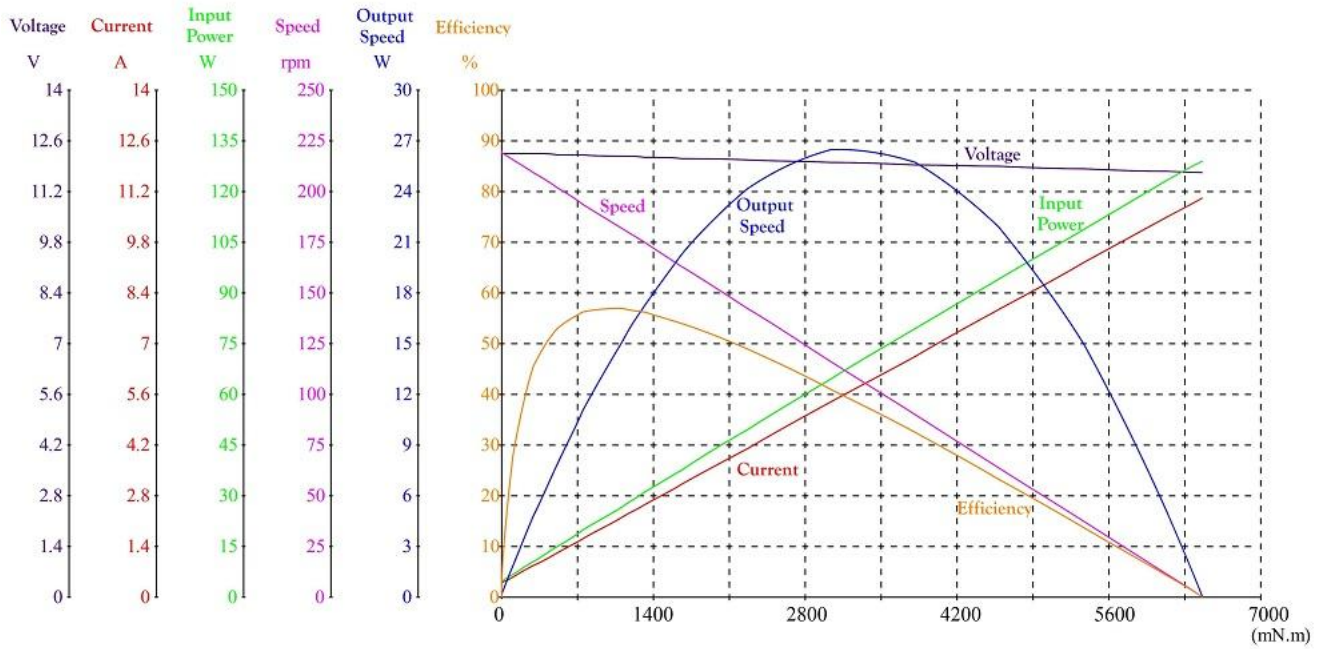


# Orange HD Planetary Gear DC Motor

## Test Report

|         |                      |
|---------|----------------------|
| Voltage | 24V                  |
| Type    | PG36BL36249000-26.9K |
| Number  |                      |



| Specifications         | Voltage | Current | Input Power | Torque | Speed | Output Power | Effc. | Time  |
|------------------------|---------|---------|-------------|--------|-------|--------------|-------|-------|
|                        | V       | A       | W           | mN.m   | rpm   | W            | %     | S     |
| No Load                | 24.05   | 0.376   | 9.042       | 0.0    | 334.4 | 0.000        | 0.0   | 0.000 |
| Max Efficiency Point   | 23.97   | 2.147   | 51.46       | 1008.6 | 279.8 | 29.55        | 57.4  | 36.51 |
| Max Output Power Point | 23.81   | 5.619   | 133.8       | 2986.1 | 172.8 | 54.01        | 40.4  | 36.51 |
| Maximum Torque Point   | 23.54   | 11.22   | 264.2       | 6176.6 | 0.0   | 0.000        | 0.0   | 0.000 |
| End Point              | 23.54   | 11.22   | 264.2       | 6176.6 | 0.0   | 0.000        | 0.0   | 0.000 |

| Spec. | Voltage | Current | Input Power | Torque | Speed | Output Power | Efficiency | Time  |
|-------|---------|---------|-------------|--------|-------|--------------|------------|-------|
|       | V       | A       | W           | mN.m   | rpm   | W            | %          | S     |
| 1     | 24.05   | 0.376   | 9.042       | 0.0    | 334.4 | 0.000        | 0.0        | 0.000 |
| 2     | 24.05   | 0.383   | 9.202       | 3.8    | 334.2 | 0.133        | 1.4        | 0.000 |
| 3     | 24.05   | 0.383   | 9.202       | 3.8    | 334.2 | 0.133        | 1.4        | 2.028 |
| 4     | 24.05   | 0.383   | 9.202       | 3.8    | 334.2 | 0.133        | 1.4        | 3.042 |
| 5     | 24.05   | 0.383   | 9.206       | 3.9    | 334.2 | 0.136        | 1.5        | 4.056 |
| 6     | 24.05   | 0.382   | 9.193       | 3.6    | 334.2 | 0.126        | 1.4        | 5.070 |
| 7     | 24.05   | 0.382   | 9.189       | 3.5    | 334.3 | 0.122        | 1.3        | 6.084 |
| 8     | 24.05   | 0.382   | 9.185       | 3.4    | 334.3 | 0.119        | 1.3        | 7.098 |
| 9     | 24.05   | 0.382   | 9.193       | 3.6    | 334.2 | 0.126        | 1.4        | 8.112 |
| 10    | 24.05   | 0.382   | 9.185       | 3.4    | 334.3 | 0.119        | 1.3        | 9.126 |
| 11    | 24.05   | 0.387   | 9.307       | 6.3    | 334.1 | 0.220        | 2.4        | 10.14 |
| 12    | 24.05   | 0.399   | 9.586       | 12.9   | 333.7 | 0.451        | 4.7        | 11.15 |
| 13    | 24.05   | 0.413   | 9.928       | 21.0   | 333.3 | 0.733        | 7.4        | 12.17 |
| 14    | 24.05   | 0.437   | 10.50       | 34.5   | 332.6 | 1.201        | 11.4       | 13.18 |
| 15    | 24.05   | 0.468   | 11.26       | 52.6   | 331.6 | 1.826        | 16.2       | 14.20 |
| 16    | 24.04   | 0.509   | 12.23       | 75.5   | 330.4 | 2.611        | 21.4       | 15.21 |
| 17    | 24.04   | 0.543   | 13.05       | 95.1   | 329.3 | 3.279        | 25.1       | 16.22 |
| 18    | 24.04   | 0.594   | 14.29       | 124.4  | 327.7 | 4.268        | 29.9       | 17.24 |
| 19    | 24.04   | 0.654   | 15.71       | 158.2  | 325.9 | 5.398        | 34.3       | 18.25 |
| 20    | 24.03   | 0.717   | 17.24       | 194.4  | 323.9 | 6.593        | 38.2       | 19.27 |
| 21    | 24.03   | 0.785   | 18.87       | 233.2  | 321.8 | 7.857        | 41.6       | 20.28 |
| 22    | 24.03   | 0.841   | 20.20       | 264.6  | 320.1 | 8.868        | 43.9       | 21.29 |
| 23    | 24.03   | 0.916   | 22.02       | 307.8  | 317.8 | 10.24        | 46.5       | 22.31 |
| 24    | 24.02   | 0.993   | 23.86       | 351.6  | 315.4 | 11.61        | 48.7       | 23.32 |
| 25    | 24.02   | 1.075   | 25.82       | 398.2  | 312.9 | 13.04        | 50.5       | 24.34 |
| 26    | 24.01   | 1.137   | 27.31       | 433.6  | 311.0 | 14.12        | 51.7       | 25.35 |
| 27    | 24.01   | 1.219   | 29.26       | 480.0  | 308.5 | 15.50        | 53.0       | 26.37 |
| 28    | 24.01   | 1.303   | 31.28       | 527.9  | 305.9 | 16.91        | 54.0       | 27.38 |
| 29    | 24.00   | 1.389   | 33.33       | 576.7  | 303.2 | 18.31        | 54.9       | 28.39 |
| 30    | 24.00   | 1.476   | 35.42       | 626.5  | 300.5 | 19.71        | 55.6       | 29.41 |
| 31    | 24.00   | 1.545   | 37.06       | 665.5  | 298.4 | 20.79        | 56.1       | 30.42 |
| 32    | 23.99   | 1.640   | 39.33       | 719.6  | 295.5 | 22.26        | 56.6       | 31.44 |
| 33    | 23.98   | 1.792   | 42.97       | 806.3  | 290.8 | 24.55        | 57.1       | 32.45 |
| 34    | 23.98   | 1.882   | 45.13       | 857.7  | 288.0 | 25.86        | 57.3       | 33.46 |
| 35    | 23.98   | 1.896   | 45.45       | 865.4  | 287.6 | 26.06        | 57.3       | 34.48 |
| 36    | 23.98   | 1.986   | 47.62       | 917.0  | 284.8 | 27.34        | 57.4       | 35.49 |
| 37    | 23.97   | 2.147   | 51.46       | 1008.6 | 279.8 | 29.55        | 57.4       | 36.51 |
| 38    | 23.95   | 2.581   | 61.81       | 1255.8 | 266.4 | 35.03        | 56.7       | 36.51 |
| 39    | 23.93   | 3.015   | 72.14       | 1503.0 | 253.1 | 39.82        | 55.2       | 36.51 |
| 40    | 23.91   | 3.449   | 82.46       | 1750.2 | 239.7 | 43.92        | 53.3       | 36.51 |
| 41    | 23.89   | 3.883   | 92.75       | 1997.4 | 226.3 | 47.32        | 51.0       | 36.51 |
| 42    | 23.87   | 4.317   | 103.0       | 2244.5 | 212.9 | 50.03        | 48.6       | 36.51 |

|    |       |       |       |        |       |       |      |       |
|----|-------|-------|-------|--------|-------|-------|------|-------|
| 43 | 23.85 | 4.751 | 113.3 | 2491.7 | 199.5 | 52.05 | 45.9 | 36.51 |
| 44 | 23.83 | 5.185 | 123.5 | 2738.9 | 186.1 | 53.38 | 43.2 | 36.51 |
| 45 | 23.81 | 5.619 | 133.8 | 2986.1 | 172.8 | 54.01 | 40.4 | 36.51 |
| 46 | 23.78 | 6.053 | 144.0 | 3233.3 | 159.4 | 53.95 | 37.5 | 36.51 |
| 47 | 23.76 | 6.487 | 154.2 | 3480.5 | 146.0 | 53.20 | 34.5 | 36.51 |
| 48 | 23.74 | 6.921 | 164.3 | 3727.7 | 132.6 | 51.75 | 31.5 | 36.51 |
| 49 | 23.72 | 7.356 | 174.5 | 3974.9 | 119.2 | 49.61 | 28.4 | 36.51 |
| 50 | 23.70 | 7.790 | 184.6 | 4222.1 | 105.8 | 46.78 | 25.3 | 36.51 |
| 51 | 23.68 | 8.224 | 194.8 | 4469.3 | 92.4  | 43.26 | 22.2 | 36.51 |
| 52 | 23.66 | 8.658 | 204.9 | 4716.4 | 79.1  | 39.04 | 19.1 | 36.51 |
| 53 | 23.64 | 9.092 | 215.0 | 4963.6 | 65.7  | 34.13 | 15.9 | 36.51 |
| 54 | 23.62 | 9.526 | 225.0 | 5210.8 | 52.3  | 28.53 | 12.7 | 36.51 |
| 55 | 23.60 | 9.960 | 235.1 | 5458.0 | 38.9  | 22.24 | 9.5  | 36.51 |
| 56 | 23.58 | 10.39 | 245.1 | 5705.2 | 25.5  | 15.25 | 6.2  | 36.51 |
| 57 | 23.56 | 10.83 | 255.1 | 5952.4 | 12.1  | 7.568 | 3.0  | 36.51 |
| 58 | 23.54 | 11.22 | 264.2 | 6176.6 | 0.0   | 0.000 | 0.0  | 0.000 |