

IAN MOTION

NOMAD 110.30

The Ultimate High-Capacity Mobile Power Solution



an innovation by **NESTOR + IAN MOTION**

NESTOR

The core of our business is equipment hire, but our passion is inventing new technical solutions designed to improve day-to-day life for teams on shoots.

Out of the ordinary setups, unusual staging, difficult timeframes: Nestor supports you with the logistical aspects of your projects by advising you on the products adapted to your needs. The company has set itself apart by becoming a one-stop shop for all production equipment, with a range of 700 products available for rental and sale.

To best meet the requirements of the field, we design our own innovative equipment.

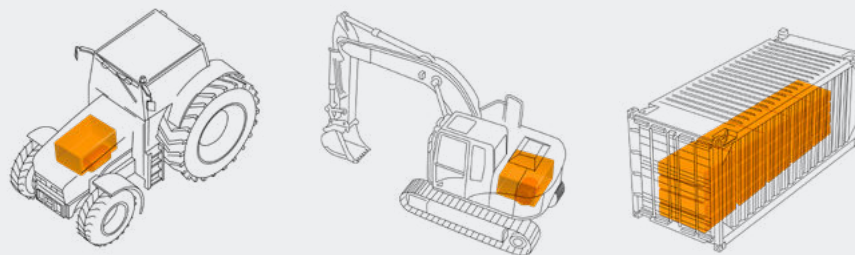
We're committed to an eco-friendly approach, which is reflected in our manufacturing processes: the products we design are invented, prototyped and assembled in our workshops with particular attention given to reparability and the choice of materials used.

For us to offer teams sustainable energy solutions at the very forefront of filming, we went to Ian Motion, a company based in Le Mans that has honed its reputation for its work in automotive retrofitting.

IAN MOTION

Ian Motion designs, manufactures, and markets battery-powered electric systems for all types of off-highway applications. They offer turnkey electric motorisation solutions for construction machinery, agricultural and agroforestry equipment, material handling machines, as well as mobile energy storage solutions to replace traditional generators.

Their vertically integrated approach, from concept to mass production, allows them to innovate at every stage, ensuring maximum reliability and reducing the total cost of ownership (TCO).



EMPOWERING THE ENERGY SHIFT

Established in 2016, Ian Motion was created from the ambition of its founders to accelerate the energy transition by replacing combustion engines with battery-powered electric systems in applications where it is both appropriate and technically viable. Their team comprises specialists from the automotive and engine industries, with expertise in developing electric and hybrid powertrains. Their vast experience in design and validation allows them to offer efficient solutions tailored to the specific needs of different sectors, positioning the company as a key contributor to the shift towards a cleaner and more sustainable industry.

A STRONG PARTNERSHIP

Ever since meeting with Ian Motion in 2019, we wanted to pool our respective skills and expertise to come up with innovative solutions that would be useful to our industry based on the strength of their technological knowledge. Over the years, the desire to combine forces within a project came to fruition and we worked on a first series of small-calibre mobile models: the Nomad 3.3, released at the end of 2021. These models are still used by Nestor's customers day-to-day, but the competitive market has pushed us to get back to work to offer a new, more powerful, highly-optimised range, combining the necessities of being compact, eco-friendly, and mobile for our clients.

SHARING A SUSTAINABLE VISION

Ian Motion and Nestor share the same vision: technological choices are led by a strong commitment to sustainability and reducing environmental impact.

Preference is systematically given to technologies which are the least resource-intensive, such as LFP (Lithium Iron Phosphate) batteries which avoid the use of critical metals. We work with like-minded suppliers to ensure that every part and component used in our electrical systems meets the highest standards of sustainability.

This approach reflects our desire to actively contribute to a more environmentally friendly future.

Our innovations are designed in keeping with our code of values: to create quality products with an eco-friendly, ethical approach. Producing in France, locally, is essential to control the various stages of production. With this choice, we sustain employment, know-how, and production tools while limiting emissions related to the transport of goods. All of the prototyping and assembly stages are carried out on our premises by our team. Our products are designed to be durable and easily repairable.

BATTERY

Mechanical design, thermal management systems, welding and assembly processes have been developed in-house. We only work with LFP chemistry which has the robustness and durability necessary for industrial applications. Mastery of BMS, LFP chemistry, and the assembly process allows us to offer the most attractive prices on the market.



BMS

Battery Management System, this is the electronic component which ensures the battery functions correctly by implementing physical measures and algorithms. We've fully developed the specific hardware and on-board software. BMS is integrated into all of our current client projects.



CHARGING

Our charging control units give our clients easy access to fast charging and let them interface with all the on-board chargers available on the market.



MOTOR

Design of electric motors specific to our applications with the aim of responding to constraints of price, lead time, and integration.

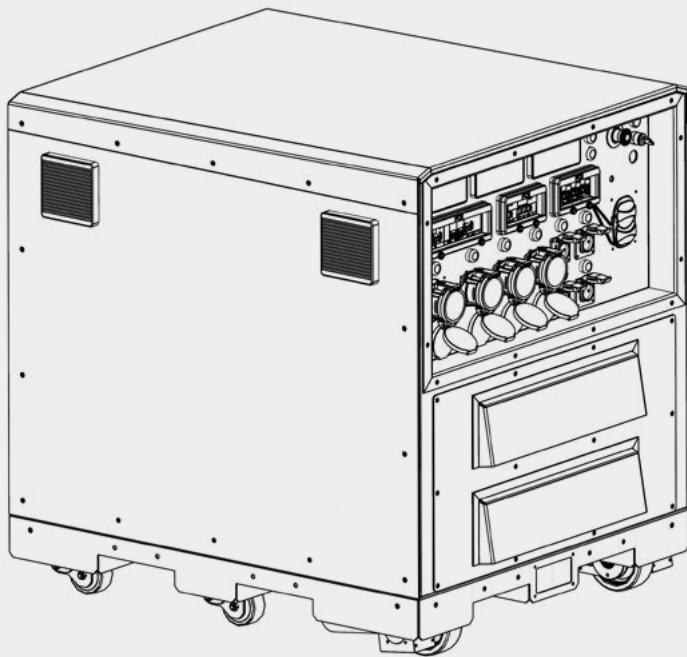




Prototype du Nomad 110.30

NOMAD 110.30

Mobile power generation, extended autonomy, fast charging.



Continuous power
30kVA



Capacity
109kWh



Euro pallet format
990 KG



10-90% charge
1h00



Connected
Remote diagnostics
& tracked



10 years
of daily use

SUSTAINABLE POWER

The Nomad 110.30 represents a major breakthrough in mobile energy storage and production, designed to replace traditional generators across various sectors such as cinema, events, and public works. This innovative solution addresses the critical need to reduce dependence on fossil fuels while delivering the level of performance expected by the most demanding users.

BUILT FOR TRUST

All our expertise has been harnessed in developing the battery pack tailored to the specific demands of the Nomad 110.30, as well as in the creation of the supervision system and the rapid charging management system. These developments are the culmination of the rigorous processes of design, development testing, validation testing, and certification, ensuring that the Nomad 110.30 not only meets performance criteria but also stands out for its reliability and cost-efficiency.



CHARACTERISTICS

Battery capacity	109kWh	Length	1200mm
Battery chemistry	LFP	Width	1000mm
Expected cycle life	3500 cycles	Height	1200mm
Continuous output power	30kVA	Mass	990kg
Peak output power (15s)	37,5kVA	Can be moved with L1H1 van	
AC output type	230Vac single / 380Vac three	Optional lifting hook	
DC charging power	100kW	Optional transport platform	
AC charging power	3,3kW / 6,6kW / 10kW / 20kW	Large character digital displays	
Charging interface type	2 Combo CCS	Proprietary battery technology	
AC output socket	CEE plug or Maréchal	CE certified	
Optional MPPT input		Designed and manufactured In France by Ian Motion	

* @1 charge / discharge cycle per day

CHARACTERISTICS

The Nomad 110.30 measures 1200mm in length, 1000mm in width, and 1200mm in height. It is mounted on a Euro pallet, making it exceptionally easy to handle. Its weight has also been kept to 990kg, making it not only the most compact but also the lightest solution in its category, and the only one transportable in an L1H1 van.

A POWERFUL BATTERY

The battery, designed and assembled by Ian Motion, uses LFP (Lithium Iron Phosphate) chemistry. This chemistry was selected for its exceptionally long lifespan: approximately 3,500 charge and discharge cycles, or 10 years at the rate of one full cycle per day. It is also highly resistant to thermal shocks, providing the highest level of safety available today. Additionally, it contains no nickel, manganese, or cobalt, thereby reducing its environmental footprint and cost. All these factors make LFP chemistry the best choice for demanding industrial applications. The battery capacity of the Nomad 110.30 is 109 kWh gross, equivalent to 105 kWh net.

FAST CHARGE

The Nomad is charged via a CCS Combo 2 charging interface, the same as that used for electric vehicles, allowing it to be charged either at a public charging station or from a standard household socket. As with an electric vehicle, two types of charging are available. The first is AC (alternating current) charging, such as from a household socket. In this case, the charging power can range from 3.3 to 20kW, depending on the selected configuration. The second is DC (direct current) fast charging, available only through a fast-charging station. In this case, the maximum charging power is 100kW, enabling a charge from 10% to 90% in about one hour, making the Nomad 110.30 the solution with the shortest charging time in its category. The various charging times are detailed in the table below.

RUN TIME

Average load power	5kW	10kW	15kW	20kW	25kW	30kW
Run time	21h00	10h30	7h00	5h15	4h15	3h30

0 TO 100% CHARGING TIMES

Source	Single 16A	Single 32A	Three16A	Three 32A	DC Fast
Charging Time	33h00	16h30	11h00	5h30	1h10

INVERTER

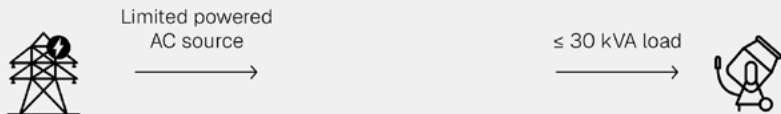
The inverter built into the Nomad 110.30 is available in both single-phase and three-phase configuration, offering a continuous power output of 30kVA. If needed, the power can be increased to 37.5kVA for up to 15 seconds. The front sockets are available in either Maréchal or Legrand type.

DISPLAYS

Large-character digital displays were specifically designed by Ian Motion for the Nomad 110.30. Made from aluminium and incorporating tempered and laminated glass, they are highly resistant to impacts and crushing. Their size and brightness make them easy to read in all light conditions.

POWER BUFFER MODE

Using the Nomad 110.30 as a power buffer allows you to fully harness the potential of a limited power source, continuously recharging the battery while benefiting from the Nomad's power output.



OPTIONS

The Nomad 110.30 is also connected and geolocated, allowing the Nomad's manager to benefit from consumption data reports and providing geographical tracking. The reporting of data also enables a quick and efficient customer support service. Several options are available:

- An MPPT input to support the Nomad with solar panels
- A transport platform
- A steel skid and lifting hook

The Nomad 110.30 is CE certified according to the latest standards.



MADE IN FRANCE



SUSTAINABLE & VERSATILE



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NESTOR