## 44'565'911 calculated drives - the most used setup tool

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News (index.htm) Jan 4th: Motor Databese Updated / new eCalc V7.15 with new features (./release.php) - new evCalc V3.00 (./evcalc.php)





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**Restricted Demo Version** 

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all data without guarantee - Accuracy: +/-15%

xcopterCalc - Multicopter Calculator News (index.htm) | Toolbox (index.htm#toolbox) | Easy View (xcoptercalc\_mo

| General      | Model Weight:                         | # of Rotors:     | Frame Size:      | FCU Tilt L  |
|--------------|---------------------------------------|------------------|------------------|-------------|
|              | 1000 g (w/o Drive \$                  | 4                | 400 mm           | no limit    |
|              | 35.3 oz                               | flat \$          | 15.75 inch       |             |
| Battery Cell | Type (Cont. / max. C) - charge state: | Configuration:   | Cell Capacity:   | max. discl  |
|              | LiPo 4500mAh - 65/100C                | 4 S 1 P          | 4500 mAh         | 85% \$      |
|              |                                       |                  | 4500 mAh total   |             |
| Controller   | Type:                                 | Current:         | Resistance:      | Weight:     |
|              | max 80A 💠                             | 80 A cont.       | 0.003 Ohm        | 105 g       |
|              |                                       | 80 A max         |                  | 3.7 o:      |
| Motor        | Manufacturer - Type (Kv) - Cooling:   | KV (w/o torque): | no-load Current: | Limit (up t |
|              | RCTimer                               | 750 rpm/V        | 0.8 A @ 10 V     | 350         |
|              | good \$ search                        | Prop-Kv-Wizard   |                  |             |
| Propeller    | Type - yoke twist:                    | Diameter:        | Pitch:           | # Blades:   |
|              | APC Electric E • - 0° •               | 11 inch          | 4.7 inch         | 2           |
|              |                                       | 279.4 mm         | 119 mm           |             |





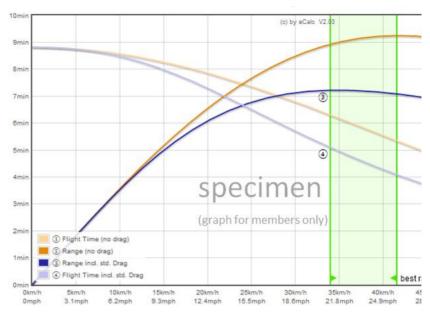
Hover Flight Time:



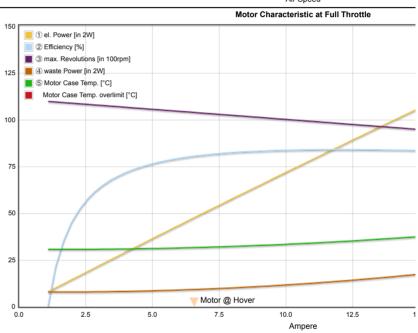


| Battery            |          | Motor @ Optimum Efficiency |          | Motor @ Maximum    |            | Motor @ Hover      |
|--------------------|----------|----------------------------|----------|--------------------|------------|--------------------|
| Load:              | 16.04 C  | Current:                   | 11.74 A  | Current:           | 18.05 A    | Current:           |
| Voltage:           | 14.11 V  | Voltage:                   | 14.31 V  | Voltage:           | 14.04 V    | Voltage:           |
| Rated Voltage:     | 14.80 V  | Revolutions*:              | 9833 rpm | Revolutions*:      | 9151 rpm   | Revolutions*:      |
| Energy:            | 66.6 Wh  | electric Power:            | 167.9 W  | electric Power:    | 253.5 W    | Throttle (log):    |
| Total Capacity:    | 4500 mAh | mech. Power:               | 141.1 W  | mech. Power:       | 209.0 W    | Throttle (linear): |
| Used Capacity:     | 3825 mAh | Efficiency:                | 84.0 %   | Power-Weight:      | 411.2 W/kg | electric Power:    |
| min. Flight Time:  | 3.2 min  |                            |          |                    | 186.5 W/lb | mech. Power:       |
| Mixed Flight Time: | 6.9 min  |                            |          | Efficiency:        | 82.5 %     | Power-Weight:      |
| Hover Flight Time: | 8.7 min  |                            |          | est. Temperature:  | 41 °C      |                    |
| Weight:            | 504 g    |                            |          |                    | 106 °F     | Efficiency:        |
|                    | 17.8 oz  |                            |          |                    |            | est. Temperature   |
|                    |          |                            |          | Wattmeter readings |            |                    |
|                    |          |                            |          | Current:           | 72.2 A     | specific Thrust:   |
|                    |          |                            |          | Voltage:           | 14.11 V    | 2,220 1111000      |
|                    |          |                            |          | Power:             | 1018.7 W   |                    |

Range Estimator



Air Speed



## 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!

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