PCN-关于 MSC 64x20 桨叶升级为 MSC 64x23 桨叶的变更通知-261008

公　　司：深圳市好盈科技股份有限公司
地　　址：深圳市龙岗区宝龙工业城诚信路 8 号亚森创新科技产业园 4 栋
联系电话：0755-89507122
网　　址：http://www.hobbywing.com

深圳市好盈科技股份有限公司

目录

一、变更原因：.....3
二、变更内容：.....3
三、变更声明：.....4

深圳市好盈科技股份有限公司

一、变更原因：

为实现产品性能升级，将原 MSC 64x20 桨叶升级为 MSC 64x23 桨叶。本次升级相关性能验证及程序匹配工作均已完成，现正式发布本 PCN 变更通知。

二、变更内容：

本次变更仅涉及桨叶外观、重量、系统力效及转速响应性能，安装孔位完全一致，不影响整机装配使用。桨叶参数对比如下：

<table>
<tr><th></th><th>MSC 64x20</th><th>MSC 64x23</th></tr>
<tr><td>外观</td><td>哑光</td><td>亮面</td></tr>
<tr><td>重量</td><td>860 g</td><td>1035 ±20g</td></tr>
<tr><td>安装尺寸</td><td>D60-6*M6，中心孔 D20</td><td>D60-6*M6，中心孔 D20</td></tr>
<tr><td>力效</td><td>P50M:6.7 g/w @50kg
P65M:5.8 g/w @65kg
附：P50M 拉力数据表：
<table>
<tr><th>Voltage(V)
工作电压</th><th>Propeller
螺旋桨</th><th>Throttle(%)
油门</th><th>Thrust(g)
拉力</th><th>Current(A)
电流</th><th>Power Input(W)
输入功率</th><th>Speed(RPM)
转速</th><th>Efficiency(g/W)
力效</th><th>Torque (N·m)
扭矩</th><th>Power Output(W)
输出功率</th><th>Motor Temperature(℃)
电机温度</th></tr>
<tr><td rowspan="20">400V</td><td rowspan="20">MSC 64x20</td><td>33%</td><td>20993</td><td>5.5</td><td>2198.4</td><td>1221</td><td>9.5</td><td>14.19</td><td>1814.4</td><td rowspan="20">/</td></tr>
<tr><td>35%</td><td>23866</td><td>6.6</td><td>2624.1</td><td>1300</td><td>9.1</td><td>16.11</td><td>2193.6</td></tr>
<tr><td>37%</td><td>26859</td><td>7.7</td><td>3090.3</td><td>1378</td><td>8.7</td><td>18.12</td><td>2615.1</td></tr>
<tr><td>39%</td><td>29952</td><td>9.0</td><td>3597.5</td><td>1453</td><td>8.3</td><td>20.21</td><td>3074.5</td></tr>
<tr><td>42%</td><td>34743</td><td>11.1</td><td>4435.1</td><td>1562</td><td>7.8</td><td>23.45</td><td>3836.0</td></tr>
<tr><td>45%</td><td>39667</td><td>13.4</td><td>5362.8</td><td>1666</td><td>7.4</td><td>26.81</td><td>4677.6</td></tr>
<tr><td>48%</td><td>44675</td><td>16.0</td><td>6375.5</td><td>1765</td><td>7.0</td><td>30.26</td><td>5592.1</td></tr>
<tr><td>51%</td><td>49724</td><td>18.7</td><td>7465.8</td><td>1858</td><td>6.7</td><td>33.76</td><td>6567.3</td></tr>
<tr><td>54%</td><td>54773</td><td>21.6</td><td>8624.0</td><td>1946</td><td>6.4</td><td>37.28</td><td>7596.1</td></tr>
<tr><td>57%</td><td>59784</td><td>24.6</td><td>9839.3</td><td>2030</td><td>6.1</td><td>40.80</td><td>8671.6</td></tr>
<tr><td>60%</td><td>64722</td><td>27.8</td><td>11100.0</td><td>2109</td><td>5.8</td><td>44.28</td><td>9778.5</td></tr>
<tr><td>63%</td><td>69554</td><td>31.0</td><td>12393.8</td><td>2183</td><td>5.6</td><td>47.70</td><td>10904.0</td></tr>
<tr><td>66%</td><td>74248</td><td>34.3</td><td>13708.6</td><td>2252</td><td>5.4</td><td>51.04</td><td>12035.0</td></tr>
<tr><td>69%</td><td>78769</td><td>37.6</td><td>15031.9</td><td>2316</td><td>5.2</td><td>54.26</td><td>13158.1</td></tr>
<tr><td>72%</td><td>83085</td><td>40.9</td><td>16350.4</td><td>2374</td><td>5.1</td><td>57.34</td><td>14253.3</td></tr>
<tr><td>75%</td><td>87162</td><td>44.2</td><td>17649.6</td><td>2428</td><td>4.9</td><td>60.25</td><td>15318.4</td></tr>
<tr><td>78%</td><td>90961</td><td>47.3</td><td>18912.7</td><td>2476</td><td>4.8</td><td>62.97</td><td>16326.5</td></tr>
<tr><td>81%</td><td>94444</td><td>50.4</td><td>20119.6</td><td>2518</td><td>4.7</td><td>65.47</td><td>17262.1</td></tr>
<tr><td>84%</td><td>97567</td><td>53.2</td><td>21246.1</td><td>2556</td><td>4.6</td><td>67.71</td><td>18123.2</td></tr>
<tr><td>87%</td><td>100282</td><td>55.7</td><td>22263.1</td><td>2588</td><td>4.5</td><td>69.67</td><td>18880.0</td></tr>
<tr><td>90%</td><td>102535</td><td>57.9</td><td>23136.6</td><td>2614</td><td>4.4</td><td>71.30</td><td>19515.1</td></tr>
<tr><td>100%</td><td>105921</td><td>61.3</td><td>24503.3</td><td>2653</td><td>4.3</td><td>73.75</td><td>20487.5</td></tr>
</table>
P65M 拉力数据表：
<table>
<tr><th>Voltage(V)
工作电压</th><th>Propeller
螺旋桨</th><th>Throttle(%)
油门</th><th>Thrust(g)
拉力</th><th>Current(A)
电流</th><th>Power Input(W)
输入功率</th><th>Speed(RPM)
转速</th><th>Efficiency(g/W)
力效</th><th>Torque (N·m)
扭矩</th><th>Power Output(W)
输出功率</th><th>Motor Temperature(℃)
电机温度</th></tr>
<tr><td rowspan="20">400V</td><td rowspan="20">MSC 64x20</td><td>33%</td><td>24300</td><td>7.0</td><td>2801.4</td><td>1306</td><td>8.7</td><td>16.43</td><td>2246.3</td><td rowspan="20">/</td></tr>
<tr><td>35%</td><td>27795</td><td>8.4</td><td>3351.0</td><td>1394</td><td>8.3</td><td>18.74</td><td>2735.8</td></tr>
<tr><td>37%</td><td>31391</td><td>9.9</td><td>3954.7</td><td>1479</td><td>7.9</td><td>21.14</td><td>3274.2</td></tr>
<tr><td>39%</td><td>35079</td><td>11.5</td><td>4612.3</td><td>1562</td><td>7.6</td><td>23.62</td><td>3863.1</td></tr>
<tr><td>42%</td><td>40767</td><td>14.3</td><td>5697.5</td><td>1681</td><td>7.2</td><td>27.46</td><td>4834.4</td></tr>
<tr><td>45%</td><td>46611</td><td>17.3</td><td>6896.7</td><td>1795</td><td>6.8</td><td>31.44</td><td>5910.2</td></tr>
<tr><td>48%</td><td>52575</td><td>20.5</td><td>8202.7</td><td>1903</td><td>6.4</td><td>35.53</td><td>7079.8</td></tr>
<tr><td>51%</td><td>58616</td><td>24.0</td><td>9606.8</td><td>2005</td><td>6.1</td><td>39.69</td><td>8332.8</td></tr>
<tr><td>54%</td><td>64689</td><td>27.8</td><td>11098.2</td><td>2102</td><td>5.8</td><td>43.90</td><td>9661.6</td></tr>
<tr><td>57%</td><td>70746</td><td>31.7</td><td>12664.8</td><td>2194</td><td>5.6</td><td>48.11</td><td>11053.4</td></tr>
<tr><td>60%</td><td>76738</td><td>35.8</td><td>14292.6</td><td>2280</td><td>5.4</td><td>52.31</td><td>12488.7</td></tr>
<tr><td>63%</td><td>82613</td><td>40.0</td><td>15965.8</td><td>2361</td><td>5.2</td><td>56.45</td><td>13956.3</td></tr>
<tr><td>66%</td><td>88318</td><td>44.2</td><td>17666.2</td><td>2436</td><td>5.0</td><td>60.50</td><td>15432.8</td></tr>
<tr><td>69%</td><td>93800</td><td>48.5</td><td>19373.6</td><td>2505</td><td>4.8</td><td>64.42</td><td>16898.4</td></tr>
<tr><td>72%</td><td>99009</td><td>52.7</td><td>21064.9</td><td>2568</td><td>4.7</td><td>68.18</td><td>18332.5</td></tr>
<tr><td>75%</td><td>103891</td><td>56.9</td><td>22714.8</td><td>2626</td><td>4.6</td><td>71.72</td><td>19721.1</td></tr>
<tr><td>78%</td><td>108398</td><td>60.8</td><td>24295.6</td><td>2677</td><td>4.5</td><td>75.01</td><td>21027.6</td></tr>
<tr><td>81%</td><td>112481</td><td>64.5</td><td>25777.9</td><td>2722</td><td>4.4</td><td>78.02</td><td>22237.6</td></tr>
<tr><td>84%</td><td>116097</td><td>67.9</td><td>27131.7</td><td>2761</td><td>4.3</td><td>80.70</td><td>23329.9</td></tr>
<tr><td>87%</td><td>119204</td><td>70.9</td><td>28326.9</td><td>2794</td><td>4.2</td><td>83.01</td><td>24284.8</td></tr>
<tr><td>90%</td><td>121765</td><td>73.4</td><td>29334.9</td><td>2821</td><td>4.2</td><td>84.92</td><td>25084.4</td></tr>
<tr><td>100%</td><td>125984</td><td>77.7</td><td>31041.4</td><td>2864</td><td>4.1</td><td>88.08</td><td>26415.6</td></tr>
</table></td><td>力效略微提升
P50M:7.0 g/w@50kg
P65M:6.2 g/w@65kg
附：P50M 拉力数据表：
<table>
<tr><th>Voltage(V)
工作电压</th><th>Propeller
螺旋桨</th><th>Throttle(%)
油门</th><th>Thrust(g)
拉力</th><th>Current(A)
电流</th><th>Power Input(W)
输入功率</th><th>Speed(RPM)
转速</th><th>Efficiency(g/W)
力效</th><th>Torque (N·m)
扭矩</th><th>Power Output(W)
输出功率</th><th>Motor Temperature(℃)
电机温度</th></tr>
<tr><td rowspan="20">400V</td><td rowspan="20">MSC 64x23</td><td>33%</td><td>20702</td><td>5.2</td><td>2090.1</td><td>1223</td><td>9.9</td><td>13.18</td><td>1687.8</td><td rowspan="20">/</td></tr>
<tr><td>35%</td><td>23642</td><td>6.2</td><td>2494.4</td><td>1301</td><td>9.5</td><td>15.04</td><td>2048.6</td></tr>
<tr><td>37%</td><td>26677</td><td>7.3</td><td>2938.9</td><td>1378</td><td>9.1</td><td>16.94</td><td>2444.6</td></tr>
<tr><td>39%</td><td>29789</td><td>8.6</td><td>3422.3</td><td>1454</td><td>8.7</td><td>18.89</td><td>2876.1</td></tr>
<tr><td>42%</td><td>34575</td><td>10.5</td><td>4217.0</td><td>1564</td><td>8.2</td><td>21.89</td><td>3585.0</td></tr>
<tr><td>45%</td><td>39462</td><td>12.7</td><td>5089.5</td><td>1669</td><td>7.8</td><td>24.98</td><td>4364.8</td></tr>
<tr><td>48%</td><td>44410</td><td>15.1</td><td>6032.5</td><td>1768</td><td>7.4</td><td>28.13</td><td>5207.8</td></tr>
<tr><td>51%</td><td>49383</td><td>17.6</td><td>7038.1</td><td>1862</td><td>7.0</td><td>31.33</td><td>6109.2</td></tr>
<tr><td>54%</td><td>54351</td><td>20.2</td><td>8097.8</td><td>1949</td><td>6.7</td><td>34.56</td><td>7053.1</td></tr>
<tr><td>57%</td><td>59280</td><td>23.0</td><td>9203.3</td><td>2032</td><td>6.4</td><td>37.78</td><td>8038.6</td></tr>
<tr><td>60%</td><td>64143</td><td>25.9</td><td>10345.6</td><td>2109</td><td>6.2</td><td>40.96</td><td>9046.4</td></tr>
<tr><td>63%</td><td>68909</td><td>28.8</td><td>11515.4</td><td>2182</td><td>6.0</td><td>44.08</td><td>10072.0</td></tr>
<tr><td>66%</td><td>73548</td><td>31.7</td><td>12702.7</td><td>2250</td><td>5.8</td><td>47.11</td><td>11098.9</td></tr>
<tr><td>69%</td><td>78030</td><td>34.7</td><td>13896.3</td><td>2314</td><td>5.6</td><td>50.02</td><td>12120.2</td></tr>
<tr><td>72%</td><td>82320</td><td>37.7</td><td>15083.2</td><td>2374</td><td>5.5</td><td>52.80</td><td>13125.1</td></tr>
<tr><td>75%</td><td>86380</td><td>40.6</td><td>16248.6</td><td>2430</td><td>5.3</td><td>55.43</td><td>14103.1</td></tr>
<tr><td>78%</td><td>90170</td><td>43.4</td><td>17374.7</td><td>2480</td><td>5.2</td><td>57.88</td><td>15031.5</td></tr>
<tr><td>81%</td><td>93642</td><td>46.1</td><td>18440.6</td><td>2525</td><td>5.1</td><td>60.15</td><td>15903.9</td></tr>
<tr><td>84%</td><td>96744</td><td>48.5</td><td>19421.9</td><td>2564</td><td>5.0</td><td>62.20</td><td>16699.8</td></tr>
<tr><td>87%</td><td>99416</td><td>50.7</td><td>20290.2</td><td>2597</td><td>4.9</td><td>63.99</td><td>17402.2</td></tr>
<tr><td>90%</td><td>101591</td><td>52.5</td><td>21013.4</td><td>2622</td><td>4.8</td><td>65.48</td><td>17977.2</td></tr>
<tr><td>100%</td><td>104355</td><td>54.9</td><td>21954.2</td><td>2653</td><td>4.8</td><td>67.40</td><td>18725.1</td></tr>
</table>
P65M 拉力数据表：
<table>
<tr><th>Voltage(V)
工作电压</th><th>Propeller
螺旋桨</th><th>Throttle(%)
油门</th><th>Thrust(g)
拉力</th><th>Current(A)
电流</th><th>Power Input(W)
输入功率</th><th>Speed(RPM)
转速</th><th>Efficiency(g/W)
力效</th><th>Torque (N·m)
扭矩</th><th>Power Output(W)
输出功率</th><th>Motor Temperature(℃)
电机温度</th></tr>
<tr><td rowspan="20">400V</td><td rowspan="20">MSC 64x23</td><td>33%</td><td>24005</td><td>6.6</td><td>2639.4</td><td>1308</td><td>9.1</td><td>15.14</td><td>2073.1</td><td rowspan="20">/</td></tr>
<tr><td>35%</td><td>27452</td><td>7.9</td><td>3143.0</td><td>1394</td><td>8.7</td><td>17.28</td><td>2521.9</td></tr>
<tr><td>37%</td><td>31003</td><td>9.3</td><td>3713.7</td><td>1479</td><td>8.3</td><td>19.52</td><td>3023.5</td></tr>
<tr><td>39%</td><td>34651</td><td>10.9</td><td>4343.9</td><td>1562</td><td>8.0</td><td>21.85</td><td>3574.5</td></tr>
<tr><td>42%</td><td>40284</td><td>13.5</td><td>5384.6</td><td>1683</td><td>7.5</td><td>25.47</td><td>4488.9</td></tr>
<tr><td>45%</td><td>46077</td><td>16.3</td><td>6520.9</td><td>1798</td><td>7.1</td><td>29.19</td><td>5495.1</td></tr>
<tr><td>48%</td><td>51988</td><td>19.3</td><td>7736.8</td><td>1907</td><td>6.7</td><td>32.96</td><td>6581.2</td></tr>
<tr><td>51%</td><td>57972</td><td>22.6</td><td>9023.2</td><td>2009</td><td>6.4</td><td>36.76</td><td>7732.3</td></tr>
<tr><td>54%</td><td>63981</td><td>25.9</td><td>10376.1</td><td>2105</td><td>6.2</td><td>40.57</td><td>8941.8</td></tr>
<tr><td>57%</td><td>69964</td><td>29.5</td><td>11794.6</td><td>2195</td><td>5.9</td><td>44.38</td><td>10200.6</td></tr>
<tr><td>60%</td><td>75870</td><td>33.2</td><td>13277.0</td><td>2280</td><td>5.7</td><td>48.19</td><td>11504.8</td></tr>
<tr><td>63%</td><td>81645</td><td>37.0</td><td>14817.0</td><td>2360</td><td>5.5</td><td>51.98</td><td>12844.4</td></tr>
<tr><td>66%</td><td>87237</td><td>41.0</td><td>16401.1</td><td>2436</td><td>5.3</td><td>55.72</td><td>14212.0</td></tr>
<tr><td>69%</td><td>92597</td><td>45.0</td><td>18007.0</td><td>2506</td><td>5.1</td><td>59.37</td><td>15578.8</td></tr>
<tr><td>72%</td><td>97675</td><td>49.0</td><td>19604.4</td><td>2571</td><td>5.0</td><td>62.88</td><td>16928.3</td></tr>
<tr><td>75%</td><td>102426</td><td>52.9</td><td>21157.3</td><td>2630</td><td>4.8</td><td>66.19</td><td>18228.7</td></tr>
<tr><td>78%</td><td>106808</td><td>56.6</td><td>22627.9</td><td>2683</td><td>4.7</td><td>69.24</td><td>19453.2</td></tr>
<tr><td>81%</td><td>110783</td><td>59.9</td><td>23980.8</td><td>2728</td><td>4.6</td><td>71.98</td><td>20561.6</td></tr>
<tr><td>84%</td><td>114319</td><td>63.0</td><td>25186.8</td><td>2766</td><td>4.5</td><td>74.37</td><td>21538.8</td></tr>
<tr><td>87%</td><td>117392</td><td>65.5</td><td>26225.9</td><td>2796</td><td>4.5</td><td>76.38</td><td>22361.5</td></tr>
<tr><td>90%</td><td>119983</td><td>67.7</td><td>27087.5</td><td>2820</td><td>4.4</td><td>78.01</td><td>23036.6</td></tr>
<tr><td>100%</td><td>125077</td><td>71.8</td><td>28713.8</td><td>2860</td><td>4.4</td><td>81.01</td><td>24261.2</td></tr>
</table></td></tr>
</table>

深圳市好盈科技股份有限公司

响应速度	转速响应大幅优化，响应时间缩短 20%以上；转速响应时间如图所示

油门区间	转速响应时间			
	P50M-6423	P50M-6420	P65M-6423	P65M-6420
1180us~1850us	470ms	770ms	640ms	810ms
1850us~1180us	510ms	1050ms	620ms	1200ms
1180us~1600us	410ms	580ms	490ms	750ms
1600us~1850us	300ms	340ms	630ms	560ms
1850us~1600us	290ms	350ms	570ms	780ms
1600us~1180us	480ms	990ms	550ms	1170ms
1350us~1750us	430ms	490ms	450ms	810ms
1750us~1350us	410ms	500ms	510ms	920ms
1180us~1940us	540ms	745ms	710ms	1040ms
1940us~1180us	520ms	1050ms	640ms	1380ms

三、变更声明：

1、本次变更为已通过性能测试与程序兼容性验证，不影响终端产品使用性能与可靠性；
2、2026 年 09 月 28 日前已生产、入库、在途及已下单未交付订单，仍按原规格 MSC 64x20 交付；
3、自 2026 年 09 月 28 日起，新订单统一采用 MSC 64x23 桨叶；
4、MSC 64x20 与 MSC 64x23 桨叶完全兼容，可直接替换，客户端无需做任何适配调整；
5、原有的机型上新旧桨叶不可混用。

注意事项：最终解释权归深圳市好盈科技股份有限公司所有。

……以下空白……

深圳市好盈科技股份有限公司