

## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **30.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 1,973.4 [RPM]    lo: 2.9 [A]    kv: 66.5 [RPM/V]    kn: -7.46 [RPM/A]    kT: 16.08 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 30.0           | 10.0           | 1,952.9        | 300.0              | 235.0               | 114.9           | 78.33                          |
| 29.9           | 13.0           | 1,922.9        | 388.7              | 328.4               | 163.1           | 84.49                          |
| 29.9           | 16.0           | 1,893.6        | 478.4              | 419.0               | 211.3           | 87.58                          |
| 29.9           | 19.0           | 1,865.1        | 568.1              | 507.0               | 259.6           | 89.25                          |
| 29.9           | 22.0           | 1,837.3        | 657.8              | 592.2               | 307.8           | 90.03                          |
| 29.9           | 25.0           | 1,810.1        | 747.5              | 674.8               | 356.0           | 90.28                          |
| 29.9           | 28.0           | 1,783.6        | 837.2              | 755.1               | 404.3           | 90.20                          |
| 29.9           | 31.0           | 1,757.7        | 926.9              | 832.9               | 452.5           | 89.86                          |
| 29.8           | 34.0           | 1,732.4        | 1,013.2            | 908.4               | 500.7           | 89.65                          |
| 29.8           | 37.0           | 1,707.6        | 1,102.6            | 981.7               | 549.0           | 89.04                          |
| 29.8           | 40.0           | 1,683.4        | 1,192.0            | 1,052.8             | 597.2           | 88.32                          |
| 29.8           | 43.0           | 1,659.6        | 1,281.4            | 1,121.7             | 645.4           | 87.53                          |
| 29.8           | 46.0           | 1,636.3        | 1,370.8            | 1,188.7             | 693.7           | 86.71                          |
| 29.8           | 49.0           | 1,613.4        | 1,460.2            | 1,253.5             | 741.9           | 85.84                          |
| 29.8           | 52.0           | 1,590.8        | 1,549.6            | 1,316.2             | 790.1           | 84.94                          |
| 29.7           | 55.0           | 1,568.7        | 1,633.5            | 1,377.3             | 838.4           | 84.31                          |
| 29.7           | 58.0           | 1,546.8        | 1,722.6            | 1,436.1             | 886.6           | 83.37                          |
| 29.7           | 61.0           | 1,525.3        | 1,811.7            | 1,493.1             | 934.8           | 82.42                          |
| 29.7           | 64.0           | 1,504.0        | 1,900.8            | 1,548.4             | 983.1           | 81.46                          |
| 29.7           | 67.0           | 1,482.9        | 1,989.9            | 1,601.5             | 1,031.3         | 80.48                          |
| 29.7           | 70.0           | 1,462.1        | 2,079.0            | 1,652.8             | 1,079.5         | 79.50                          |
| 29.7           | 73.0           | 1,441.4        | 2,168.1            | 1,702.3             | 1,127.8         | 78.52                          |
| 29.6           | 76.0           | 1,420.8        | 2,249.6            | 1,749.7             | 1,176.0         | 77.78                          |
| 29.6           | 79.0           | 1,400.4        | 2,338.4            | 1,795.3             | 1,224.2         | 76.77                          |
| 29.6           | 82.0           | 1,380.0        | 2,427.2            | 1,838.9             | 1,272.5         | 75.76                          |
| 29.6           | 85.0           | 1,359.6        | 2,516.0            | 1,880.4             | 1,320.7         | 74.74                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 29.6           | 88.0           | 1,339.3        | 2,604.8            | 1,919.9             | 1,368.9         | 73.71                          |
| 29.6           | 91.0           | 1,318.9        | 2,693.6            | 1,957.4             | 1,417.2         | 72.67                          |
| 29.6           | 94.0           | 1,298.5        | 2,782.4            | 1,992.6             | 1,465.4         | 71.62                          |
| 29.5           | 97.0           | 1,278.0        | 2,861.5            | 2,025.7             | 1,513.6         | 70.79                          |
| 29.5           | 100.0          | 1,257.3        | 2,950.0            | 2,056.5             | 1,561.9         | 69.71                          |
| 29.5           | 103.0          | 1,236.6        | 3,038.5            | 2,085.0             | 1,610.1         | 68.62                          |
| 29.5           | 106.0          | 1,215.6        | 3,127.0            | 2,111.0             | 1,658.3         | 67.51                          |
| 29.5           | 109.0          | 1,194.4        | 3,215.5            | 2,134.6             | 1,706.6         | 66.38                          |
| 29.5           | 112.0          | 1,173.0        | 3,304.0            | 2,155.5             | 1,754.8         | 65.24                          |
| 29.4           | 115.0          | 1,151.3        | 3,381.0            | 2,173.8             | 1,803.0         | 64.29                          |
| 29.4           | 118.0          | 1,129.3        | 3,469.2            | 2,189.3             | 1,851.3         | 63.11                          |
| 29.4           | 121.0          | 1,107.0        | 3,557.4            | 2,202.0             | 1,899.5         | 61.90                          |
| 29.4           | 124.0          | 1,084.3        | 3,645.6            | 2,211.6             | 1,947.7         | 60.66                          |
| 29.4           | 127.0          | 1,061.2        | 3,733.8            | 2,218.1             | 1,996.0         | 59.41                          |
| 29.4           | 130.0          | 1,037.6        | 3,822.0            | 2,221.2             | 2,044.2         | 58.12                          |
| 29.4           | 133.0          | 1,013.6        | 3,910.2            | 2,221.0             | 2,092.4         | 56.80                          |
| 29.3           | 136.0          | 989.1          | 3,984.8            | 2,217.3             | 2,140.7         | 55.64                          |
| 29.3           | 139.0          | 964.0          | 4,072.7            | 2,209.7             | 2,188.9         | 54.26                          |
| 29.3           | 142.0          | 938.4          | 4,160.6            | 2,198.4             | 2,237.1         | 52.84                          |
| 29.3           | 145.0          | 912.2          | 4,248.5            | 2,183.0             | 2,285.3         | 51.38                          |
| 29.3           | 148.0          | 885.4          | 4,336.4            | 2,163.7             | 2,333.6         | 49.90                          |
| 29.3           | 151.0          | 857.9          | 4,424.3            | 2,139.8             | 2,381.8         | 48.36                          |

nl = rpm with no load

lo = current with no load

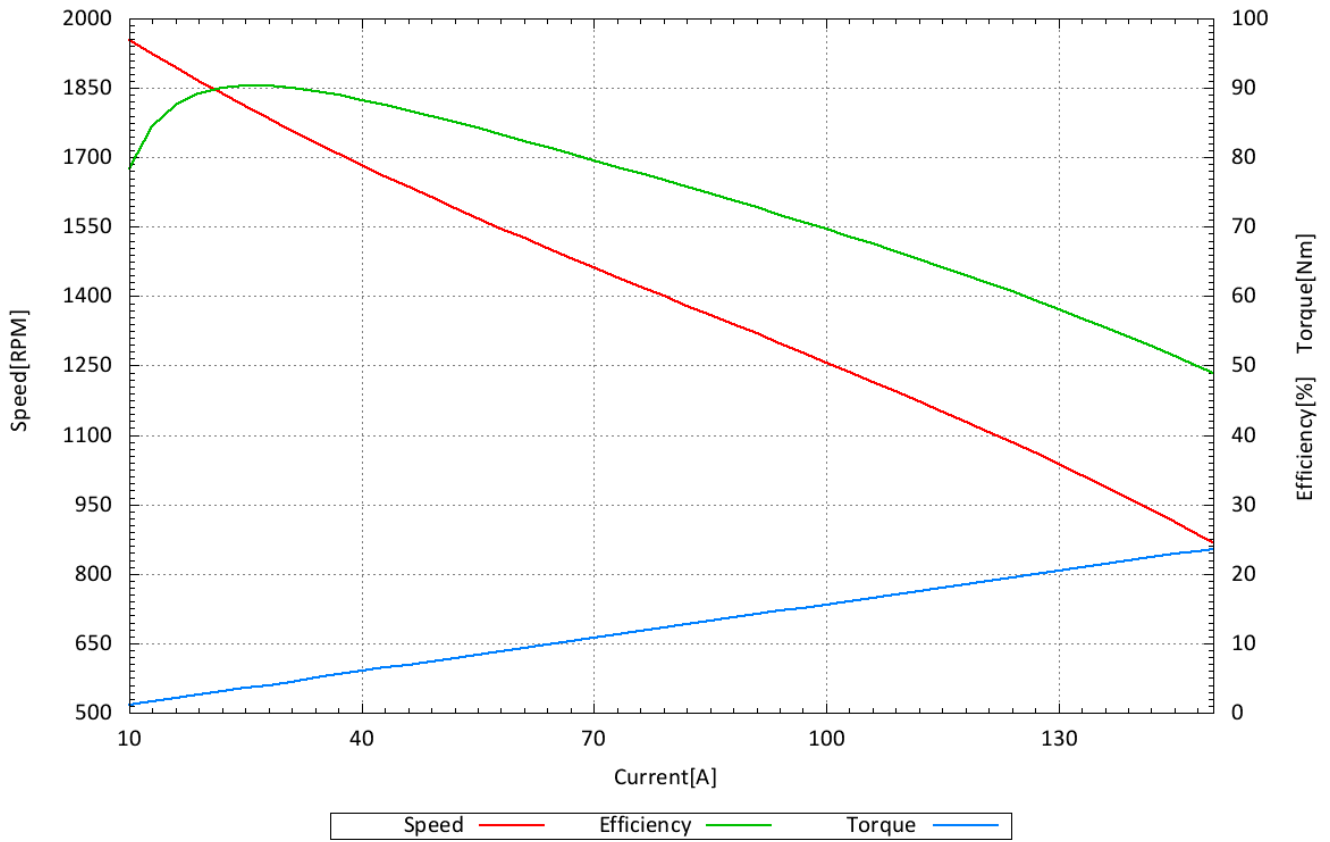
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_30V\_07032024



## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **40.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 2,620.2 [RPM]    lo: 3.6 [A]    kv: 66.3 [RPM/V]    kn: -8.77 [RPM/A]    kT: 16.41 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 40.0           | 10.0           | 2,607.6        | 400.0              | 286.2               | 104.8           | 71.54                          |
| 39.9           | 13.0           | 2,571.3        | 518.7              | 414.7               | 154.0           | 79.94                          |
| 39.9           | 16.0           | 2,536.0        | 638.4              | 539.9               | 203.3           | 84.57                          |
| 39.9           | 19.0           | 2,501.7        | 758.1              | 661.5               | 252.5           | 87.26                          |
| 39.9           | 22.0           | 2,468.3        | 877.8              | 779.8               | 301.7           | 88.84                          |
| 39.9           | 25.0           | 2,435.8        | 997.5              | 895.1               | 350.9           | 89.73                          |
| 39.9           | 28.0           | 2,404.1        | 1,117.2            | 1,007.5             | 400.2           | 90.18                          |
| 39.9           | 31.0           | 2,373.2        | 1,236.9            | 1,116.9             | 449.4           | 90.29                          |
| 39.8           | 34.0           | 2,343.1        | 1,353.2            | 1,223.4             | 498.6           | 90.41                          |
| 39.8           | 37.0           | 2,313.7        | 1,472.6            | 1,327.5             | 547.9           | 90.15                          |
| 39.8           | 40.0           | 2,285.0        | 1,592.0            | 1,428.8             | 597.1           | 89.75                          |
| 39.8           | 43.0           | 2,256.9        | 1,711.4            | 1,527.5             | 646.3           | 89.25                          |
| 39.8           | 46.0           | 2,229.4        | 1,830.8            | 1,624.0             | 695.6           | 88.70                          |
| 39.8           | 49.0           | 2,202.5        | 1,950.2            | 1,717.8             | 744.8           | 88.09                          |
| 39.8           | 52.0           | 2,176.0        | 2,069.6            | 1,809.3             | 794.0           | 87.42                          |
| 39.7           | 55.0           | 2,150.1        | 2,183.5            | 1,898.8             | 843.3           | 86.96                          |
| 39.7           | 58.0           | 2,124.5        | 2,302.6            | 1,985.6             | 892.5           | 86.23                          |
| 39.7           | 61.0           | 2,099.4        | 2,421.7            | 2,070.3             | 941.7           | 85.49                          |
| 39.7           | 64.0           | 2,074.6        | 2,540.8            | 2,153.0             | 991.0           | 84.74                          |
| 39.7           | 67.0           | 2,050.1        | 2,659.9            | 2,233.2             | 1,040.2         | 83.96                          |
| 39.7           | 70.0           | 2,025.9        | 2,779.0            | 2,311.2             | 1,089.4         | 83.17                          |
| 39.7           | 73.0           | 2,001.9        | 2,898.1            | 2,387.2             | 1,138.7         | 82.37                          |
| 39.6           | 76.0           | 1,978.1        | 3,009.6            | 2,460.7             | 1,187.9         | 81.76                          |
| 39.6           | 79.0           | 1,954.4        | 3,128.4            | 2,531.9             | 1,237.1         | 80.93                          |
| 39.6           | 82.0           | 1,930.9        | 3,247.2            | 2,601.1             | 1,286.4         | 80.10                          |
| 39.6           | 85.0           | 1,907.4        | 3,366.0            | 2,667.8             | 1,335.6         | 79.26                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 39.6           | 88.0           | 1,883.9        | 3,484.8            | 2,732.0             | 1,384.8         | 78.40                          |
| 39.6           | 91.0           | 1,860.3        | 3,603.6            | 2,793.6             | 1,434.0         | 77.52                          |
| 39.6           | 94.0           | 1,836.8        | 3,722.4            | 2,853.1             | 1,483.3         | 76.65                          |
| 39.5           | 97.0           | 1,813.1        | 3,831.5            | 2,909.7             | 1,532.5         | 75.94                          |
| 39.5           | 100.0          | 1,789.2        | 3,950.0            | 2,963.5             | 1,581.7         | 75.03                          |
| 39.5           | 103.0          | 1,765.2        | 4,068.5            | 3,014.9             | 1,631.0         | 74.10                          |
| 39.5           | 106.0          | 1,741.0        | 4,187.0            | 3,063.3             | 1,680.2         | 73.16                          |
| 39.5           | 109.0          | 1,716.4        | 4,305.5            | 3,108.4             | 1,729.4         | 72.20                          |
| 39.5           | 112.0          | 1,691.6        | 4,424.0            | 3,150.9             | 1,778.7         | 71.22                          |
| 39.5           | 115.0          | 1,666.4        | 4,542.5            | 3,189.8             | 1,827.9         | 70.22                          |
| 39.5           | 118.0          | 1,640.8        | 4,661.0            | 3,225.3             | 1,877.1         | 69.20                          |
| 39.4           | 121.0          | 1,614.8        | 4,767.4            | 3,257.6             | 1,926.4         | 68.33                          |
| 39.4           | 124.0          | 1,588.3        | 4,885.6            | 3,285.9             | 1,975.6         | 67.26                          |
| 39.4           | 127.0          | 1,561.3        | 5,003.8            | 3,310.5             | 2,024.8         | 66.16                          |
| 39.4           | 130.0          | 1,533.7        | 5,122.0            | 3,331.2             | 2,074.1         | 65.04                          |
| 39.4           | 133.0          | 1,505.5        | 5,240.2            | 3,347.5             | 2,123.3         | 63.88                          |
| 39.4           | 136.0          | 1,476.7        | 5,358.4            | 3,359.5             | 2,172.5         | 62.70                          |
| 39.4           | 139.0          | 1,447.2        | 5,476.6            | 3,367.1             | 2,221.8         | 61.48                          |
| 39.3           | 142.0          | 1,417.0        | 5,580.6            | 3,369.9             | 2,271.0         | 60.39                          |
| 39.3           | 145.0          | 1,386.0        | 5,698.5            | 3,367.6             | 2,320.2         | 59.10                          |
| 39.3           | 148.0          | 1,354.2        | 5,816.4            | 3,360.2             | 2,369.5         | 57.77                          |
| 39.3           | 151.0          | 1,321.5        | 5,934.3            | 3,347.2             | 2,418.7         | 56.40                          |

nl = rpm with no load

lo = current with no load

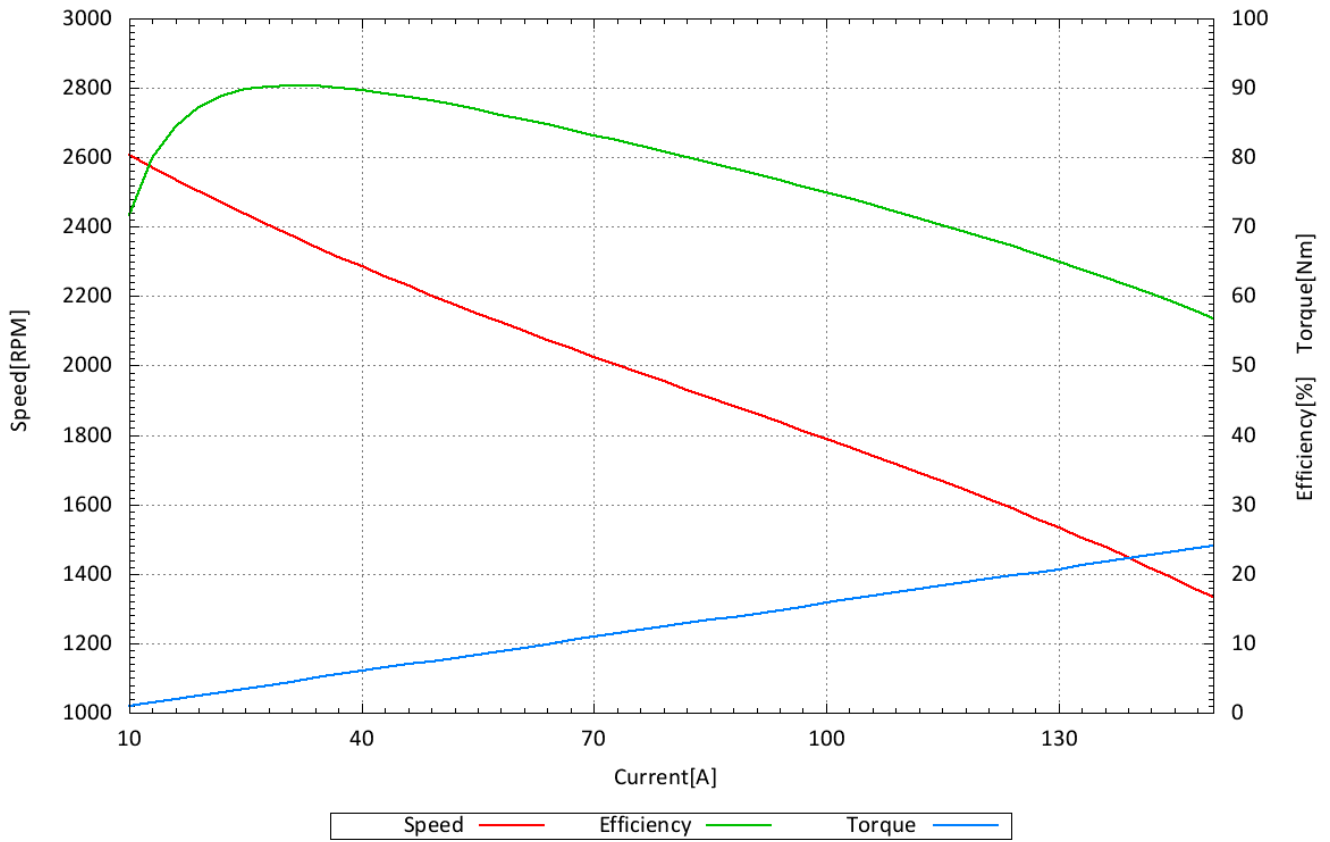
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_40V\_07032024



## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **50.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 3,251.6 [RPM]    lo: 4.0 [A]    kv: 65.8 [RPM/V]    kn: -9.79 [RPM/A]    kT: 16.64 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 50.0           | 10.0           | 3,246.3        | 500.0              | 337.6               | 99.3            | 67.51                          |
| 49.9           | 13.0           | 3,205.2        | 648.7              | 500.8               | 149.2           | 77.20                          |
| 49.9           | 16.0           | 3,165.3        | 798.4              | 660.0               | 199.1           | 82.66                          |
| 49.9           | 19.0           | 3,126.5        | 948.1              | 815.2               | 249.0           | 85.99                          |
| 49.9           | 22.0           | 3,088.7        | 1,097.8            | 966.8               | 298.9           | 88.07                          |
| 49.9           | 25.0           | 3,051.9        | 1,247.5            | 1,115.1             | 348.9           | 89.38                          |
| 49.9           | 28.0           | 3,016.0        | 1,397.2            | 1,259.5             | 398.8           | 90.15                          |
| 49.8           | 31.0           | 2,981.0        | 1,543.8            | 1,400.7             | 448.7           | 90.73                          |
| 49.8           | 34.0           | 2,947.0        | 1,693.2            | 1,538.7             | 498.6           | 90.88                          |
| 49.8           | 37.0           | 2,913.7        | 1,842.6            | 1,673.6             | 548.5           | 90.83                          |
| 49.8           | 40.0           | 2,881.2        | 1,992.0            | 1,805.8             | 598.5           | 90.65                          |
| 49.8           | 43.0           | 2,849.4        | 2,141.4            | 1,934.8             | 648.4           | 90.35                          |
| 49.8           | 46.0           | 2,818.3        | 2,290.8            | 2,060.9             | 698.3           | 89.96                          |
| 49.8           | 49.0           | 2,787.8        | 2,440.2            | 2,184.3             | 748.2           | 89.51                          |
| 49.7           | 52.0           | 2,758.0        | 2,584.4            | 2,305.0             | 798.1           | 89.19                          |
| 49.7           | 55.0           | 2,728.7        | 2,733.5            | 2,423.4             | 848.1           | 88.66                          |
| 49.7           | 58.0           | 2,699.9        | 2,882.6            | 2,538.9             | 898.0           | 88.08                          |
| 49.7           | 61.0           | 2,671.5        | 3,031.7            | 2,651.8             | 947.9           | 87.47                          |
| 49.7           | 64.0           | 2,643.6        | 3,180.8            | 2,762.3             | 997.8           | 86.84                          |
| 49.7           | 67.0           | 2,616.0        | 3,329.9            | 2,870.1             | 1,047.7         | 86.19                          |
| 49.7           | 70.0           | 2,588.8        | 3,479.0            | 2,975.8             | 1,097.7         | 85.54                          |
| 49.6           | 73.0           | 2,561.9        | 3,620.8            | 3,078.8             | 1,147.6         | 85.03                          |
| 49.6           | 76.0           | 2,535.2        | 3,769.6            | 3,179.2             | 1,197.5         | 84.34                          |
| 49.6           | 79.0           | 2,508.7        | 3,918.4            | 3,277.1             | 1,247.4         | 83.63                          |
| 49.6           | 82.0           | 2,482.3        | 4,067.2            | 3,372.3             | 1,297.3         | 82.91                          |
| 49.6           | 85.0           | 2,456.1        | 4,216.0            | 3,465.3             | 1,347.3         | 82.19                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 49.6           | 88.0           | 2,429.9        | 4,364.8            | 3,555.3             | 1,397.2         | 81.45                          |
| 49.5           | 91.0           | 2,403.7        | 4,504.5            | 3,642.6             | 1,447.1         | 80.87                          |
| 49.5           | 94.0           | 2,377.6        | 4,653.0            | 3,727.3             | 1,497.0         | 80.10                          |
| 49.5           | 97.0           | 2,351.3        | 4,801.5            | 3,808.9             | 1,546.9         | 79.33                          |
| 49.5           | 100.0          | 2,324.9        | 4,950.0            | 3,887.9             | 1,596.9         | 78.54                          |
| 49.5           | 103.0          | 2,298.4        | 5,098.5            | 3,963.6             | 1,646.8         | 77.74                          |
| 49.5           | 106.0          | 2,271.7        | 5,247.0            | 4,036.3             | 1,696.7         | 76.93                          |
| 49.5           | 109.0          | 2,244.7        | 5,395.5            | 4,105.6             | 1,746.6         | 76.09                          |
| 49.4           | 112.0          | 2,217.4        | 5,532.8            | 4,171.6             | 1,796.5         | 75.40                          |
| 49.4           | 115.0          | 2,189.8        | 5,681.0            | 4,234.3             | 1,846.5         | 74.53                          |
| 49.4           | 118.0          | 2,161.8        | 5,829.2            | 4,293.1             | 1,896.4         | 73.65                          |
| 49.4           | 121.0          | 2,133.4        | 5,977.4            | 4,348.2             | 1,946.3         | 72.74                          |
| 49.4           | 124.0          | 2,104.5        | 6,125.6            | 4,399.3             | 1,996.2         | 71.82                          |
| 49.4           | 127.0          | 2,075.1        | 6,273.8            | 4,446.3             | 2,046.1         | 70.87                          |
| 49.4           | 130.0          | 2,045.2        | 6,422.0            | 4,489.3             | 2,096.1         | 69.90                          |
| 49.3           | 133.0          | 2,014.6        | 6,556.9            | 4,527.4             | 2,146.0         | 69.05                          |
| 49.3           | 136.0          | 1,983.4        | 6,704.8            | 4,560.9             | 2,195.9         | 68.02                          |
| 49.3           | 139.0          | 1,951.5        | 6,852.7            | 4,589.5             | 2,245.8         | 66.97                          |
| 49.3           | 142.0          | 1,918.9        | 7,000.6            | 4,613.1             | 2,295.7         | 65.90                          |
| 49.3           | 145.0          | 1,885.5        | 7,148.5            | 4,631.6             | 2,345.7         | 64.79                          |
| 49.3           | 148.0          | 1,851.3        | 7,296.4            | 4,644.3             | 2,395.6         | 63.65                          |
| 49.3           | 151.0          | 1,816.2        | 7,444.3            | 4,651.1             | 2,445.5         | 62.48                          |

nl = rpm with no load

lo = current with no load

kV = specific rpm

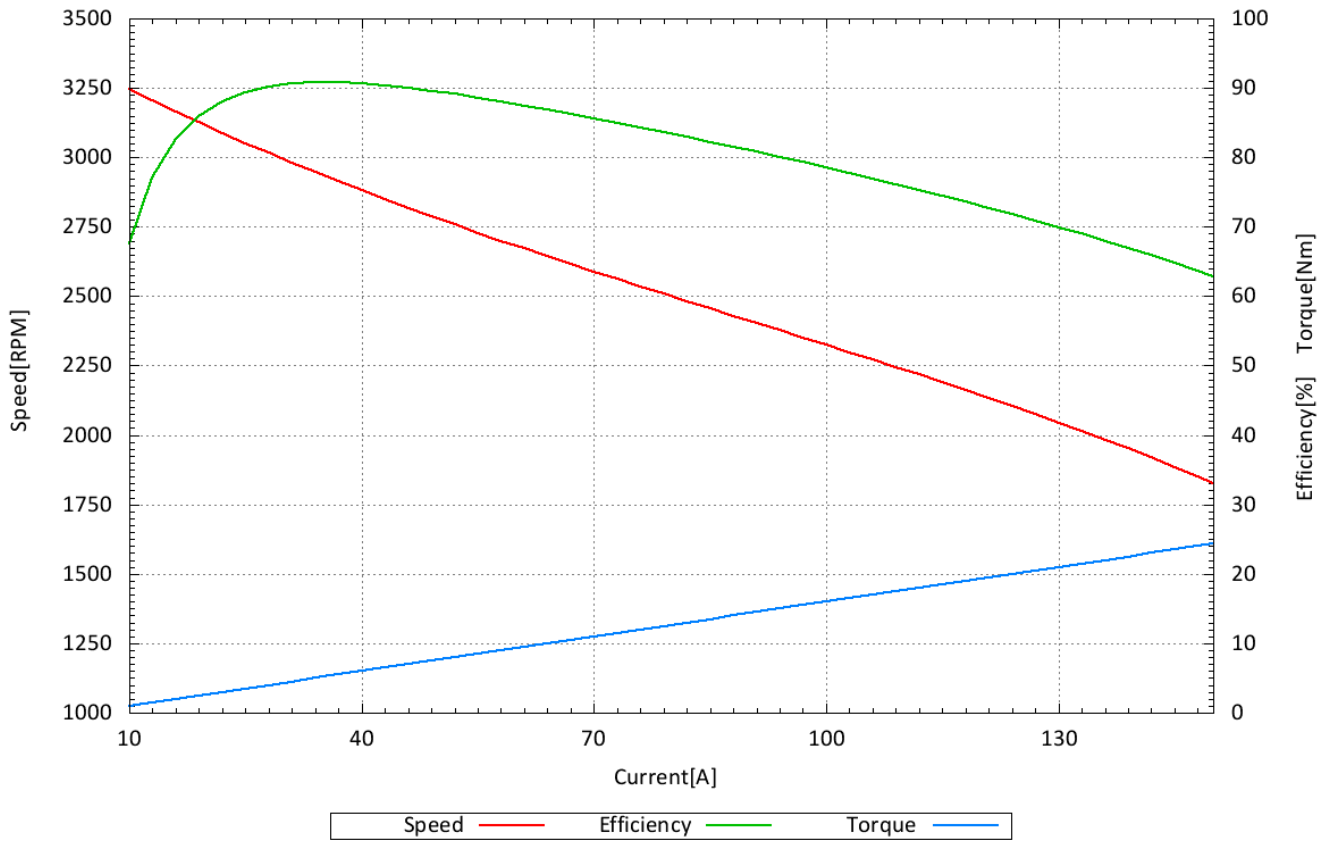
kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller



HP875\_30\_B10\_P30\_50V\_07032024



## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **60.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 3,892.0 [RPM]    lo: 4.2 [A]    kv: 65.6 [RPM/V]    kn: -10.92 [RPM/A]    kT: 16.75 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 60.0           | 10.0           | 3,896.6        | 600.0              | 395.4               | 96.9            | 65.90                          |
| 59.9           | 13.0           | 3,849.4        | 778.7              | 593.4               | 147.2           | 76.20                          |
| 59.9           | 16.0           | 3,803.4        | 958.4              | 786.2               | 197.4           | 82.04                          |
| 59.9           | 19.0           | 3,758.8        | 1,138.1            | 975.0               | 247.7           | 85.67                          |
| 59.9           | 22.0           | 3,715.4        | 1,317.8            | 1,159.1             | 297.9           | 87.95                          |
| 59.9           | 25.0           | 3,673.3        | 1,497.5            | 1,339.0             | 348.1           | 89.42                          |
| 59.9           | 28.0           | 3,632.2        | 1,677.2            | 1,515.4             | 398.4           | 90.35                          |
| 59.8           | 31.0           | 3,592.3        | 1,853.8            | 1,687.6             | 448.6           | 91.03                          |
| 59.8           | 34.0           | 3,553.4        | 2,033.2            | 1,856.5             | 498.9           | 91.31                          |
| 59.8           | 37.0           | 3,515.6        | 2,212.6            | 2,021.5             | 549.1           | 91.36                          |
| 59.8           | 40.0           | 3,478.7        | 2,392.0            | 2,183.5             | 599.4           | 91.29                          |
| 59.8           | 43.0           | 3,442.6        | 2,571.4            | 2,341.9             | 649.6           | 91.07                          |
| 59.8           | 46.0           | 3,407.4        | 2,750.8            | 2,497.4             | 699.9           | 90.79                          |
| 59.8           | 49.0           | 3,373.1        | 2,930.2            | 2,649.6             | 750.1           | 90.42                          |
| 59.7           | 52.0           | 3,339.4        | 3,104.4            | 2,799.0             | 800.4           | 90.16                          |
| 59.7           | 55.0           | 3,306.5        | 3,283.5            | 2,945.3             | 850.6           | 89.70                          |
| 59.7           | 58.0           | 3,274.2        | 3,462.6            | 3,088.6             | 900.8           | 89.20                          |
| 59.7           | 61.0           | 3,242.5        | 3,641.7            | 3,229.5             | 951.1           | 88.68                          |
| 59.7           | 64.0           | 3,211.3        | 3,820.8            | 3,367.2             | 1,001.3         | 88.13                          |
| 59.7           | 67.0           | 3,180.6        | 3,999.9            | 3,502.6             | 1,051.6         | 87.57                          |
| 59.7           | 70.0           | 3,150.4        | 4,179.0            | 3,634.9             | 1,101.8         | 86.98                          |
| 59.6           | 73.0           | 3,120.6        | 4,350.8            | 3,764.9             | 1,152.1         | 86.53                          |
| 59.6           | 76.0           | 3,091.1        | 4,529.6            | 3,891.8             | 1,202.3         | 85.92                          |
| 59.6           | 79.0           | 3,061.9        | 4,708.4            | 4,016.4             | 1,252.6         | 85.30                          |
| 59.6           | 82.0           | 3,032.9        | 4,887.2            | 4,137.8             | 1,302.8         | 84.67                          |
| 59.6           | 85.0           | 3,004.1        | 5,066.0            | 4,256.7             | 1,353.1         | 84.02                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 59.6           | 88.0           | 2,975.5        | 5,244.8            | 4,372.6             | 1,403.3         | 83.37                          |
| 59.6           | 91.0           | 2,946.9        | 5,423.6            | 4,485.5             | 1,453.5         | 82.70                          |
| 59.5           | 94.0           | 2,918.4        | 5,593.0            | 4,595.8             | 1,503.8         | 82.17                          |
| 59.5           | 97.0           | 2,889.9        | 5,771.5            | 4,702.9             | 1,554.0         | 81.48                          |
| 59.5           | 100.0          | 2,861.3        | 5,950.0            | 4,807.0             | 1,604.3         | 80.79                          |
| 59.5           | 103.0          | 2,832.5        | 6,128.5            | 4,907.6             | 1,654.5         | 80.08                          |
| 59.5           | 106.0          | 2,803.7        | 6,307.0            | 5,005.3             | 1,704.8         | 79.36                          |
| 59.5           | 109.0          | 2,774.6        | 6,485.5            | 5,099.2             | 1,755.0         | 78.63                          |
| 59.5           | 112.0          | 2,745.2        | 6,664.0            | 5,189.8             | 1,805.3         | 77.88                          |
| 59.4           | 115.0          | 2,715.5        | 6,831.0            | 5,276.4             | 1,855.5         | 77.24                          |
| 59.4           | 118.0          | 2,685.5        | 7,009.2            | 5,359.6             | 1,905.8         | 76.46                          |
| 59.4           | 121.0          | 2,655.0        | 7,187.4            | 5,438.3             | 1,956.0         | 75.66                          |
| 59.4           | 124.0          | 2,624.1        | 7,365.6            | 5,512.9             | 2,006.2         | 74.85                          |
| 59.4           | 127.0          | 2,592.6        | 7,543.8            | 5,583.3             | 2,056.5         | 74.01                          |
| 59.4           | 130.0          | 2,560.6        | 7,722.0            | 5,649.0             | 2,106.7         | 73.15                          |
| 59.4           | 133.0          | 2,527.9        | 7,900.2            | 5,710.0             | 2,157.0         | 72.28                          |
| 59.3           | 136.0          | 2,494.6        | 8,064.8            | 5,766.0             | 2,207.2         | 71.50                          |
| 59.3           | 139.0          | 2,460.5        | 8,242.7            | 5,816.7             | 2,257.5         | 70.57                          |
| 59.3           | 142.0          | 2,425.7        | 8,420.6            | 5,862.0             | 2,307.7         | 69.61                          |
| 59.3           | 145.0          | 2,390.0        | 8,598.5            | 5,901.6             | 2,358.0         | 68.64                          |
| 59.3           | 148.0          | 2,353.5        | 8,776.4            | 5,935.2             | 2,408.2         | 67.63                          |
| 59.3           | 151.0          | 2,316.0        | 8,954.3            | 5,962.6             | 2,458.5         | 66.59                          |

nl = rpm with no load

lo = current with no load

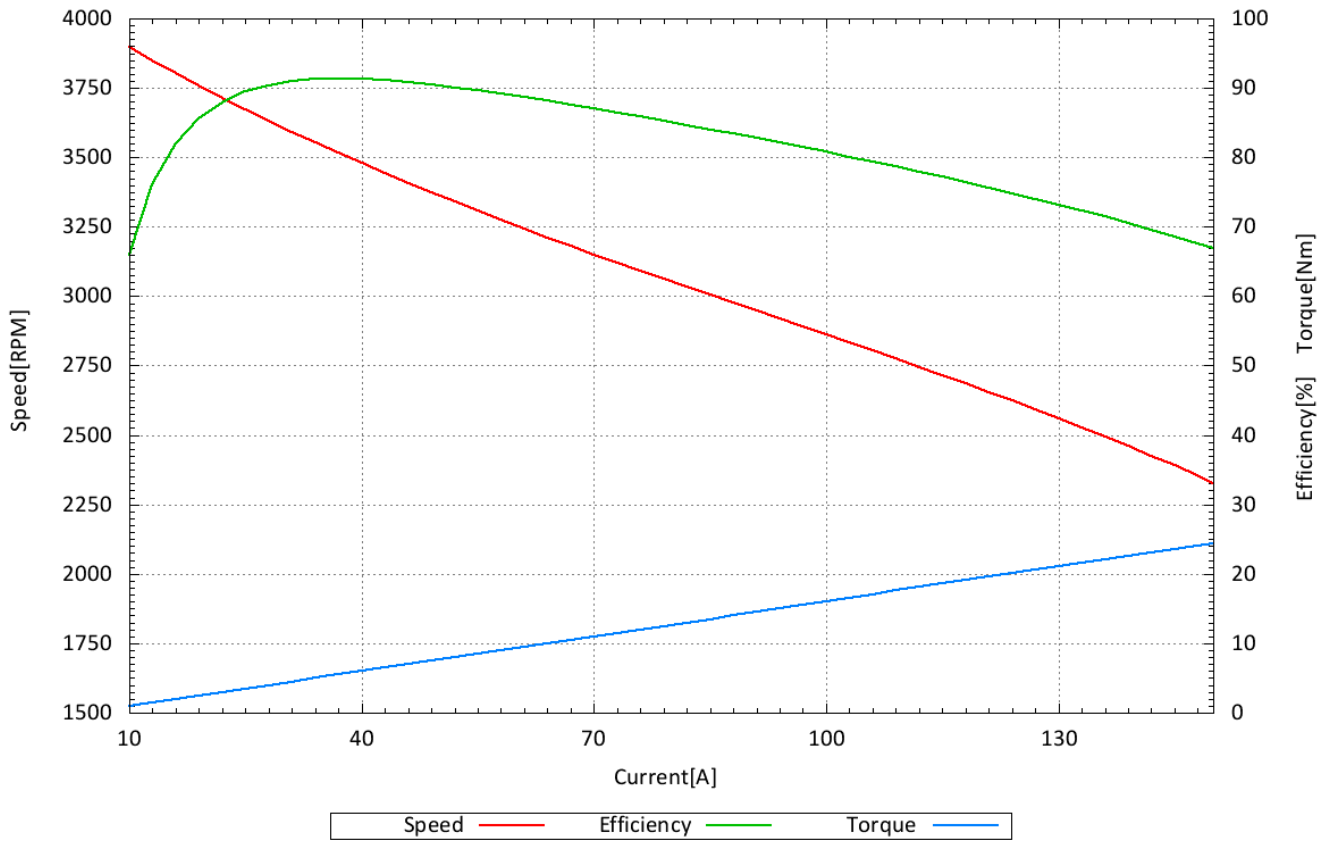
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_60V\_07032024



## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **70.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 4,504.2 [RPM]    lo: 4.6 [A]    kv: 65.1 [RPM/V]    kn: -11.69 [RPM/A]    kT: 16.81 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 69.9           | 10.0           | 4,534.9        | 699.0              | 433.6               | 91.3            | 62.03                          |
| 69.9           | 13.0           | 4,482.4        | 908.7              | 665.1               | 141.7           | 73.20                          |
| 69.9           | 16.0           | 4,431.5        | 1,118.4            | 891.9               | 192.2           | 79.75                          |
| 69.9           | 19.0           | 4,382.0        | 1,328.1            | 1,113.2             | 242.6           | 83.82                          |
| 69.9           | 22.0           | 4,333.9        | 1,537.8            | 1,329.8             | 293.0           | 86.47                          |
| 69.9           | 25.0           | 4,287.1        | 1,747.5            | 1,542.1             | 343.5           | 88.25                          |
| 69.9           | 28.0           | 4,241.7        | 1,957.2            | 1,749.7             | 393.9           | 89.40                          |
| 69.8           | 31.0           | 4,197.4        | 2,163.8            | 1,953.4             | 444.4           | 90.27                          |
| 69.8           | 34.0           | 4,154.4        | 2,373.2            | 2,152.6             | 494.8           | 90.71                          |
| 69.8           | 37.0           | 4,112.5        | 2,582.6            | 2,348.0             | 545.2           | 90.91                          |
| 69.8           | 40.0           | 4,071.6        | 2,792.0            | 2,539.9             | 595.7           | 90.97                          |
| 69.8           | 43.0           | 4,031.8        | 3,001.4            | 2,727.9             | 646.1           | 90.89                          |
| 69.8           | 46.0           | 3,992.9        | 3,210.8            | 2,912.3             | 696.5           | 90.70                          |
| 69.8           | 49.0           | 3,954.9        | 3,420.2            | 3,093.7             | 747.0           | 90.46                          |
| 69.7           | 52.0           | 3,917.8        | 3,624.4            | 3,271.5             | 797.4           | 90.26                          |
| 69.7           | 55.0           | 3,881.5        | 3,833.5            | 3,446.1             | 847.8           | 89.89                          |
| 69.7           | 58.0           | 3,845.9        | 4,042.6            | 3,617.8             | 898.3           | 89.49                          |
| 69.7           | 61.0           | 3,811.0        | 4,251.7            | 3,786.1             | 948.7           | 89.05                          |
| 69.7           | 64.0           | 3,776.8        | 4,460.8            | 3,951.5             | 999.1           | 88.58                          |
| 69.7           | 67.0           | 3,743.1        | 4,669.9            | 4,114.2             | 1,049.6         | 88.10                          |
| 69.6           | 70.0           | 3,709.9        | 4,872.0            | 4,273.5             | 1,100.0         | 87.72                          |
| 69.6           | 73.0           | 3,677.2        | 5,080.8            | 4,430.3             | 1,150.5         | 87.20                          |
| 69.6           | 76.0           | 3,645.0        | 5,289.6            | 4,583.9             | 1,200.9         | 86.66                          |
| 69.6           | 79.0           | 3,613.1        | 5,498.4            | 4,734.5             | 1,251.3         | 86.11                          |
| 69.6           | 82.0           | 3,581.4        | 5,707.2            | 4,882.3             | 1,301.8         | 85.55                          |
| 69.6           | 85.0           | 3,550.1        | 5,916.0            | 5,027.0             | 1,352.2         | 84.97                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 69.6           | 88.0           | 3,518.9        | 6,124.8            | 5,168.6             | 1,402.6         | 84.39                          |
| 69.5           | 91.0           | 3,487.9        | 6,324.5            | 5,307.5             | 1,453.1         | 83.92                          |
| 69.5           | 94.0           | 3,457.0        | 6,533.0            | 5,442.9             | 1,503.5         | 83.31                          |
| 69.5           | 97.0           | 3,426.1        | 6,741.5            | 5,575.1             | 1,553.9         | 82.70                          |
| 69.5           | 100.0          | 3,395.2        | 6,950.0            | 5,704.4             | 1,604.4         | 82.08                          |
| 69.5           | 103.0          | 3,364.2        | 7,158.5            | 5,829.8             | 1,654.8         | 81.44                          |
| 69.5           | 106.0          | 3,333.0        | 7,367.0            | 5,952.0             | 1,705.3         | 80.79                          |
| 69.5           | 109.0          | 3,301.7        | 7,575.5            | 6,070.4             | 1,755.7         | 80.13                          |
| 69.4           | 112.0          | 3,270.2        | 7,772.8            | 6,185.1             | 1,806.1         | 79.57                          |
| 69.4           | 115.0          | 3,238.3        | 7,981.0            | 6,296.0             | 1,856.6         | 78.89                          |
| 69.4           | 118.0          | 3,206.1        | 8,189.2            | 6,402.6             | 1,907.0         | 78.18                          |
| 69.4           | 121.0          | 3,173.5        | 8,397.4            | 6,505.0             | 1,957.4         | 77.46                          |
| 69.4           | 124.0          | 3,140.4        | 8,605.6            | 6,603.2             | 2,007.9         | 76.73                          |
| 69.4           | 127.0          | 3,106.9        | 8,813.8            | 6,696.8             | 2,058.3         | 75.98                          |
| 69.3           | 130.0          | 3,072.7        | 9,009.0            | 6,785.2             | 2,108.7         | 75.32                          |
| 69.3           | 133.0          | 3,037.9        | 9,216.9            | 6,869.0             | 2,159.2         | 74.53                          |
| 69.3           | 136.0          | 3,002.5        | 9,424.8            | 6,947.4             | 2,209.6         | 73.71                          |
| 69.3           | 139.0          | 2,966.3        | 9,632.7            | 7,020.6             | 2,260.1         | 72.88                          |
| 69.3           | 142.0          | 2,929.3        | 9,840.6            | 7,087.6             | 2,310.5         | 72.02                          |
| 69.3           | 145.0          | 2,891.5        | 10,048.5           | 7,148.7             | 2,360.9         | 71.14                          |
| 69.3           | 148.0          | 2,852.8        | 10,256.4           | 7,203.9             | 2,411.4         | 70.24                          |
| 69.2           | 151.0          | 2,813.2        | 10,449.2           | 7,252.4             | 2,461.8         | 69.41                          |

nl = rpm with no load

lo = current with no load

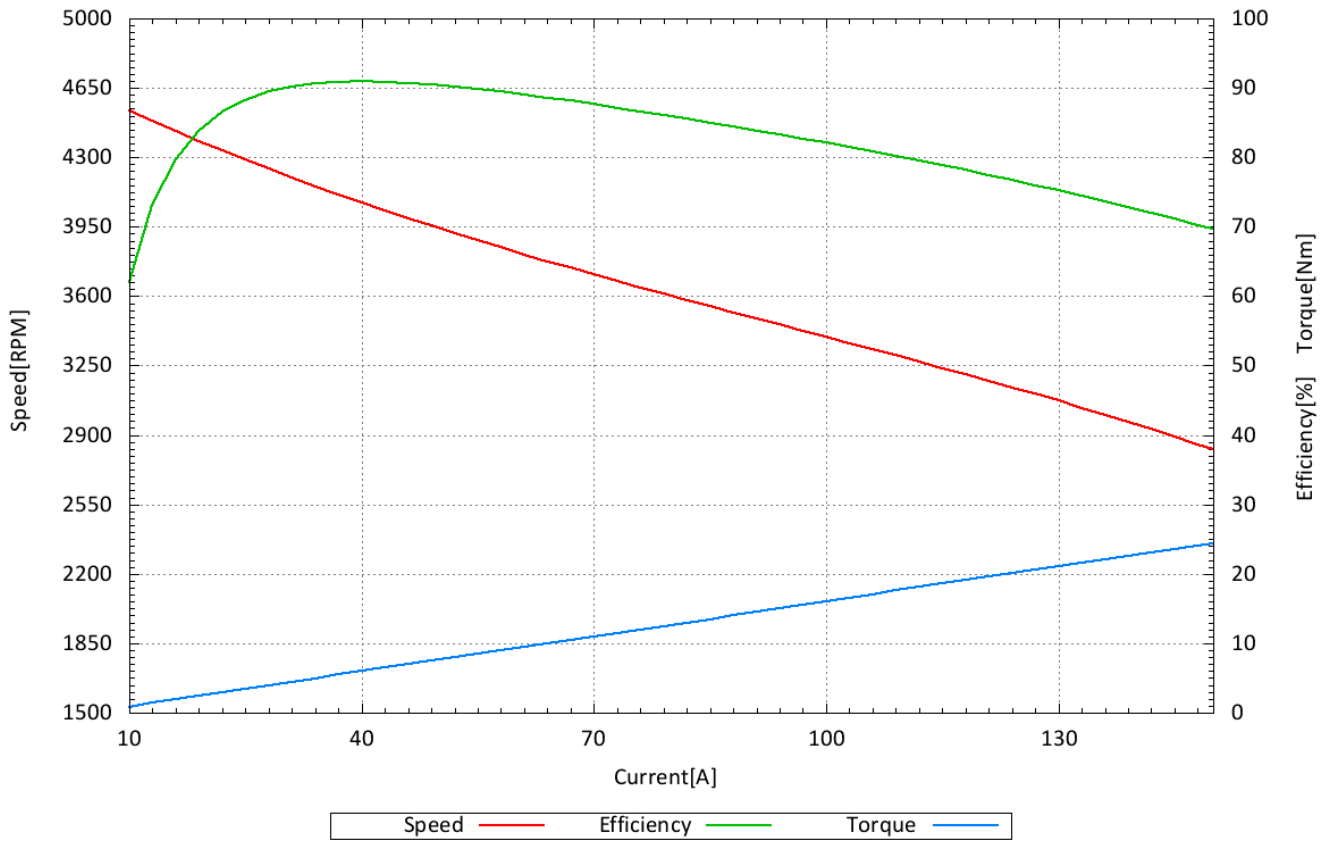
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_70V\_07032024



## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **80.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 5,133.1 [RPM]    lo: 4.8 [A]    kv: 64.9 [RPM/V]    kn: -12.71 [RPM/A]    kT: 16.97 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 79.9           | 10.0           | 5,173.9        | 799.0              | 480.0               | 88.6            | 60.08                          |
| 79.9           | 13.0           | 5,116.1        | 1,038.7            | 747.4               | 139.5           | 71.95                          |
| 79.9           | 16.0           | 5,060.1        | 1,278.4            | 1,008.9             | 190.4           | 78.92                          |
| 79.9           | 19.0           | 5,005.6        | 1,518.1            | 1,264.9             | 241.3           | 83.32                          |
| 79.9           | 22.0           | 4,952.8        | 1,757.8            | 1,515.5             | 292.2           | 86.22                          |
| 79.9           | 25.0           | 4,901.4        | 1,997.5            | 1,761.0             | 343.1           | 88.16                          |
| 79.9           | 28.0           | 4,851.5        | 2,237.2            | 2,001.7             | 394.0           | 89.47                          |
| 79.8           | 31.0           | 4,802.9        | 2,473.8            | 2,237.7             | 444.9           | 90.45                          |
| 79.8           | 34.0           | 4,755.7        | 2,713.2            | 2,469.2             | 495.8           | 91.01                          |
| 79.8           | 37.0           | 4,709.7        | 2,952.6            | 2,696.3             | 546.7           | 91.32                          |
| 79.8           | 40.0           | 4,665.0        | 3,192.0            | 2,919.4             | 597.6           | 91.46                          |
| 79.8           | 43.0           | 4,621.4        | 3,431.4            | 3,138.4             | 648.5           | 91.46                          |
| 79.8           | 46.0           | 4,578.8        | 3,670.8            | 3,353.6             | 699.4           | 91.36                          |
| 79.8           | 49.0           | 4,537.3        | 3,910.2            | 3,565.0             | 750.3           | 91.17                          |
| 79.7           | 52.0           | 4,496.8        | 4,144.4            | 3,772.9             | 801.2           | 91.04                          |
| 79.7           | 55.0           | 4,457.1        | 4,383.5            | 3,977.1             | 852.1           | 90.73                          |
| 79.7           | 58.0           | 4,418.3        | 4,622.6            | 4,178.0             | 903.0           | 90.38                          |
| 79.7           | 61.0           | 4,380.3        | 4,861.7            | 4,375.6             | 953.9           | 90.00                          |
| 79.7           | 64.0           | 4,342.9        | 5,100.8            | 4,569.7             | 1,004.8         | 89.59                          |
| 79.7           | 67.0           | 4,306.3        | 5,339.9            | 4,760.7             | 1,055.7         | 89.15                          |
| 79.6           | 70.0           | 4,270.2        | 5,572.0            | 4,948.4             | 1,106.6         | 88.81                          |
| 79.6           | 73.0           | 4,234.7        | 5,810.8            | 5,133.0             | 1,157.5         | 88.34                          |
| 79.6           | 76.0           | 4,199.7        | 6,049.6            | 5,314.4             | 1,208.4         | 87.85                          |
| 79.6           | 79.0           | 4,165.0        | 6,288.4            | 5,492.5             | 1,259.3         | 87.34                          |
| 79.6           | 82.0           | 4,130.8        | 6,527.2            | 5,667.6             | 1,310.2         | 86.83                          |
| 79.6           | 85.0           | 4,096.8        | 6,766.0            | 5,839.3             | 1,361.1         | 86.30                          |



| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 79.6           | 88.0           | 4,063.1        | 7,004.8            | 6,007.9             | 1,412.0         | 85.77                          |
| 79.5           | 91.0           | 4,029.5        | 7,234.5            | 6,173.0             | 1,462.9         | 85.33                          |
| 79.5           | 94.0           | 3,996.1        | 7,473.0            | 6,334.8             | 1,513.8         | 84.77                          |
| 79.5           | 97.0           | 3,962.7        | 7,711.5            | 6,493.5             | 1,564.8         | 84.21                          |
| 79.5           | 100.0          | 3,929.3        | 7,950.0            | 6,648.2             | 1,615.7         | 83.63                          |
| 79.5           | 103.0          | 3,895.8        | 8,188.5            | 6,799.2             | 1,666.6         | 83.03                          |
| 79.5           | 106.0          | 3,862.3        | 8,427.0            | 6,946.6             | 1,717.5         | 82.43                          |
| 79.5           | 109.0          | 3,828.5        | 8,665.5            | 7,089.9             | 1,768.4         | 81.82                          |
| 79.4           | 112.0          | 3,794.5        | 8,892.8            | 7,229.2             | 1,819.3         | 81.29                          |
| 79.4           | 115.0          | 3,760.2        | 9,131.0            | 7,364.2             | 1,870.2         | 80.65                          |
| 79.4           | 118.0          | 3,725.5        | 9,369.2            | 7,494.9             | 1,921.1         | 79.99                          |
| 79.4           | 121.0          | 3,690.4        | 9,607.4            | 7,620.9             | 1,972.0         | 79.32                          |
| 79.4           | 124.0          | 3,654.8        | 9,845.6            | 7,742.2             | 2,022.9         | 78.64                          |
| 79.4           | 127.0          | 3,618.6        | 10,083.8           | 7,858.4             | 2,073.8         | 77.93                          |
| 79.3           | 130.0          | 3,581.9        | 10,309.0           | 7,969.7             | 2,124.7         | 77.31                          |
| 79.3           | 133.0          | 3,544.4        | 10,546.9           | 8,075.1             | 2,175.6         | 76.56                          |
| 79.3           | 136.0          | 3,506.3        | 10,784.8           | 8,175.2             | 2,226.5         | 75.80                          |
| 79.3           | 139.0          | 3,467.3        | 11,022.7           | 8,269.1             | 2,277.4         | 75.02                          |
| 79.3           | 142.0          | 3,427.5        | 11,260.6           | 8,356.9             | 2,328.3         | 74.21                          |
| 79.3           | 145.0          | 3,386.8        | 11,498.5           | 8,438.2             | 2,379.2         | 73.39                          |
| 79.3           | 148.0          | 3,345.1        | 11,736.4           | 8,512.6             | 2,430.1         | 72.53                          |
| 79.2           | 151.0          | 3,302.4        | 11,959.2           | 8,580.0             | 2,481.0         | 71.74                          |

nl = rpm with no load

lo = current with no load

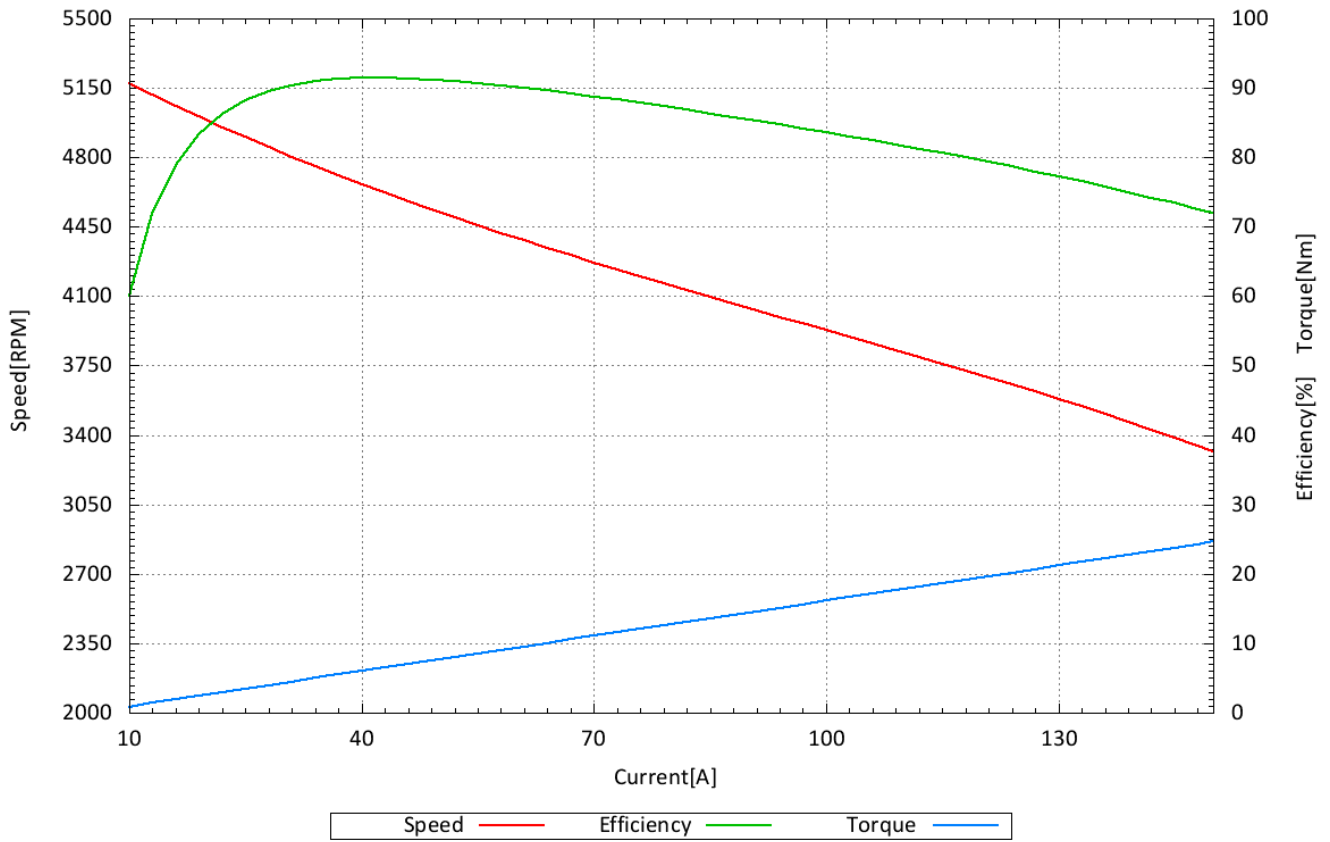
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_80V\_07032024



## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **90.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 5,753.5 [RPM]    lo: 5.0 [A]    kv: 64.7 [RPM/V]    kn: -13.68 [RPM/A]    kT: 17.09 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 89.9           | 10.0           | 5,805.1        | 899.0              | 518.5               | 85.3            | 57.68                          |
| 89.9           | 13.0           | 5,742.3        | 1,168.7            | 820.8               | 136.5           | 70.23                          |
| 89.9           | 16.0           | 5,681.3        | 1,438.4            | 1,117.3             | 187.8           | 77.68                          |
| 89.9           | 19.0           | 5,622.1        | 1,708.1            | 1,407.7             | 239.1           | 82.41                          |
| 89.9           | 22.0           | 5,564.6        | 1,977.8            | 1,692.2             | 290.4           | 85.56                          |
| 89.9           | 25.0           | 5,508.8        | 2,247.5            | 1,970.6             | 341.6           | 87.68                          |
| 89.9           | 28.0           | 5,454.5        | 2,517.2            | 2,244.2             | 392.9           | 89.16                          |
| 89.8           | 31.0           | 5,401.8        | 2,783.8            | 2,512.7             | 444.2           | 90.26                          |
| 89.8           | 34.0           | 5,350.6        | 3,053.2            | 2,776.4             | 495.5           | 90.93                          |
| 89.8           | 37.0           | 5,300.7        | 3,322.6            | 3,034.7             | 546.7           | 91.33                          |
| 89.8           | 40.0           | 5,252.2        | 3,592.0            | 3,289.1             | 598.0           | 91.57                          |
| 89.8           | 43.0           | 5,204.9        | 3,861.4            | 3,539.0             | 649.3           | 91.65                          |
| 89.8           | 46.0           | 5,158.8        | 4,130.8            | 3,784.3             | 700.5           | 91.61                          |
| 89.8           | 49.0           | 5,113.9        | 4,400.2            | 4,026.1             | 751.8           | 91.50                          |
| 89.7           | 52.0           | 5,070.1        | 4,664.4            | 4,264.0             | 803.1           | 91.42                          |
| 89.7           | 55.0           | 5,027.2        | 4,933.5            | 4,498.0             | 854.4           | 91.17                          |
| 89.7           | 58.0           | 4,985.3        | 5,202.6            | 4,727.8             | 905.6           | 90.87                          |
| 89.7           | 61.0           | 4,944.2        | 5,471.7            | 4,954.4             | 956.9           | 90.55                          |
| 89.7           | 64.0           | 4,904.0        | 5,740.8            | 5,177.6             | 1,008.2         | 90.19                          |
| 89.7           | 67.0           | 4,864.5        | 6,009.9            | 5,397.2             | 1,059.5         | 89.81                          |
| 89.6           | 70.0           | 4,825.7        | 6,272.0            | 5,612.9             | 1,110.7         | 89.49                          |
| 89.6           | 73.0           | 4,787.5        | 6,540.8            | 5,825.6             | 1,162.0         | 89.07                          |
| 89.6           | 76.0           | 4,749.9        | 6,809.6            | 6,035.1             | 1,213.3         | 88.63                          |
| 89.6           | 79.0           | 4,712.7        | 7,078.4            | 6,241.0             | 1,264.6         | 88.17                          |
| 89.6           | 82.0           | 4,676.0        | 7,347.2            | 6,443.1             | 1,315.8         | 87.69                          |
| 89.6           | 85.0           | 4,639.7        | 7,616.0            | 6,642.3             | 1,367.1         | 87.22                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 89.6           | 88.0           | 4,603.6        | 7,884.8            | 6,837.9             | 1,418.4         | 86.72                          |
| 89.5           | 91.0           | 4,567.7        | 8,144.5            | 7,030.0             | 1,469.7         | 86.32                          |
| 89.5           | 94.0           | 4,532.1        | 8,413.0            | 7,218.2             | 1,520.9         | 85.80                          |
| 89.5           | 97.0           | 4,496.5        | 8,681.5            | 7,403.1             | 1,572.2         | 85.27                          |
| 89.5           | 100.0          | 4,460.9        | 8,950.0            | 7,584.1             | 1,623.5         | 84.74                          |
| 89.5           | 103.0          | 4,425.3        | 9,218.5            | 7,760.8             | 1,674.7         | 84.19                          |
| 89.5           | 106.0          | 4,389.7        | 9,487.0            | 7,934.2             | 1,726.0         | 83.63                          |
| 89.5           | 109.0          | 4,353.8        | 9,755.5            | 8,103.2             | 1,777.3         | 83.06                          |
| 89.4           | 112.0          | 4,317.8        | 10,012.8           | 8,268.2             | 1,828.6         | 82.58                          |
| 89.4           | 115.0          | 4,281.4        | 10,281.0           | 8,428.0             | 1,879.8         | 81.98                          |
| 89.4           | 118.0          | 4,244.7        | 10,549.2           | 8,583.8             | 1,931.1         | 81.37                          |
| 89.4           | 121.0          | 4,207.6        | 10,817.4           | 8,734.8             | 1,982.4         | 80.75                          |
| 89.4           | 124.0          | 4,170.0        | 11,085.6           | 8,880.8             | 2,033.7         | 80.11                          |
| 89.4           | 127.0          | 4,131.8        | 11,353.8           | 9,021.0             | 2,084.9         | 79.45                          |
| 89.3           | 130.0          | 4,093.0        | 11,609.0           | 9,156.1             | 2,136.2         | 78.87                          |
| 89.3           | 133.0          | 4,053.6        | 11,876.9           | 9,285.8             | 2,187.5         | 78.18                          |
| 89.3           | 136.0          | 4,013.4        | 12,144.8           | 9,409.3             | 2,238.8         | 77.48                          |
| 89.3           | 139.0          | 3,972.4        | 12,412.7           | 9,526.1             | 2,290.0         | 76.75                          |
| 89.3           | 142.0          | 3,930.5        | 12,680.6           | 9,636.8             | 2,341.3         | 76.00                          |
| 89.3           | 145.0          | 3,887.7        | 12,948.5           | 9,740.7             | 2,392.6         | 75.23                          |
| 89.3           | 148.0          | 3,843.8        | 13,216.4           | 9,837.2             | 2,443.9         | 74.43                          |
| 89.2           | 151.0          | 3,799.0        | 13,469.2           | 9,926.3             | 2,495.1         | 73.70                          |

nl = rpm with no load

lo = current with no load

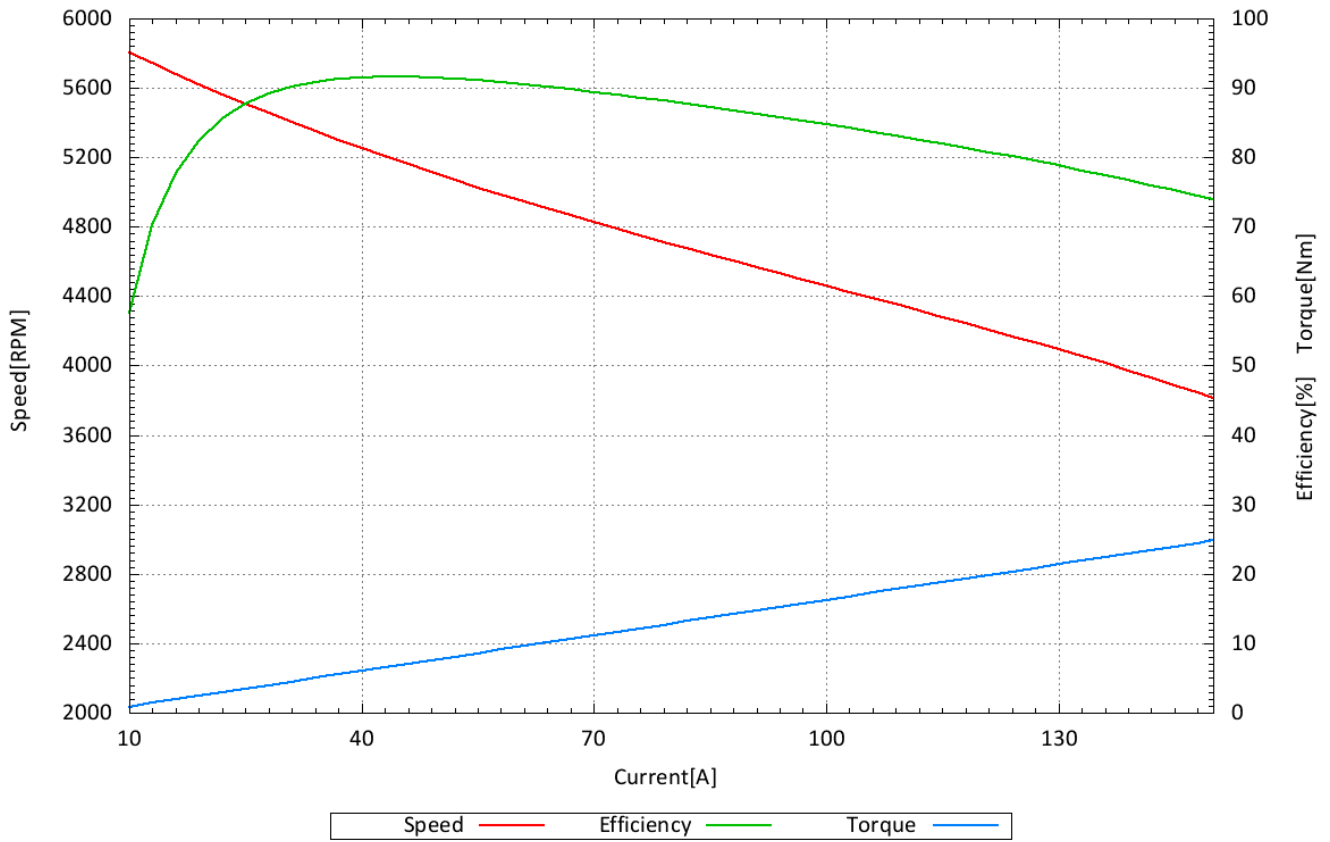
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_90V\_07032024



## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **100.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 6,389.9 [RPM]    lo: 5.2 [A]    kv: 64.7 [RPM/V]    kn: -15.20 [RPM/A]    kT: 17.09 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 99.9           | 10.0           | 6,452.6        | 999.0              | 554.8               | 82.1            | 55.53                          |
| 99.9           | 13.0           | 6,383.5        | 1,298.7            | 891.8               | 133.4           | 68.66                          |
| 99.9           | 16.0           | 6,316.4        | 1,598.4            | 1,221.0             | 184.6           | 76.39                          |
| 99.9           | 19.0           | 6,251.3        | 1,898.1            | 1,544.3             | 235.9           | 81.36                          |
| 99.9           | 22.0           | 6,188.1        | 2,197.8            | 1,861.1             | 287.2           | 84.68                          |
| 99.9           | 25.0           | 6,126.6        | 2,497.5            | 2,171.7             | 338.5           | 86.96                          |
| 99.9           | 28.0           | 6,067.0        | 2,797.2            | 2,475.9             | 389.7           | 88.51                          |
| 99.8           | 31.0           | 6,009.0        | 3,093.8            | 2,775.0             | 441.0           | 89.70                          |
| 99.8           | 34.0           | 5,952.6        | 3,393.2            | 3,068.8             | 492.3           | 90.44                          |
| 99.8           | 37.0           | 5,897.8        | 3,692.6            | 3,357.4             | 543.6           | 90.92                          |
| 99.8           | 40.0           | 5,844.4        | 3,992.0            | 3,640.3             | 594.8           | 91.19                          |
| 99.8           | 43.0           | 5,792.4        | 4,291.4            | 3,919.1             | 646.1           | 91.32                          |
| 99.8           | 46.0           | 5,741.7        | 4,590.8            | 4,193.3             | 697.4           | 91.34                          |
| 99.8           | 49.0           | 5,692.3        | 4,890.2            | 4,463.0             | 748.7           | 91.26                          |
| 99.7           | 52.0           | 5,644.0        | 5,184.4            | 4,727.7             | 799.9           | 91.19                          |
| 99.7           | 55.0           | 5,596.9        | 5,483.5            | 4,988.9             | 851.2           | 90.98                          |
| 99.7           | 58.0           | 5,550.8        | 5,782.6            | 5,246.0             | 902.5           | 90.72                          |
| 99.7           | 61.0           | 5,505.6        | 6,081.7            | 5,498.5             | 953.7           | 90.41                          |
| 99.7           | 64.0           | 5,461.4        | 6,380.8            | 5,747.8             | 1,005.0         | 90.08                          |
| 99.7           | 67.0           | 5,418.0        | 6,679.9            | 5,993.1             | 1,056.3         | 89.72                          |
| 99.6           | 70.0           | 5,375.3        | 6,972.0            | 6,234.7             | 1,107.6         | 89.42                          |
| 99.6           | 73.0           | 5,333.3        | 7,270.8            | 6,471.9             | 1,158.8         | 89.01                          |
| 99.6           | 76.0           | 5,291.9        | 7,569.6            | 6,706.0             | 1,210.1         | 88.59                          |
| 99.6           | 79.0           | 5,251.0        | 7,868.4            | 6,936.2             | 1,261.4         | 88.15                          |
| 99.6           | 82.0           | 5,210.6        | 8,167.2            | 7,162.8             | 1,312.7         | 87.70                          |
| 99.6           | 85.0           | 5,170.6        | 8,466.0            | 7,385.0             | 1,363.9         | 87.23                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 99.6           | 88.0           | 5,130.9        | 8,764.8            | 7,604.0             | 1,415.2         | 86.76                          |
| 99.5           | 91.0           | 5,091.5        | 9,054.5            | 7,819.1             | 1,466.5         | 86.36                          |
| 99.5           | 94.0           | 5,052.2        | 9,353.0            | 8,030.2             | 1,517.8         | 85.86                          |
| 99.5           | 97.0           | 5,013.1        | 9,651.5            | 8,236.8             | 1,569.0         | 85.34                          |
| 99.5           | 100.0          | 4,974.0        | 9,950.0            | 8,439.8             | 1,620.3         | 84.82                          |
| 99.5           | 103.0          | 4,934.9        | 10,248.5           | 8,638.5             | 1,671.6         | 84.29                          |
| 99.5           | 106.0          | 4,895.6        | 10,547.0           | 8,832.2             | 1,722.8         | 83.74                          |
| 99.5           | 109.0          | 4,856.2        | 10,845.5           | 9,022.0             | 1,774.1         | 83.19                          |
| 99.4           | 112.0          | 4,816.5        | 11,132.8           | 9,207.0             | 1,825.4         | 82.70                          |
| 99.4           | 115.0          | 4,776.5        | 11,431.0           | 9,387.1             | 1,876.7         | 82.12                          |
| 99.4           | 118.0          | 4,736.2        | 11,729.2           | 9,561.9             | 1,927.9         | 81.52                          |
| 99.4           | 121.0          | 4,695.3        | 12,027.4           | 9,731.5             | 1,979.2         | 80.91                          |
| 99.4           | 124.0          | 4,653.9        | 12,325.6           | 9,895.7             | 2,030.5         | 80.29                          |
| 99.4           | 127.0          | 4,612.0        | 12,623.8           | 10,054.4            | 2,081.8         | 79.65                          |
| 99.3           | 130.0          | 4,569.3        | 12,909.0           | 10,206.3            | 2,133.0         | 79.06                          |
| 99.3           | 133.0          | 4,525.9        | 13,206.9           | 10,352.5            | 2,184.3         | 78.39                          |
| 99.3           | 136.0          | 4,481.7        | 13,504.8           | 10,492.2            | 2,235.6         | 77.69                          |
| 99.3           | 139.0          | 4,436.6        | 13,802.7           | 10,624.9            | 2,286.9         | 76.98                          |
| 99.3           | 142.0          | 4,390.5        | 14,100.6           | 10,749.9            | 2,338.1         | 76.24                          |
| 99.3           | 145.0          | 4,343.4        | 14,398.5           | 10,867.9            | 2,389.4         | 75.48                          |
| 99.3           | 148.0          | 4,295.2        | 14,696.4           | 10,978.1            | 2,440.7         | 74.70                          |
| 99.2           | 151.0          | 4,245.8        | 14,979.2           | 11,079.9            | 2,492.0         | 73.97                          |

nl = rpm with no load

lo = current with no load

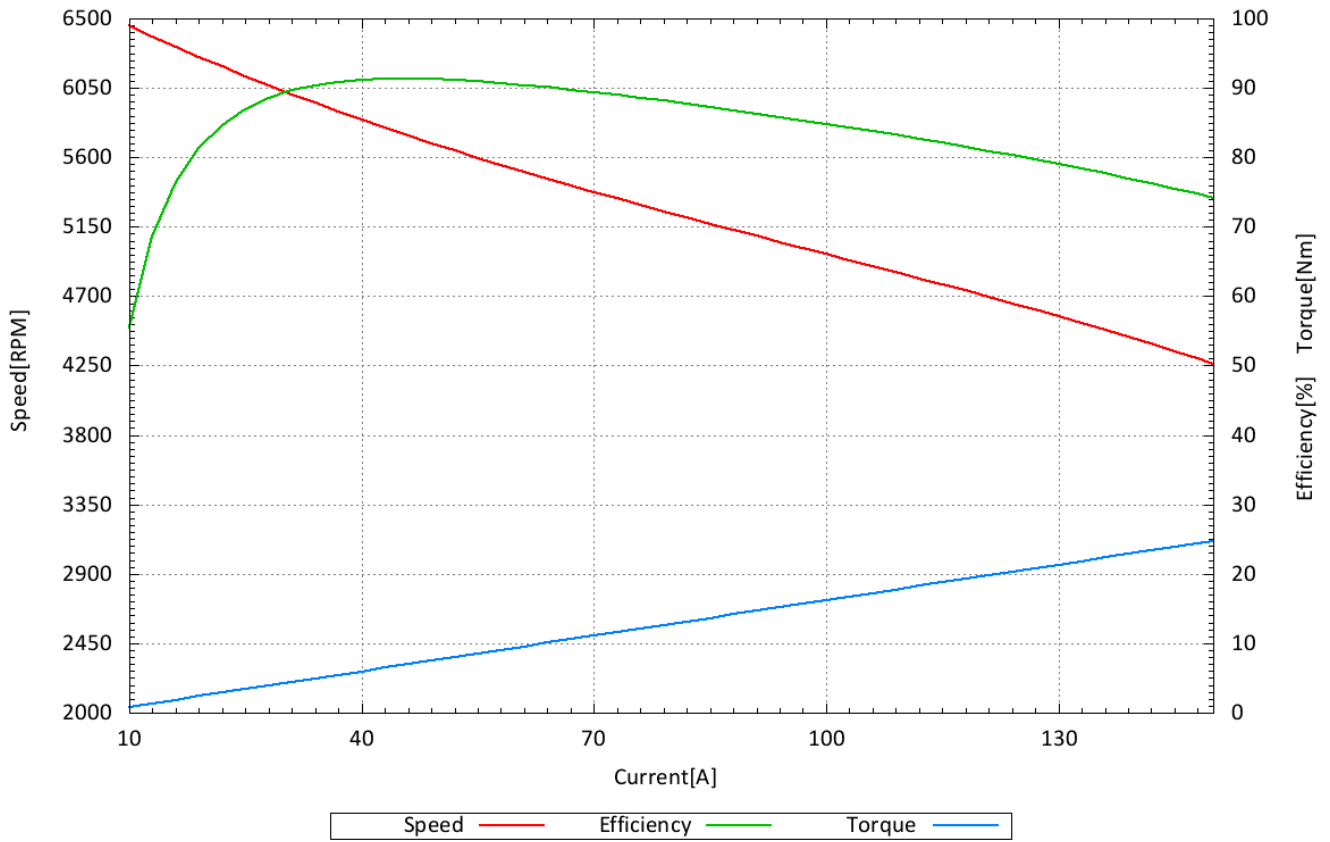
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_100V\_07032024





## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **110.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 7,025.8 [RPM]    lo: 5.4 [A]    kv: 64.7 [RPM/V]    kn: -16.72 [RPM/A]    kT: 17.09 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 109.9          | 10.0           | 7,100.1        | 1,099.0            | 586.6               | 78.9            | 53.38                          |
| 109.9          | 13.0           | 7,024.7        | 1,428.7            | 957.8               | 130.2           | 67.04                          |
| 109.9          | 16.0           | 6,951.5        | 1,758.4            | 1,321.2             | 181.5           | 75.14                          |
| 109.9          | 19.0           | 6,880.5        | 2,088.1            | 1,676.7             | 232.7           | 80.30                          |
| 109.9          | 22.0           | 6,811.5        | 2,417.8            | 2,025.8             | 284.0           | 83.79                          |
| 109.9          | 25.0           | 6,744.5        | 2,747.5            | 2,368.2             | 335.3           | 86.19                          |
| 109.9          | 28.0           | 6,679.4        | 3,077.2            | 2,704.1             | 386.6           | 87.88                          |
| 109.8          | 31.0           | 6,616.2        | 3,403.8            | 3,033.3             | 437.8           | 89.11                          |
| 109.8          | 34.0           | 6,554.7        | 3,733.2            | 3,357.2             | 489.1           | 89.93                          |
| 109.8          | 37.0           | 6,494.8        | 4,062.6            | 3,675.4             | 540.4           | 90.47                          |
| 109.8          | 40.0           | 6,436.6        | 4,392.0            | 3,988.3             | 591.7           | 90.81                          |
| 109.8          | 43.0           | 6,379.9        | 4,721.4            | 4,295.2             | 642.9           | 90.97                          |
| 109.8          | 46.0           | 6,324.6        | 5,050.8            | 4,597.8             | 694.2           | 91.03                          |
| 109.8          | 49.0           | 6,270.7        | 5,380.2            | 4,895.4             | 745.5           | 90.99                          |
| 109.7          | 52.0           | 6,218.0        | 5,704.4            | 5,188.3             | 796.8           | 90.95                          |
| 109.7          | 55.0           | 6,166.6        | 6,033.5            | 5,476.1             | 848.0           | 90.76                          |
| 109.7          | 58.0           | 6,116.3        | 6,362.6            | 5,760.0             | 899.3           | 90.53                          |
| 109.7          | 61.0           | 6,067.1        | 6,691.7            | 6,039.6             | 950.6           | 90.25                          |
| 109.7          | 64.0           | 6,018.8        | 7,020.8            | 6,314.2             | 1,001.8         | 89.94                          |
| 109.7          | 67.0           | 5,971.4        | 7,349.9            | 6,585.3             | 1,053.1         | 89.60                          |
| 109.6          | 70.0           | 5,924.8        | 7,672.0            | 6,852.2             | 1,104.4         | 89.31                          |
| 109.6          | 73.0           | 5,879.0        | 8,000.8            | 7,115.0             | 1,155.7         | 88.93                          |
| 109.6          | 76.0           | 5,833.8        | 8,329.6            | 7,373.1             | 1,206.9         | 88.52                          |
| 109.6          | 79.0           | 5,789.3        | 8,658.4            | 7,627.9             | 1,258.2         | 88.10                          |
| 109.6          | 82.0           | 5,745.2        | 8,987.2            | 7,878.4             | 1,309.5         | 87.66                          |
| 109.6          | 85.0           | 5,701.6        | 9,316.0            | 8,124.9             | 1,360.8         | 87.21                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 109.6          | 88.0           | 5,658.3        | 9,644.8            | 8,366.6             | 1,412.0         | 86.75                          |
| 109.5          | 91.0           | 5,615.3        | 9,964.5            | 8,604.7             | 1,463.3         | 86.35                          |
| 109.5          | 94.0           | 5,572.4        | 10,293.0           | 8,838.3             | 1,514.6         | 85.87                          |
| 109.5          | 97.0           | 5,529.7        | 10,621.5           | 9,067.6             | 1,565.9         | 85.37                          |
| 109.5          | 100.0          | 5,487.1        | 10,950.0           | 9,292.0             | 1,617.1         | 84.86                          |
| 109.5          | 103.0          | 5,444.4        | 11,278.5           | 9,512.2             | 1,668.4         | 84.34                          |
| 109.5          | 106.0          | 5,401.6        | 11,607.0           | 9,727.6             | 1,719.7         | 83.81                          |
| 109.5          | 109.0          | 5,358.6        | 11,935.5           | 9,938.0             | 1,771.0         | 83.26                          |
| 109.4          | 112.0          | 5,315.3        | 12,252.8           | 10,142.7            | 1,822.2         | 82.78                          |
| 109.4          | 115.0          | 5,271.7        | 12,581.0           | 10,342.7            | 1,873.5         | 82.21                          |
| 109.4          | 118.0          | 5,227.6        | 12,909.2           | 10,537.0            | 1,924.8         | 81.62                          |
| 109.4          | 121.0          | 5,183.1        | 13,237.4           | 10,725.2            | 1,976.0         | 81.02                          |
| 109.4          | 124.0          | 5,137.9        | 13,565.6           | 10,907.7            | 2,027.3         | 80.41                          |
| 109.4          | 127.0          | 5,092.1        | 13,893.8           | 11,084.0            | 2,078.6         | 79.78                          |
| 109.3          | 130.0          | 5,045.6        | 14,209.0           | 11,253.8            | 2,129.9         | 79.20                          |
| 109.3          | 133.0          | 4,998.3        | 14,536.9           | 11,416.3            | 2,181.1         | 78.53                          |
| 109.3          | 136.0          | 4,950.0        | 14,864.8           | 11,571.9            | 2,232.4         | 77.85                          |
| 109.3          | 139.0          | 4,900.8        | 15,192.7           | 11,720.2            | 2,283.7         | 77.14                          |
| 109.3          | 142.0          | 4,850.6        | 15,520.6           | 11,860.7            | 2,335.0         | 76.42                          |
| 109.3          | 145.0          | 4,799.2        | 15,848.5           | 11,992.4            | 2,386.2         | 75.67                          |
| 109.3          | 148.0          | 4,746.6        | 16,176.4           | 12,115.9            | 2,437.5         | 74.90                          |
| 109.2          | 151.0          | 4,692.7        | 16,489.2           | 12,230.4            | 2,488.8         | 74.17                          |

nl = rpm with no load

lo = current with no load

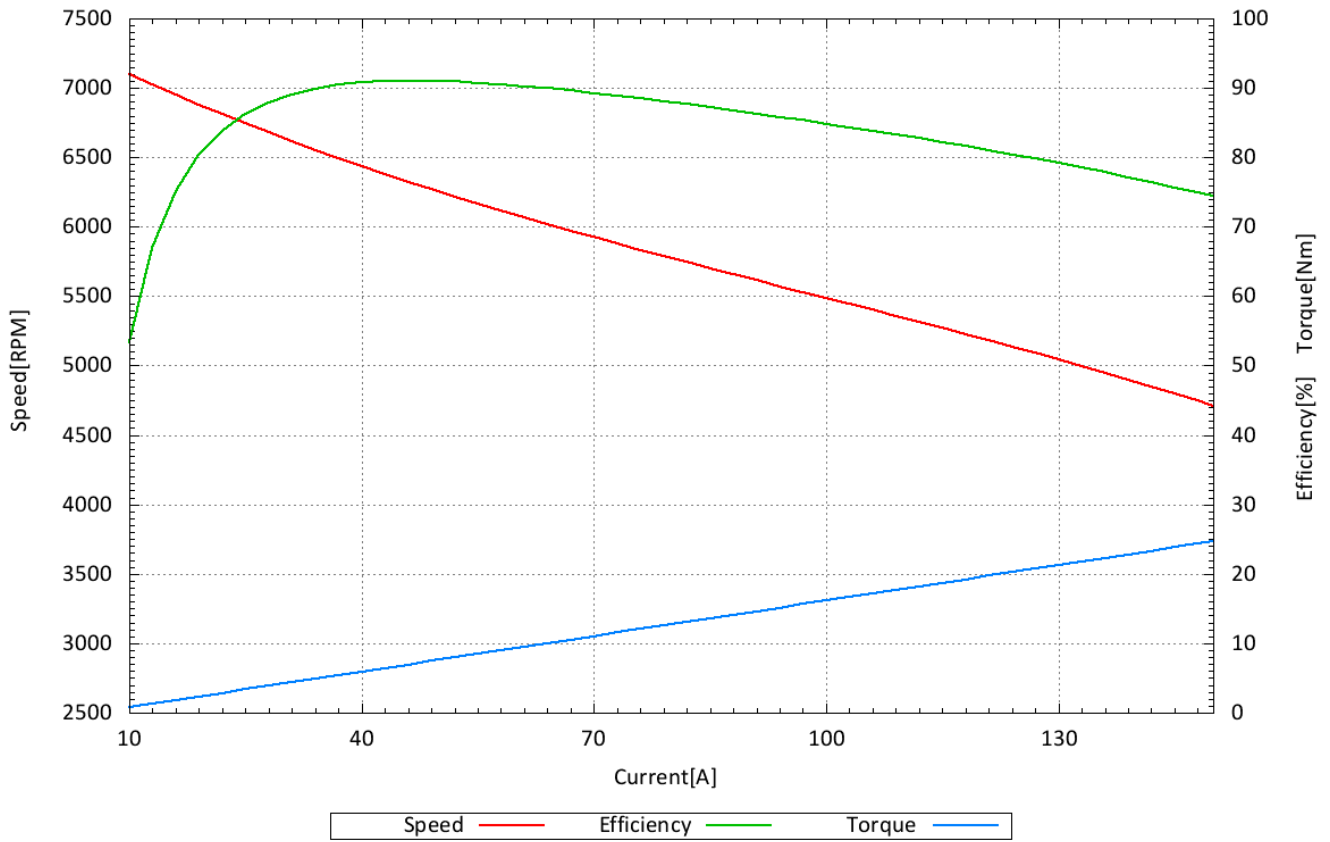
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_110V\_07032024



## Report calculated on Test Bench Results

Motor type: **NOVA 15-30-B10 P30**

Date: 07.03.2024

Bearing type: regular

Controller: Common ESC

### Measuring Parameter

Voltage: **120.0 [V]**

Throttle setting: 100%

### Calculated Motor Constants

nl: 7,661.1 [RPM]    lo: 5.6 [A]    kv: 64.7 [RPM/V]    kn: -18.25 [RPM/A]    kT: 17.09 [Ncm/A]

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 119.9          | 10.0           | 7,747.6        | 1,199.0            | 615.0               | 75.8            | 51.29                          |
| 119.9          | 13.0           | 7,665.9        | 1,558.7            | 1,019.5             | 127.0           | 65.41                          |
| 119.9          | 16.0           | 7,586.6        | 1,918.4            | 1,416.5             | 178.3           | 73.84                          |
| 119.9          | 19.0           | 7,509.7        | 2,278.1            | 1,805.6             | 229.6           | 79.26                          |
| 119.9          | 22.0           | 7,435.0        | 2,637.8            | 2,186.3             | 280.8           | 82.88                          |
| 119.9          | 25.0           | 7,362.4        | 2,997.5            | 2,560.5             | 332.1           | 85.42                          |
| 119.9          | 28.0           | 7,291.9        | 3,357.2            | 2,927.7             | 383.4           | 87.21                          |
| 119.8          | 31.0           | 7,223.3        | 3,713.8            | 3,288.2             | 434.7           | 88.54                          |
| 119.8          | 34.0           | 7,156.7        | 4,073.2            | 3,641.6             | 485.9           | 89.40                          |
| 119.8          | 37.0           | 7,091.9        | 4,432.6            | 3,989.6             | 537.2           | 90.01                          |
| 119.8          | 40.0           | 7,028.8        | 4,792.0            | 4,331.7             | 588.5           | 90.39                          |
| 119.8          | 43.0           | 6,967.3        | 5,151.4            | 4,668.1             | 639.8           | 90.62                          |
| 119.8          | 46.0           | 6,907.5        | 5,510.8            | 4,998.4             | 691.0           | 90.70                          |
| 119.8          | 49.0           | 6,849.0        | 5,870.2            | 5,324.0             | 742.3           | 90.69                          |
| 119.7          | 52.0           | 6,792.0        | 6,224.4            | 5,644.5             | 793.6           | 90.68                          |
| 119.7          | 55.0           | 6,736.3        | 6,583.5            | 5,960.1             | 844.9           | 90.53                          |
| 119.7          | 58.0           | 6,681.8        | 6,942.6            | 6,270.2             | 896.1           | 90.31                          |
| 119.7          | 61.0           | 6,628.5        | 7,301.7            | 6,576.2             | 947.4           | 90.06                          |
| 119.7          | 64.0           | 6,576.2        | 7,660.8            | 6,877.6             | 998.7           | 89.78                          |
| 119.7          | 67.0           | 6,524.8        | 8,019.9            | 7,173.7             | 1,049.9         | 89.45                          |
| 119.6          | 70.0           | 6,474.4        | 8,372.0            | 7,466.1             | 1,101.2         | 89.18                          |
| 119.6          | 73.0           | 6,424.7        | 8,730.8            | 7,753.9             | 1,152.5         | 88.81                          |
| 119.6          | 76.0           | 6,375.8        | 9,089.6            | 8,037.4             | 1,203.8         | 88.42                          |
| 119.6          | 79.0           | 6,327.5        | 9,448.4            | 8,315.8             | 1,255.0         | 88.01                          |
| 119.6          | 82.0           | 6,279.8        | 9,807.2            | 8,590.5             | 1,306.3         | 87.59                          |
| 119.6          | 85.0           | 6,232.5        | 10,166.0           | 8,860.6             | 1,357.6         | 87.16                          |

| Voltage<br>[V] | Current<br>[A] | Speed<br>[RPM] | Input Power<br>[W] | Output Power<br>[W] | Torque<br>[Ncm] | Efficiency <sup>1</sup><br>[%] |
|----------------|----------------|----------------|--------------------|---------------------|-----------------|--------------------------------|
| 119.6          | 88.0           | 6,185.6        | 10,524.8           | 9,126.2             | 1,408.9         | 86.71                          |
| 119.5          | 91.0           | 6,139.0        | 10,874.5           | 9,386.6             | 1,460.1         | 86.32                          |
| 119.5          | 94.0           | 6,092.6        | 11,233.0           | 9,643.0             | 1,511.4         | 85.84                          |
| 119.5          | 97.0           | 6,046.4        | 11,591.5           | 9,894.7             | 1,562.7         | 85.36                          |
| 119.5          | 100.0          | 6,000.2        | 11,950.0           | 10,141.4            | 1,614.0         | 84.87                          |
| 119.5          | 103.0          | 5,953.9        | 12,308.5           | 10,382.4            | 1,665.2         | 84.35                          |
| 119.5          | 106.0          | 5,907.5        | 12,667.0           | 10,618.8            | 1,716.5         | 83.83                          |
| 119.5          | 109.0          | 5,860.9        | 13,025.5           | 10,849.9            | 1,767.8         | 83.30                          |
| 119.4          | 112.0          | 5,814.0        | 13,372.8           | 11,075.4            | 1,819.1         | 82.82                          |
| 119.4          | 115.0          | 5,766.8        | 13,731.0           | 11,294.7            | 1,870.3         | 82.26                          |
| 119.4          | 118.0          | 5,719.1        | 14,089.2           | 11,508.5            | 1,921.6         | 81.68                          |
| 119.4          | 121.0          | 5,670.8        | 14,447.4           | 11,716.0            | 1,972.9         | 81.09                          |
| 119.4          | 124.0          | 5,621.9        | 14,805.6           | 11,916.4            | 2,024.1         | 80.49                          |
| 119.4          | 127.0          | 5,572.3        | 15,163.8           | 12,110.6            | 2,075.4         | 79.87                          |
| 119.3          | 130.0          | 5,521.9        | 15,509.0           | 12,297.7            | 2,126.7         | 79.29                          |
| 119.3          | 133.0          | 5,470.6        | 15,866.9           | 12,477.3            | 2,178.0         | 78.64                          |
| 119.3          | 136.0          | 5,418.3        | 16,224.8           | 12,648.5            | 2,229.2         | 77.96                          |
| 119.3          | 139.0          | 5,365.0        | 16,582.7           | 12,812.3            | 2,280.5         | 77.26                          |
| 119.3          | 142.0          | 5,310.6        | 16,940.6           | 12,967.7            | 2,331.8         | 76.55                          |
| 119.3          | 145.0          | 5,254.9        | 17,298.5           | 13,114.0            | 2,383.1         | 75.81                          |
| 119.3          | 148.0          | 5,198.0        | 17,656.4           | 13,250.7            | 2,434.3         | 75.05                          |
| 119.2          | 151.0          | 5,139.6        | 17,999.2           | 13,377.9            | 2,485.6         | 74.33                          |

nl = rpm with no load

lo = current with no load

kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

<sup>1</sup> incl. Controller

HP875\_30\_B10\_P30\_120V\_07032024

