

**Design Fundamentals:**

<b>Battery:</b> (continuous / max. C) ThunderPower 5000SX (22/50C)	# serial: 12 S	# parallel: 1 P	Capacity: 5000 mAh	Resistance: 0.0026 Ohm	Volt per Cell: 3.7 V	Weight per Cell: 122 g	Field Elevation: 100 m ASL	Air Temp: 10 °C	Pressure (QNH): 1020 hPa
<b>Controller:</b> Phönix 110HV	Resistance: 0.001 Ohm	Continuous Current: 110 A	max. Current: 110 A	Weight: 150 g					
<b>Motor:</b> Manufacturer - Type (Kv in rpm) NeuMotors 1527/1.5Y (825)	Kv (w/o torque): 825 rpV	Resistance: 0.012 Ohm	Idle Current: 1.5 A	Limit (up to 20s): 3500 W	Case Length: 100 mm	Weight: 620 g			
<b>Ducted Fan:</b> Schuebeler DS-94 HDT (120mm)	thrust duct for: 100 % FSA	Flight Speed: 50 km/h	Gear: 1.00	<input type="button" value="clear"/>					

**Approx. Values:**

Warning:

\* max. power over the limit of the motor (3500W). Please verify the limits (current, power, rpm) defined by the manufacturer! \*

<b>Battery:</b>	Load 18.4 C	Voltage 41.53 V	Rated Voltage: 44.4 V	Flight Time*: 3.26 min	mixed Flight Time: 5.54 min	Weight: 1464 g
<b>Motor:</b>	max. Current: 92.037 A	Voltage: 41.44 V	Revolutions: 33274 rpm	el. Power (In): 3813.68 W	mech. Power (out): 3649.88 W	Efficiency: 95.7 %
<b>Optimal Efficiency:</b>	Strom: 73.44 A	Voltage: 43.15 V	Revolutions: 34874 rpm	el. Power (In): 3169.15 W	mech. Power (out): 3039.69 W	Efficiency: 95.915 %
<b>Ducted Fan:</b>	Static Thrust: 6940 g =	Thrust in Flight: 68.08 N	Thrust in Flight: 5680 g	Jet Speed: 275 km/h =	76.5 m/s	Revolutions: 33274 rpm
<b>Entire Drive:</b>	Weight: 2457.4 g (Battery + Controller + Motor + 10%)			Fan Efficiency: 1.82 g/W	Efficiency: 72.7 %	

**Important Note:**

Before flight recheck the max. current! If your Current, el. Power or RPM are over the manufacturers limits **your motor, controller and/or battery may take damage!** Thrust reduction due long ducting are **not** considered!

for printing use Landscape format  
\* Flight Time @ Full Power  
\*\* Testdata with reduced accuracy

**Motor Data:**

mech. Power [W], Efficiency [%], wast Power [W],  
Revolutions [rpm], Motor Case Temperature Prediction [°C]

Motor Cooling:  
poor

Power Scale:  
automatic

