

Atlas Copco

The future of compact hybrid power generation

Integrated Hybrid Generator Range



The future of compact hybrid power generation

What are Integrated hybrid generators?

Our integrated hybrid generator is engineered for industrial rental companies, combining diesel engine, alternator, batteries and power electronics into a single compact unit. This all-in-one design simplifies logistics, speeds up deployment, and reduces training needs. With a strong focus on ease of use and ease of rent, it offers a seamless experience for operators and renters alike. The unit includes multiple socket options, a terminal board, external fuel connections, and the FleetLink telemetry system for remote monitoring and diagnostics — ensuring maximum uptime and operational control.

This hybrid system delivers up to 80% fuel savings compared to conventional diesel generators, reducing CO₂ emissions up to 80% and cutting engine runtime up to 95%. These performance gains translate into a significantly lower Total Cost of Ownership (TCO) — reducing fuel expenses, maintenance costs, and maintenance interventions. It's a strategic investment for rental fleets seeking both environmental responsibility and financial efficiency.



Reasons to use hybrid generators?



Up to 80%
less fuel consumption



Up to
95% Generator
time reduction



6X Less service
maintenance per year



Lower emissions
Up to 80%
CO₂ savings



One click
solution



HYBRID
TECHNOLOGY

Integrated hybrid portfolio

The QHS Hybrid Generator is a Portable Power Solution designed to maximize energy production, labor and transport efficiency for the rental market, combining diesel engine, alternator, batteries and power electronics into a single compact unit. From construction sites to events and industrial applications, it adapts seamlessly to every job. A truly versatile unit, purpose-built to increase flexibility and efficiency for rental fleets.



Construction



Events



Mining

Hybrid	Engine	Power electronics	Batteries energy capacity	Total Max Hybrid Power
	kW/kVA	kW/kVA	kWh	kW/kVA
QHS 120 S5	48 / 60	60 / 60	60	108 / 120
QHS 200 S5	93 / 116	90 / 60	60	183 / 206

ECO Controller - Power Made Effortless

The brain of the integrated hybrid generator, delivers a fully autonomous operating system designed to make operation seamless for any user, even without prior technical knowledge. Considering all working conditions the system intelligently decides when to run on battery and when to activate the diesel generator. The 1-Click Start/Stop function allows a single button to power up or shut down the entire system, including all subsystems. Driven by a smart algorithm, the ECO Controller continuously ensures optimal performance, fuel efficiency, and maximum uptime without the need for manual configuration.



Sustainability edge

- Monitor and control sources of energy, CO₂ emissions and energy production

Display

- 10 inches high brightness touch screen
- Comprehensive schematic with Flow of Energy

Safety

- Navigation control through access codes and user profiles

Working modes

- Standard ECO mode (Automatic Hybrid)
- Advanced modes
- Owner self-configurable customer interface

Output

- Voltage, frequency, power
- Circuit Breakers status
- Machine status
- EPA icons
- Levels: fuel, battery (SOC), DEF

Integrated hybrid generator QHS range



Integrated hybrid technology

- 1 click to start and stop
- Automatic hybrid mode plus advanced modes
- Ability to connect to additional power sources (Solar and Grid)



Lithium-ion technology

- Safest storage technology (Lithium-iron-phosphate)
- Perfect match for short cycles (charge and discharge) performance
- Large usable energy range compared to other technologies
- Low total cost of ownership

Transportability

- Ease of handle and transport with single elevation point
- Sturdy multi-drop base frame with integrated forklift pockets
- Transport bumpers and tie down points



Performance

- Stage V emissions compliant
- HVO ready
- High capacity fuel tank
- Refinery equipment: Integrated spark arrestor and air shut-off valve (option)
- Extreme weather equipment: engine electric coolant heater and HVAC for enhanced batteries performance

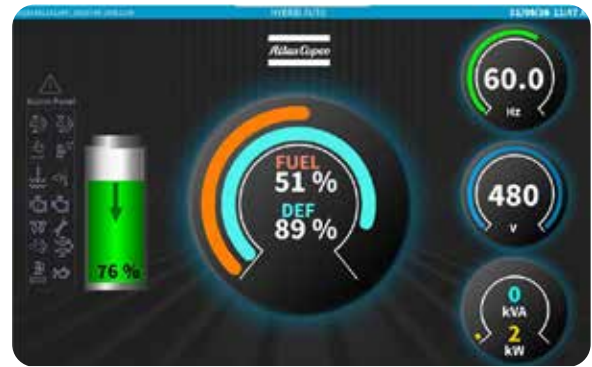
stageV
COMPLIANT





The era of connectivity

- ECO Controller™, dedicated management system – Single control interface
- FleetLink remote monitoring with 2-way communications
- Technical diagnosis, counters and CO2 fuel saving calculations



Plug and play

- Multiple socket and protection combinations:
Input:
* CEE 5P 32A 400V
* CEE 3P 16A 230V
Output, terminal board and,
* 1 or 2 rows Power Locks 400A
* CEE 5P 125A 400V
* CEE 5P 63A 400V
* CEE 5P 16 or 32A 400V
* Single phase sockets 3P 16A 230V RIM, PIN or CEE
Protections:
* Earth Leakage Relay, type A, type B
* Pad-lockable battery switch



Environmental resistance

- Alternator winding protection (System 4 and heaters)
- Galvanized Steel canopy and powder coating with 720h salt spray resistance
- Double layer painting base frame with 480h salt spray resistance
- 110% self containments

Service efficiency

- Service intervals 600h engine and up to 4.000h hybrid
- Serviceability through internal light and big access doors and panels (engine and batteries)
- Heavy duty fuel filtration system with water separator
- Double lifetime benefit
- Dual Stage Air Filter with safety cartridge
- Oil drain pump and external drains
- Lockable external fuel filling point
- External fuel supply with fast connections
- 6x less service benefit

Technical specifications



Hybrid Generator	Unit	QHS 120 S5						QHS 200 S5					
Rated frequency	Hz	50						50					
Rated voltage	VAC	400 / 230						400 / 230					
Maximum hybrid power 25°C	kVA/kW	120/108						206/183					
Hybrid ¹ Specific Fuel Consumption 0% 10% 25% 50% 75% 100% ²	l/kWh	-	0.3	0.3	0.27	0.28	0.29	-	0.27	0.26	0.25	0.26	0.26
Hybrid ¹ Fuel Consumption 0% 10% 25% 50% 75% 100% ²	l/h	0	2.9	7.1	12.6	19.5	27.5	0	5	12.1	23	35.8	48.5
Total Autonomy 0% 10% 25% 50% 75% 100% ²	h	-	79.5	32.4	18.2	2	1	-	96.4	40.1	21.1	1	0.5
ESS Rated power 25°C	kVA/kW	60/60						90/90					
Battery pack capacity	kWh	60						60					
Rated/Net energy storage capacity	kWh	61.5 / 58.5						61.5 / 58.5					
Recharge time at no load, full SOC and with internal engine	h	1.56						0.80					
Recharge time at no load, full SOC and with grid	h	1.31						1.31					
Depth of discharge (DoD%)	%	95						95					
Battery type	h	Lithium Iron phosphate LiFePO4						Lithium Iron phosphate LiFePO4					
Operating temperature	°C	-10 to 50						-10 to 50					
Prime power diesel (PRP)	kVA / kW	60/48						116/93					
Fuel Tank Capacity: daily	l	230						485					
Dimensions and weight													
Net / Wet mass (with standard daily fuel tank)	kg	4300 / 4500						4500 / 4900					
Dimensions (L x W x H)	m	4.3 x 1.1 x 1.9						4.5 x 1.1 x 2.2					

1-Hybrid Fuel Consumption considers only QAS power source for battery recharging. | 2-Considering Maximum hybrid power as 100%, @25°C and energy fully charged. Atlas Copco is not responsible for any problem that may occur due to errors or changes of these data. They can also be changed or rectify without prior notification.

Solar power to boost savings

Boost operational efficiency through solar arrays that can be directly connected to the Integrated Hybrid Generators through the optional solar input. Integration of our ZSC and ZSP solar arrays into the integrated hybrid generators, CO2 emissions and operational costs can be even further decreased.

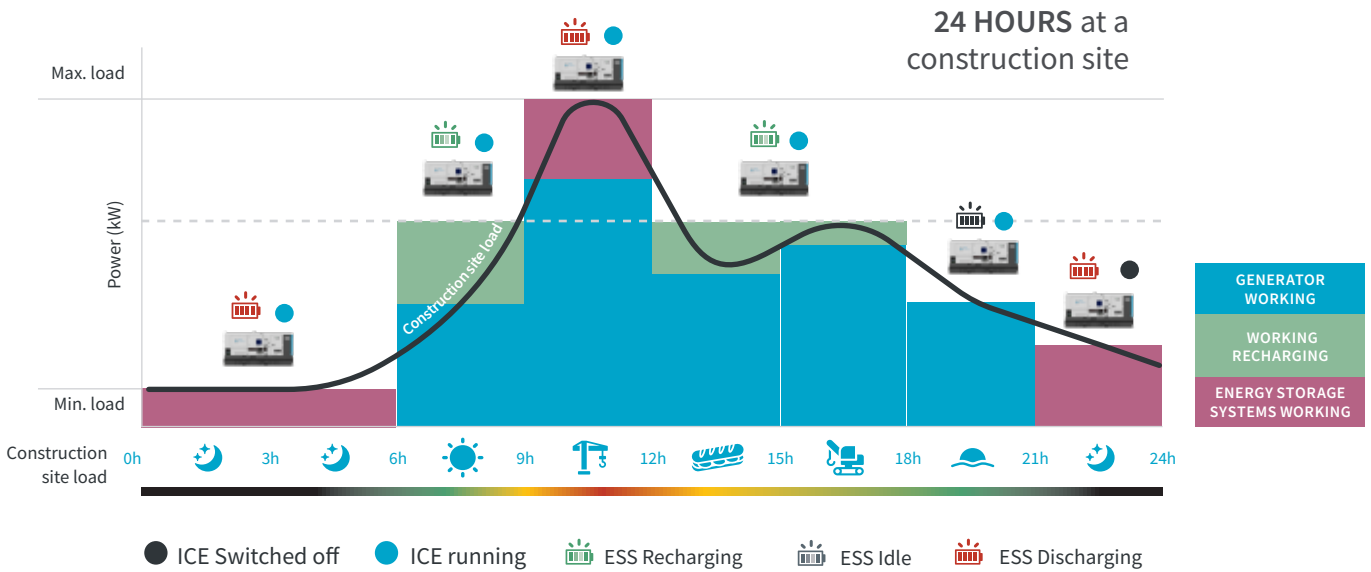
Solar input
up to 10kW

Up to 12h silent
power (@10kW)

Solar input as option

Hybrid mode

In hybrid mode, the ECO Controller™ successfully manages energy coming from different sources, such as batteries, diesel engine, renewables (like solar) and can even be connected to the grid.



Hybrid technology

With a wide offer of socket options, the units are easy to connect to the different energy sources available on site. Also, thanks to ECO Controller, Atlas Copco's Energy Management System (EMS), these units can be synchronized to increase the power offering to match the demand.



Energy savings

This hybrid system delivers up to 80% fuel savings compared to conventional diesel generators, reducing CO₂ emissions up to 80% and cutting engine runtime by more than 95%.



These performance improvements translate into a significantly lower Total Cost of Ownership (TCO), reducing fuel expenses, maintenance costs, and maintenance interventions.

Rental ready - One click solution

Intuitive operation with a click of a button. Our ECO Controller serves as brains of the operation and automatically decides if the power will be supplied from the diesel engine or the battery. This ensures efficient operation of the engine at all times, as the surplus of energy created is stored in the batteries.



Hybrid solution



Hybrid solutions

Hybrid and suitable to renewables



Reduced machine footprint

50% smaller footprint



Energy savings

Up to 80% less fuel consumption

*When working in hybrid mode with power generators

Product portfolio

Energy Storage Systems

Portable
2-6 kVA



Mobile
15-150 kVA



Container
250-1000 kVA



Fast Charging Station



Light Towers

Hybrid



Solar



Electric



Diesel



Generators

Hybrid
120 - 200 kVA

stageV



Specialized
1,6 - 660* kVA

stageV



Versatile
9-1500* kVA



Large Power
1350 kVA

stageV



*Multiple configurations available to produce power for any size application

Dewatering Pumps

Electric
submersible
up to 18 000 l/min



Electric self-priming
centrifugal
833-23.300 l/min



Self-priming
centrifugal
833-23.300 l/min



Online Solutions

FleetLink

Intelligent telematics is a system that helps optimize fleet usage and reduce maintenance, ultimately saving time and cutting operating costs.



Pump sizing calculator

With a few inputs, this pump sizing calculator will help you to compare dewatering submersible models and find the right one for you.



ECO calculator: Your sizing tool

A useful calculator to help you choose the best solution for your power and light needs.



Atlas Copco

Atlas Copco Power Technique
www.atlascopco.com