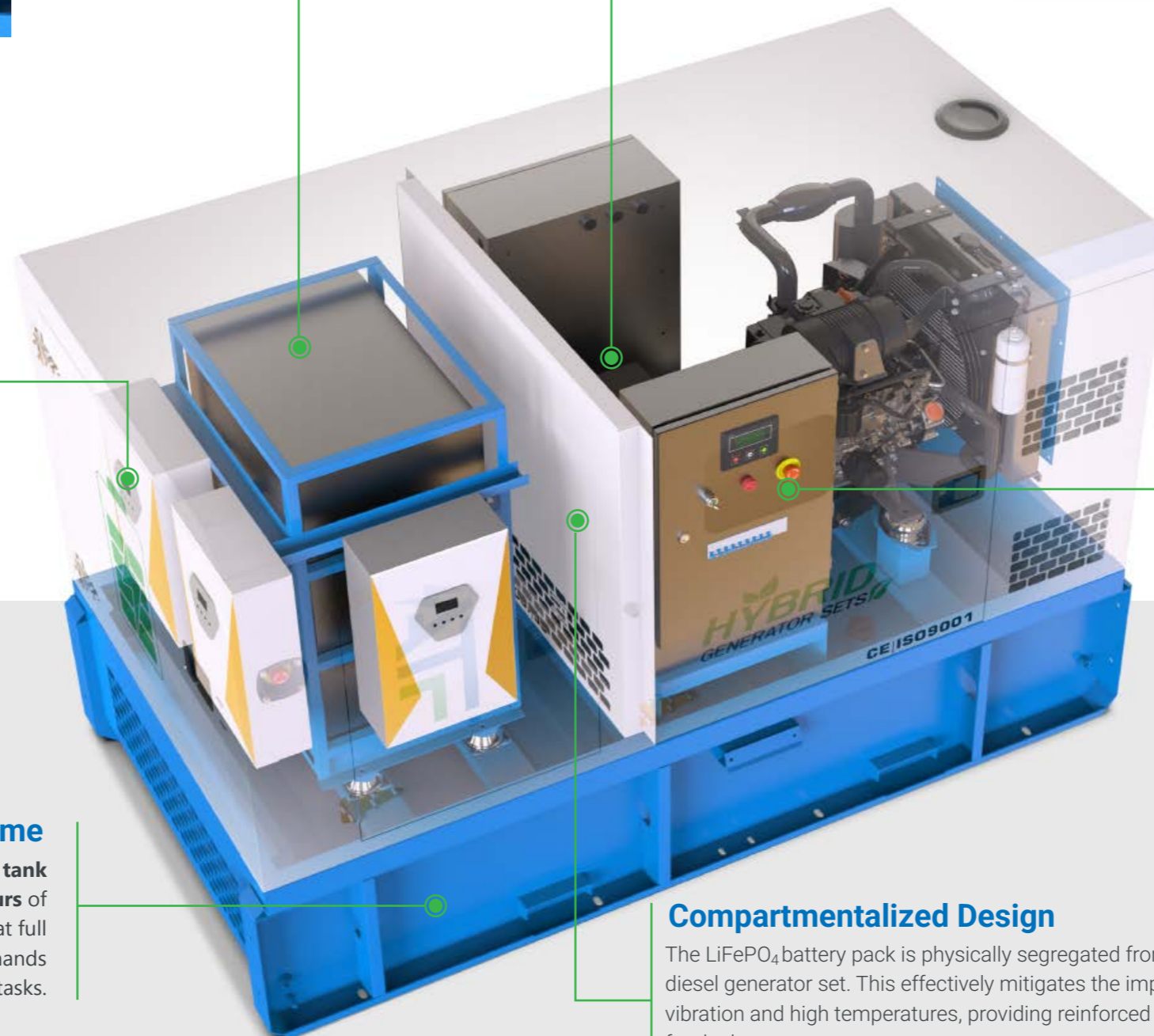
Efficient Generator

Features an ATF three-phase rated engine, delivering full and stable power with a high power factor of 0.8. It supplies clean, reliable electricity for three-phase industrial equipment.



Triple Inverter Assurance

Integrates three sets of 6200 W dual-mode inverters with full-output power, delivering robust total inverter capacity. It not only performs perfectly efficient DC-AC conversion, but also integrates a solar charging function. This enables direct connection to solar panels to convert green energy into usable electrical power.



Intelligent Control Hub

The unit's controller is powerful, integrating energy storage battery voltage detection and automatic charging control. It can automatically start/stop the diesel engine to charge the batteries based on their SOC, achieving automated energy management.

Intelligent Control

Offers both Automatic and Manual mode selection. In Automatic Mode, the system intelligently switches between optimal power sources based on real-time load demand and battery status, providing true set-and-forget convenience.

Extended Runtime

The built-in base fuel tank supports up to 8 hours of continuous operation at full load, meeting the demands of long-duration tasks.

Compartmentalized Design

The LiFePO_4 battery pack is physically segregated from the diesel generator set. This effectively mitigates the impact of vibration and high temperatures, providing reinforced protection for the battery system.



Get Your Energy from Nature

Hybrid Gensets for a Sustainable Future!



Multi-Application In One

● Diesel-Only Mode

Handles continuous high-power loads with proven, reliable performance.

● Hybrid Mode

Our flagship feature! The diesel engine and battery work in synergy, instantly responding to drastic load fluctuations. This provides exceptionally stable power output, making it ideal for high-inrush current applications like motor start-ups and effectively protecting sensitive equipment.

● Battery-Only Mode

Delivers zero-noise, zero-emission operation, perfectly suited for night-time use, residential areas, and indoor environments where silence is critical.

● Solar Mode

Charged by clean solar energy through solar panels. It utilizes clean energy for charging, significantly reducing fuel consumption, operational costs, and environmental impact.

Technical Data



DIESEL GENERATOR SET	
Engine Brands	Yanmar / Kubota
Generator	ATF
Rated Power	12 kW
Output Voltage	400/230 V
Phase	3PH
Frequency	50 Hz
Fuel Tank	300 L
ENERGY STORAGE BATTERY	
Total Battery Capacity	30 kW
Battery Type	Lithium Iron Phosphate (LiFePO ₄)
Battery Configuration	16S1P
Nominal Voltage	51.2 V
Battery Capacity	200 Ah
Rated Energy	10.24 kWh
Communication Interfaces	RS485 / RS232 / CAN
Air-cooled	Air Cooling
Cycle Life	≥ 6000 cycles
Operating Temperature Range	Charging: 0 °C ~ 50 °C
	Discharging: -20 °C ~ 55 °C

Built-In Protections:

- Over-charge Protection
- Over-voltage Protection
- Over-discharge Protection
- Charging Over-current Protection
- Short-circuit Protection

INVERTER	HYBRID SOLAR INVERTER
Display	LCD Screen supports real-time monitoring of operation mode, load status, input power, output power and other system data
Communication Ports	BMS communication, signal contact
Parallel Operation	Supported
Solar PV Input	Supported

Supported Operating Modes

- Genset-only Mode
- Genset-only Mode
- Diesel & Battery Hybrid Mode
- Solar Mode