

ELECTRICAL MOTOR LVMX30



POWER IN MOTION

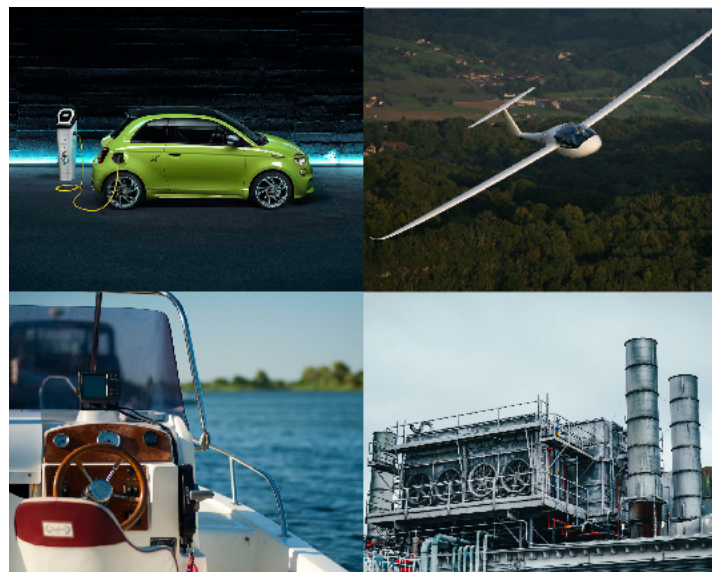
XAP designs and manufactures custom electric motors and magnetic systems, turning the most demanding constraints into reliable, high-performance products.

The LVMX30 motor embodies this expertise, forged in top-level motorsport. Compact (20 kg), it delivers 30 kW of continuous power (peak torque : 120 Nm - design value), and an outstanding 95% efficiency. Its low-voltage design (24–80V) ensures easy integration, while liquid cooling guarantees flawless thermal stability even under extreme conditions.

Versatile and robust, equipped with dual windings and Hall effect sensors, it is compatible with most inverters and achieves its full potential when paired with our XAP LVC30 inverter.

From motorsport to off-road, on-road, marine, and industrial applications, our technologies carry a clear promise: performance and reliability.

With XAP, precision and durability are at the heart of your electric and hybrid mobility projects.



REAL VERSATILE MOTOR

TWO IN ONE:

A unique architecture, controllable by one or two inverters, ensuring redundancy and safety.

PROVEN RELIABILITY:

Performance validated under extreme conditions, with high-efficiency permanent magnets.

COMPACT POWER:

30 kW in just 20 kg (1.5 kW/kg), with variants available from 10 to 60 kW.

ALWAYS UNDER CONTROL:

Optimized liquid cooling for flawless thermal stability.

CONSTANT AND INSTANT TORQUE:

60 Nm available from 1 to 5000 rpm, with minimal torque ripple.

TOTAL VERSATILITY:

Automotive, light aviation, marine, industrial, one motor for multiple worlds.

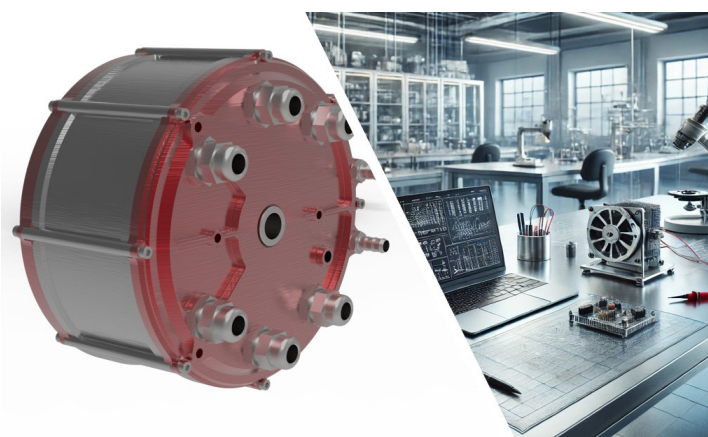
BUILT-IN RELIABILITY:

Two independent 3-phase star windings — higher efficiency, fault tolerance, and propulsion continuity after a single-chain failure.

SMART PLUG & PLAY:

Compatible with most inverters, optimal with the XAP LVC30:

Voltage	DC	600 A > 1 min
24 V	12 kW	14 kW
60 V	30 kW	36 kW
80 V	40 kW	48 kW





► ELECTRICAL SOLUTIONS & POWERTRAIN: **LVMX-30**

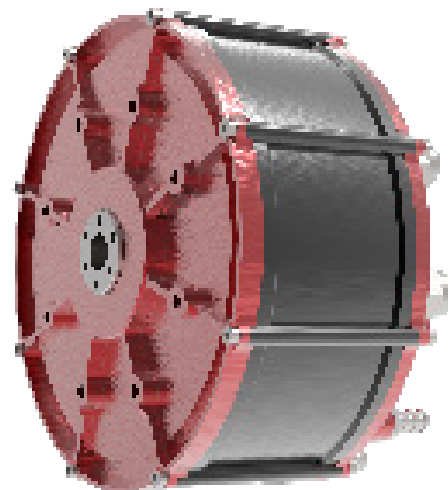
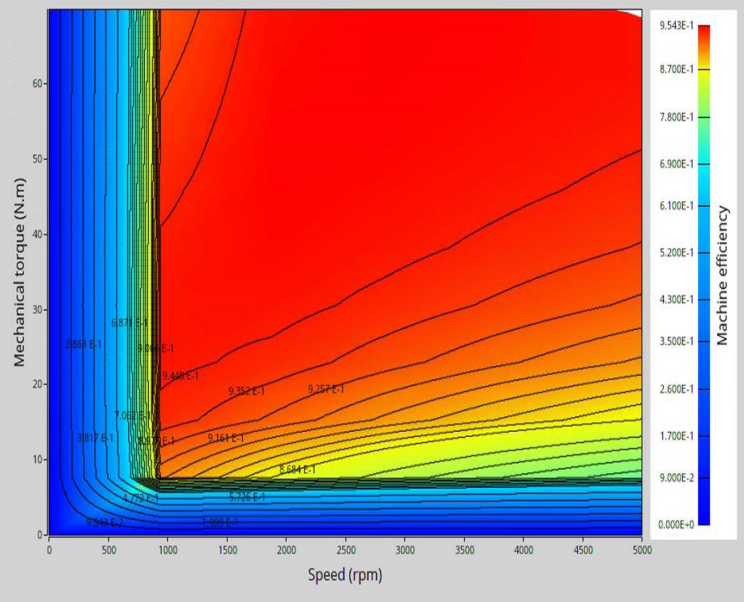
ELECTRICAL SPECIFICATIONS

Nominal Voltage	60 V DC
Voltage range	24 – 80 V DC
Nominal power	30 kW at 5000 rpm
Peak power	60 kW at 60 V — 80 kW at 80 V (short duration)
Continuous torque	60 – 65 Nm at 25°C
Peak torque	120 Nm (design value)
Max speed	5000 rpm
Efficiency	95%
Number of pole pairs	11
Winding configuration	Star; 2 x 3 phases (redundant windings)
Phase inductance	4 μ H per coil
Phase resistance	0,9 m Ω per coil at 100 °C
Magnetic flux	To be specified after validation
Torque constant (kt)	0,2 Nm/A

MECHANICAL SPECIFICATIONS

Outer dimensions	Ø 234 mm × 150 mm (length)
Shaft Diameter	28 mm
Encoder	Digital encoder + Hall-effect sensors
Insulation class	H
Nominal frequency	917 Hz at 5 000 rpm
Cooling	Liquid cooled
Weight	20 Kg
Protection	IP67

Efficiency in torque-speed area



REFERENCES

PF0840

MOTOR - 60V - 30KW