

ELECTRAVIA® designs, develops, manufactures and markets global electrical propulsion systems to equip ultralights, motorgliders, UAV and light aircraft. ELECTRAVIA® masters electronics for controllers and batteries management, propellers design, and has finalized partnerships with motors and batteries manufacturers. The engineering department of the company may implement dedicated solutions for each aircraft.

## DATA SHEET

E-MOTOR GMPE 104 : DC brushed motor

This engine can be used to replace any two strokes engines up to 35 HP

Mass without belt reduction gear : 12 kg (26.7 lb)

Mass with belt reduction gear and propeller flange : 15 kg (33.3 lb)

<i>Technical data</i>	<b>power</b>	<b>efficiency</b>	<b>torque @ motor shaft</b>	<b>current</b>
Peak power (30 s)	26 kW (35 HP)	91%	52 Nm	400 A
Max power (10 mn)	19 kW (26 HP)	92%	40 Nm	300 A
Max continuous	16.5 kW (22 HP)	93%	32 Nm	250 A

Temperature @ brush holder level :

Normal operating range (green zone) : -10°C to 70°C

Emergency operating range (red zone) : 70°C to 90°C

Max temperature : 90°C (194 °F)

Speed : 71 RPM/V @ 10 A and 67 RPM/V @ 400 A

Max motor speed : 6000 RPM

Propeller direction : either clockwise or counter-clockwise

→ ELECTRAVIA® recommends E-PROPS® propellers to get the best propulsion efficiency and the best noiseless performances : see website [www.e-props.fr](http://www.e-props.fr)



CONTROLLER FOR GMPE 104 : DC/DC Converter

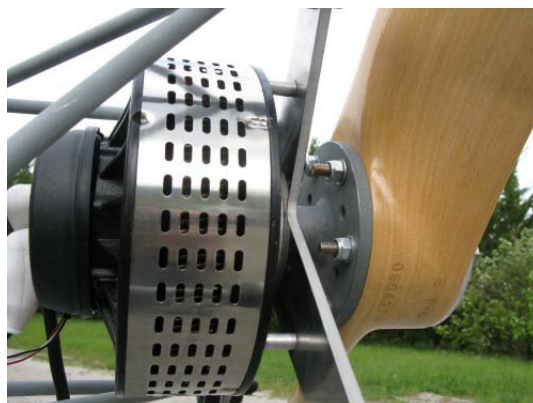
Mass : 1.8 kg (4 lb)

Efficiency : 99 %

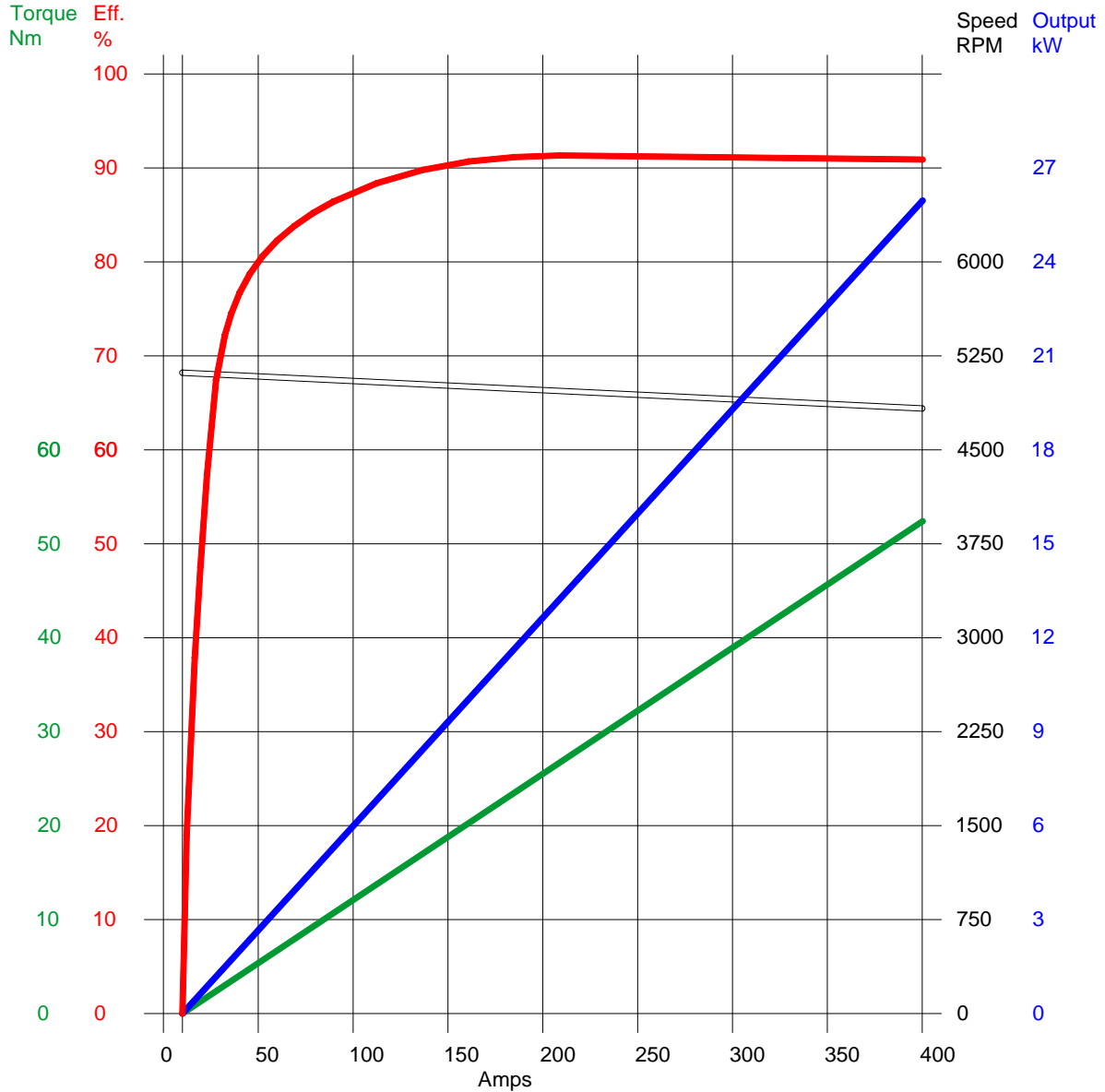
Max current : 500 A

Max Voltage : 90 V

Power control by potentiometer (0-5 kΩ) or Hall sensor (0-5 V)



## GMPE 104 - PERFORMANCES @ 72 V



**▲ WARNING**

**Electrical engine E-MOTOR GMPE 104 is not a certificated aircraft engine.** It has not received any safety or durability testing, and conforms to no aircraft standards. It is for use in experimental, uncertificated aircraft, ultralights, motorgliders, paramotors, and any vehicles only in which an engine failure will not compromise safety.

User assumes all risk of use, and acknowledges by his use that he knows this engine is subject to sudden stoppage.

Never fly an aircraft equipped with this engine in circumstances or in areas, in weather conditions or in altitudes where you have no chance for successful landing after an engine failure.

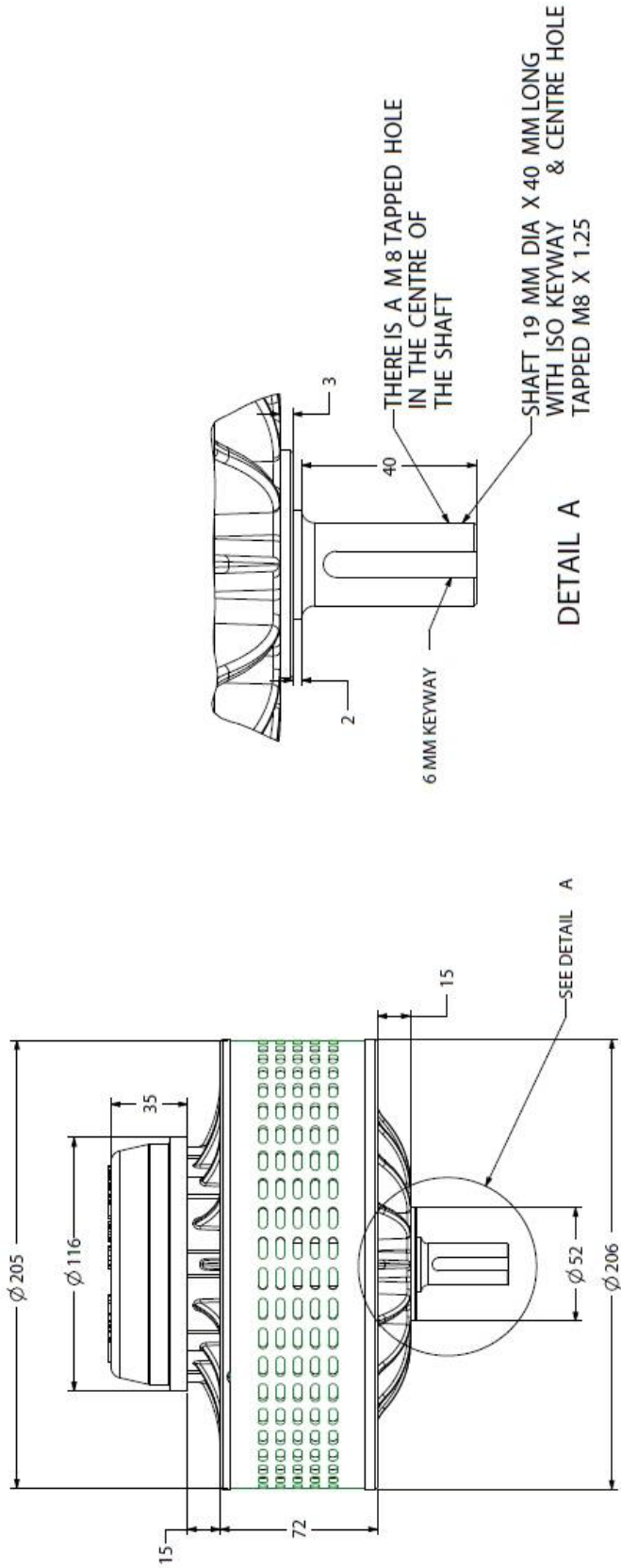
Read very attentively the Operator's Manual before starting the electrical engine. Failure to do so may result in personal injuries including death.

ELECTRAVIA® reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

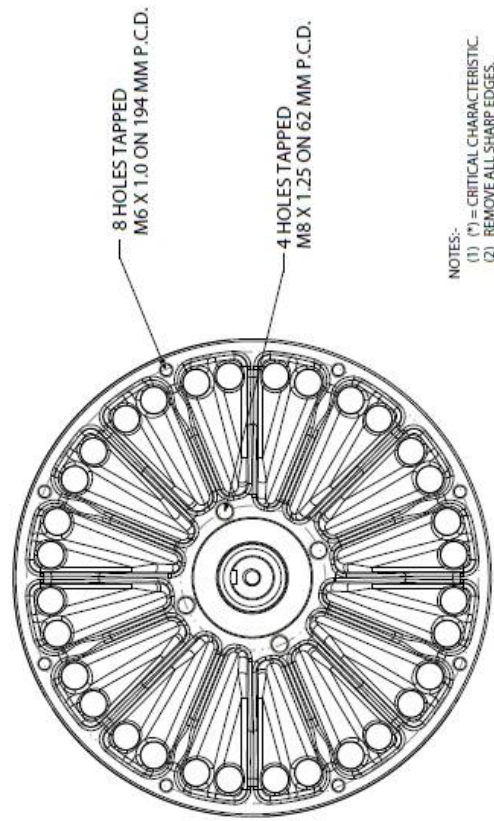
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# GMPE 104 – DIMENSIONS



DETAIL A



NOTES:  
 (1) (\*) = CRITICAL CHARACTERISTIC.  
 (2) REMOVE ALL SHARP EDGES.  
 (3) ALL DIMENSIONS ARE IN mm.