EHR

BATTERY POWER GENERATOR
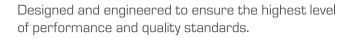
EHR 20/40

BATTERY POWER GENERATOR

Mobile Power
Zero Emissions | Zero Noise

EHR | BATTERY POWER GENERATOR

A Smart Energy Storage and Distribution System, guaranteeing zero noise & emissions.

Designed and engineered to ensure the highest level of performance and quality standards.

HIPOWER ®
A YANMAR COMPANY

Mobile Power
Zero Emissions | Zero Noise

What is the **EHR**?

HIPOWER SYSTEMS **EHR | BATTERY POWER GENERATOR** is an energy storage and distribution system, which can operate independently, guaranteeing zero noise and emissions. Also, the **EHR** can be integrated into a hybrid power generation system using diesel or spark-ignited generators or connected to the grid and photovoltaic modules. The main goal of the **EHR** is to guarantee a higher energy efficiency and optimize emissions and noise.

HICORE®
HIPOWER SYSTEMS

It's the HIPOWER-designed management system that lets operators select the most favorable power source for a specific load condition at any given time. It can be integrated with diesel and spark-ignited generator sets or connected to public electricity grids and renewable energy sources.

HICORE®
HIPOWER SYSTEMS

LOAD

User Friendly

Easy system configuration and handling. Smart guidance throughout the start-up process with smart assistant, making it easy to operate the unit.

Always Connected

Get all the performance information you need through C4CLOUD, which comes pre-installed on the unit. Monitor, read and analyze all the performance and load profile information locally or remotely to optimize your site's power solution.

100% USER FRIENDLY

Smart assistant to set up a working mode or to charge batteries

Modes of Use

How does EHR work?

The pre-configured working mode selector allows the user to configure the Battery Power Generator for the different applications or modes of use: Plug & Play, Light Loading, Peak Shaving, UPS, and Load Sharing.

The goal of these modes are to optimize energy production by increasing efficiency, flexibility, and sustainability, while at the same time reducing total emissions.

Plug & Play

To ensure immediate start-up, the Plug & Play mode allows the **EHR** to automatically decide which is the best operational option at any given moment based on a constant analysis of the load profile and the connected sources.

Peak Shaving

Some cases the generators are subjected to load spikes above the optimum power (>70%) that make the generator have to be oversized in order to be able to assume them which leads to increased operating costs, higher fuel consumption and higher CO_2 emissions.

Load Sharing

In the event that we need an additional working source with our generator set or network, we can synchronize the output powers with the **EHR** providing the additional power that is needed.

Light Loading

Most of the time, diesel generators spend much of their service life inefficiently running at light loads (<30%), resulting in pollution fuel waste, and wet stacking.

UPS

Provides power in case of power failure reaching a response time of 20 msec. Perfect for critical sectors during power outages.

EHR | Features & Benefits

Prevents generator work at light loading.

Improves generator life, making it always work at an optimal load level.

Reduces fuel consuption. The integration with solar allows greater savings.

Support the genset to cover high load peaks.

Prevents oversizing of the generator to assume load peaks, optimizing their operation for average load.

Zero emissions & zero noise. 100 % clean solution. Reduces your carbon footprint.

Renewable Energy
Ready to connect Plug&Play PV panels to the system. Including up to *8kW MPPT, we can integrate renewable energies into any working mode, increasing efficiency.

Model 40/60 Split Phase includes 4kW MPPT.

Accessibility & Maintenance
Removable side doors and a roof door. Easy access to change air filters.

Ease of Use
HICORE, smart management system is a User-friendly interface designed by HIPOWER to simplify your day-to-day work.

Robust Design
The mobile rental canopy withstands extreme environmental conditions and temperatures from 5°F to 113°F. The canopy has best-in-class primer and powder coating. Galvanized frame optional.

Connectivity
Smartphone App (Remote configuration, maintenance & diagnostics) / Web Portal / 3G/4G Remote Communication, Dual SIM Modem/Router.

Transport Efficiency
The design includes a lifting eye, skid frame with forklift pockets, anti-theft features and rental skid for towing and winching.

		EHR10/10	EHR10/20	EHR15/15	EHR15/30	EHR20/20	EHR20/40	EHR30/30	EHR30/60	EHR40/60
Nominal power	kVA	10		15		20		30		40
Storage capacity	kWh	10.7	21.3	14.2	28.4	21.3	42.6	28.4	56.8	56.8
Voltage (60Hz)	VAC	240V/120V		208V		240V/120V		208V		240V/120V
Lifespan (90% DoD)	Cycles	6000		6000		6000		6000		6000
Battery management system		LFP batteries with built-in BMS								
Recharge time / Maintenance time*										
• Recharge time	h	1.38	2.75	1.22	2.45	1.17	2.34	1.28	2.45	2.17
• Maintenance recharge (@DoD%)	h	2.79	5.59	3.72	7.45	5.59	11.17	11.17	14.90	9.77
Dimensions (L x W x H)	in	65 x 43.30 x 59		65 x 43.30 x 59		65 x 43.30 x 71		65 x 43.30 x 71		
Weight	lbs	915	1127	1080	1221	1508	2072	1508	2072	3373

*Considering a total system efficiency of 0.829 (Inverter 0.95 | Battery 0.9 | Wiring 0.97)

MODEL		EHR10/10	EHR10/20	EHR15/15	EHR15/30	EHR20/20	EHR20/40	EHR30/30	EHR30/60	EHR40/60
Nominal power	kVA	10		15		20		30		40
Storage capacity	kWh	10.7	21.3	14.2	28.4	21.3	42.6	28.4	56.8	56.8
Discharge autonomy*										
• 100% of the rated power	h	0.74	1.47	0.66	1.31	0.74	1.47	0.66	1.31	1.09
• 75% of the rated power	h	0.98	1.97	0.87	1.75	0.98	1.97	0.87	1.75	1.46
• 50% of the rated power	h	1.47	2.95	1.31	2.62	1.47	2.95	1.31	3.12	2.18
• 25% of the rated power	h	2.95	5.90	2.62	5.24	2.95	5.90	2.62	5.24	4.37

*Considering a total system efficiency of 0.829 (Inverter 0.95 | Battery 0.9 | Wiring 0.97). DoD@90%

What are the advantages of Hybridization? (EHR + *Generator*)

The **EHR** can operate as a main power source, reducing emissions and noise to zero. Also, it can be combined with a diesel or spark-ignited generator set to enable intelligent load management. Fuel consuption and CO2 emissions are reduced drastically in these combined working scenarios.

The Perfect Match!

· Reduce maintenance checks by up to 50%

· Reduce fuel consumption by up to 40%

· Improve the genset load profile

· Avoid oversizing the genset to start electrical motors

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