

**eCalc** membership starts from \$0.99 - **Sale: one year \$5.49 only**  
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[News](#): Jan. 25th - Motor database updated with Mega ACn 16/7/x & RCTimer FR / new **eCalc Version 6.63** available.

MODELLFLUG  
TIPPS.DE  
PLATZ 1  
Modellflug Portal



**548**

**Restricted Demo Version**  
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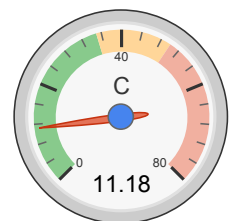
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all data without guarantee - Accuracy: +/-10%

**propCalc - Propeller Calculator**

[News](#) | [Help](#) | Language:

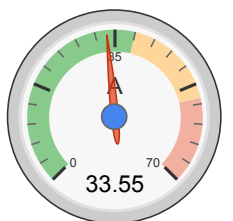
<b>General</b>	Motor Cooling: <input type="text" value="medium"/>	# of Motors: <input type="text" value="1"/> (on same Battery)	Model Weight: <input type="text" value="2000"/> g <input type="text" value="incl. Drive"/> <input type="text" value="70.5"/> oz	Wing Area: <input type="text" value="45"/> dm <sup>2</sup> <input type="text" value="697.5"/> in <sup>2</sup>	Field Elevation <input type="text" value="100"/> m ASL <input type="text" value="328"/> ft ASL	Air Temperature <input type="text" value="25"/> °C <input type="text" value="77"/> °F	Pressure (QNH): <input type="text" value="1013"/> hPa <input type="text" value="29.91"/> inHg	
<b>Battery Cell</b>	Type (Cont. / max. C) - charge state: <input type="text" value="LiPo 3000mAh - 35/50C"/> - <input type="text" value="normal"/>	Configuration: <input type="text" value="4"/> S <input type="text" value="1"/> P	Cell Capacity: <input type="text" value="3000"/> mAh <input type="text" value="3000"/> mAh total	max. discharge: <input type="text" value="85%"/>	Resistance: <input type="text" value="0.004"/> Ohm	Voltage: <input type="text" value="3.7"/> V	C-Rate: <input type="text" value="35"/> C cont. <input type="text" value="50"/> C max	Weight: <input type="text" value="87"/> g <input type="text" value="3.1"/> oz
<b>Controller</b>	Type: <input type="text" value="max 60A"/>	Current: <input type="text" value="60"/> A cont. <input type="text" value="60"/> A max	Resistance: <input type="text" value="0.004"/> Ohm	Weight: <input type="text" value="80"/> g <input type="text" value="2.8"/> oz	Wire extension battery: <input type="text" value="AWG10=5.27mm&lt;sup&gt;2&lt;/sup&gt;"/>	Length: <input type="text" value="100"/> mm <input type="text" value="3.94"/> inch	Wire extension motor: <input type="text" value="AWG10=5.27mm&lt;sup&gt;2&lt;/sup&gt;"/>	Length: <input type="text" value="100"/> mm <input type="text" value="3.94"/> inch
<b>Motor</b>	Manufacturer - Type (Kv): <input type="text" value="E-flite"/> <input type="text" value="Power 46 (670)"/> <input type="text" value="search..."/> <input type="text" value="Prop-Kv-Wizard"/>	KV (w/o torque): <input type="text" value="670"/> rpm/V	no-load Current: <input type="text" value="3.9"/> A @ <input type="text" value="10"/> V	Limit (up to 15s): <input type="text" value="55"/> A	Resistance: <input type="text" value="0.04"/> Ohm	Case Length: <input type="text" value="55"/> mm <input type="text" value="2.17"/> inch	# mag. Poles: <input type="text" value="14"/>	Weight: <input type="text" value="290"/> g <input type="text" value="10.2"/> oz
<b>Propeller</b>	Type - yoke twist: <input type="text" value="Master Airscrew"/> - <input type="text" value="0°"/>	Diameter: <input type="text" value="12"/> inch	Pitch: <input type="text" value="6"/> inch	# Blades: <input type="text" value="2"/>	PConst / TConst: <input type="text" value="1.31"/> / <input type="text" value="1.0"/>	Gear Ratio: <input type="text" value="1"/> : <input type="text" value="1"/>	Flight Speed: <input type="text" value="0"/> km/h <input type="text" value="0"/> mph	<input type="button" value="calculate"/>



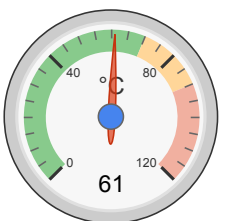
Load:



Mixed Flight Time:



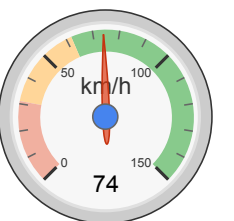
Current:



est. Temperature:



Thrust-Weight:



Pitch Speed:

**Remarks:**

Battery	Motor @ Optimum Efficiency	Motor @ Maximum	Propeller	Total Drive	Airplane
Load: 11.18 C	Current: 36.68 A	Current: 33.55 A	Static Thrust: 1914 g	Drive Weight: 790 g	All-up Weight: 2000 g
Voltage: 14.18 V	Voltage: 13.91 V	Voltage: 13.99 V	67.5 oz	27.9 oz	70.5 oz
Rated Voltage: 14.80 V	Revolutions*: 7944 rpm	Revolutions*: 8087 rpm	Revolutions*: 8087 rpm	Power-Weight: 248 W/kg	Wing Load: 44 g/dm <sup>2</sup>
Energy: 44.4 Wh	electric Power: 510.2 W	electric Power: 469.2 W	Stall Thrust: 1799 g	113 W/lb	14.4 oz/ft <sup>2</sup>
Total Capacity: 3000 mAh	mech. Power: 394.3 W	mech. Power: 361.8 W	63.5 oz	Thrust-Weight: 0.96 : 1	Cubic Wing Load: 6.6
Used Capacity: 2550 mAh	Efficiency: 77.3 %	Efficiency: 77.1 %	Thrust @ 0 km/h: 1914 g	P(in) @ max: 496.5 W	est. Stall Speed: 31 km/h
min. Flight Time: 4.6 min		est. Temperature: 61 °C	Thrust @ 0 mph: 67.5 oz	P(out) @ max: 361.8 W	19 mph

Mixed Flight Time: 7.1 min  
 Weight: 348 g  
 12.3 oz

142 °F

Pitch Speed: 74 km/h  
 46 mph  
 Tip Speed: 465 km/h  
 289 mph  
 specific Thrust: 4.08 g/W  
 0.14 oz/W

Efficiency @ max: 72.9 %

est. Speed (level): 68 km/h  
 42 mph  
 est. Speed (vertical): - km/h  
 - mph  
 est. rate of climb: 5.9 m/s  
 1158 ft/min

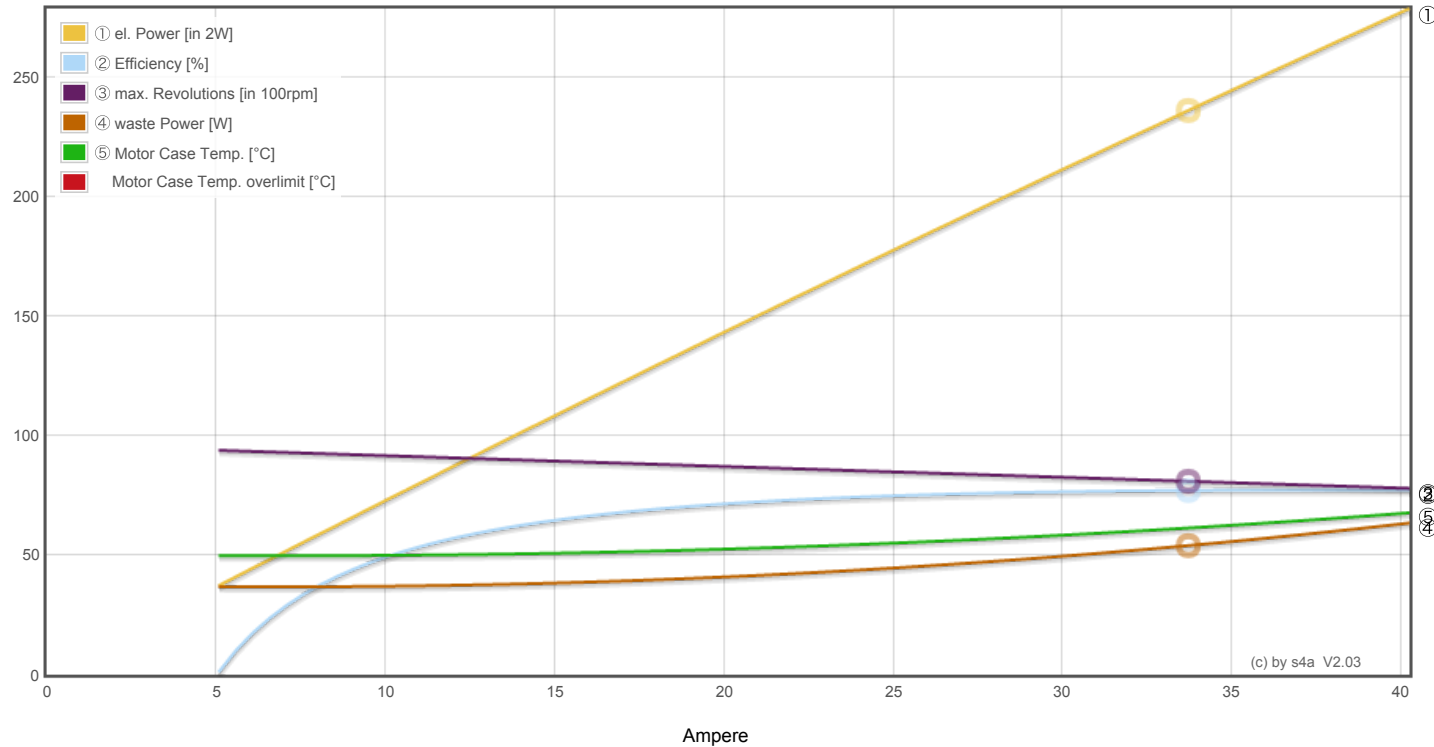
share  <http://www.eCalc.ch...>

**Motor Partial Load**

Propeller rpm	Throttle %	Current (DC) A	Volage (DC) V	el. Power W	Efficiency %	Thrust g	Spec. Thrust g/W	Pitch Speed km/h	Thrust oz	Spec. Thrust oz/W	Pitch Speed mph	Flight Time (85%) min
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for members only...

**Motor Characteristic at Full Throttle**



**Important Note:**

Before flight recheck your max. current! If your Current, el. Power or RPM are over the manufacturers limits your motor, controller and/or battery may take damage! **Verify before flight by measurment!**

for printing use Landscape format  
 \* The manufacturer limitation is NOT monitored  
 \*\* Testdata with reduced accuracy

4514247  
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