

Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **40.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 2,452.9 [RPM] lo: 4.4 [A] kv: 62.0 [RPM/V] kn: -6.56 [RPM/A] kT: 17.50 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
39.9	20.0	2,370.8	798.0	678.3	273.2	85.00
39.9	24.0	2,336.1	957.6	839.6	343.2	87.68
39.9	28.0	2,302.5	1,117.2	996.3	413.2	89.18
39.8	32.0	2,269.8	1,273.6	1,148.3	483.1	90.16
39.8	36.0	2,238.0	1,432.8	1,296.3	553.1	90.47
39.8	40.0	2,207.0	1,592.0	1,440.1	623.1	90.46
39.8	44.0	2,176.8	1,751.2	1,579.9	693.1	90.22
39.8	48.0	2,147.4	1,910.4	1,716.0	763.1	89.83
39.7	52.0	2,118.7	2,064.4	1,848.4	833.1	89.54
39.7	56.0	2,090.7	2,223.2	1,977.0	903.0	88.93
39.7	60.0	2,063.3	2,382.0	2,102.3	973.0	88.26
39.7	64.0	2,036.4	2,540.8	2,224.2	1,043.0	87.54
39.7	68.0	2,010.1	2,699.6	2,342.8	1,113.0	86.78
39.7	72.0	1,984.2	2,858.4	2,458.1	1,183.0	86.00
39.6	76.0	1,958.7	3,009.6	2,570.1	1,253.0	85.40
39.6	80.0	1,933.7	3,168.0	2,678.8	1,322.9	84.56
39.6	84.0	1,908.9	3,326.4	2,784.4	1,392.9	83.71
39.6	88.0	1,884.5	3,484.8	2,887.0	1,462.9	82.84
39.6	92.0	1,860.2	3,643.2	2,986.1	1,532.9	81.96
39.5	96.0	1,836.2	3,792.0	3,082.2	1,602.9	81.28
39.5	100.0	1,812.3	3,950.0	3,174.7	1,672.8	80.37
39.5	104.0	1,788.5	4,108.0	3,264.1	1,742.8	79.46
39.5	108.0	1,764.7	4,266.0	3,350.0	1,812.8	78.53
39.5	112.0	1,741.0	4,424.0	3,432.7	1,882.8	77.59
39.4	116.0	1,717.2	4,570.4	3,511.6	1,952.8	76.83
39.4	120.0	1,693.3	4,728.0	3,586.9	2,022.8	75.86

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
39.4	124.0	1,669.2	4,885.6	3,658.0	2,092.7	74.87
39.4	128.0	1,645.0	5,043.2	3,725.6	2,162.7	73.87
39.4	132.0	1,620.5	5,200.8	3,788.9	2,232.7	72.85
39.3	136.0	1,595.8	5,344.8	3,848.1	2,302.7	72.00
39.3	140.0	1,570.7	5,502.0	3,902.7	2,372.7	70.93
39.3	144.0	1,545.2	5,659.2	3,952.6	2,442.7	69.84
39.3	148.0	1,519.3	5,816.4	3,997.6	2,512.6	68.73
39.3	152.0	1,493.0	5,973.6	4,037.8	2,582.6	67.59
39.2	156.0	1,466.1	6,115.2	4,072.5	2,652.6	66.60
39.2	160.0	1,438.6	6,272.0	4,101.6	2,722.6	65.40
39.2	164.0	1,410.6	6,428.8	4,125.2	2,792.6	64.17
39.2	168.0	1,381.8	6,585.6	4,142.2	2,862.6	62.90
39.2	172.0	1,352.4	6,742.4	4,153.1	2,932.5	61.60
39.1	176.0	1,322.2	6,881.6	4,157.3	3,002.5	60.41
39.1	180.0	1,291.2	7,038.0	4,154.5	3,072.5	59.03

nl = rpm with no load

lo = current with no load

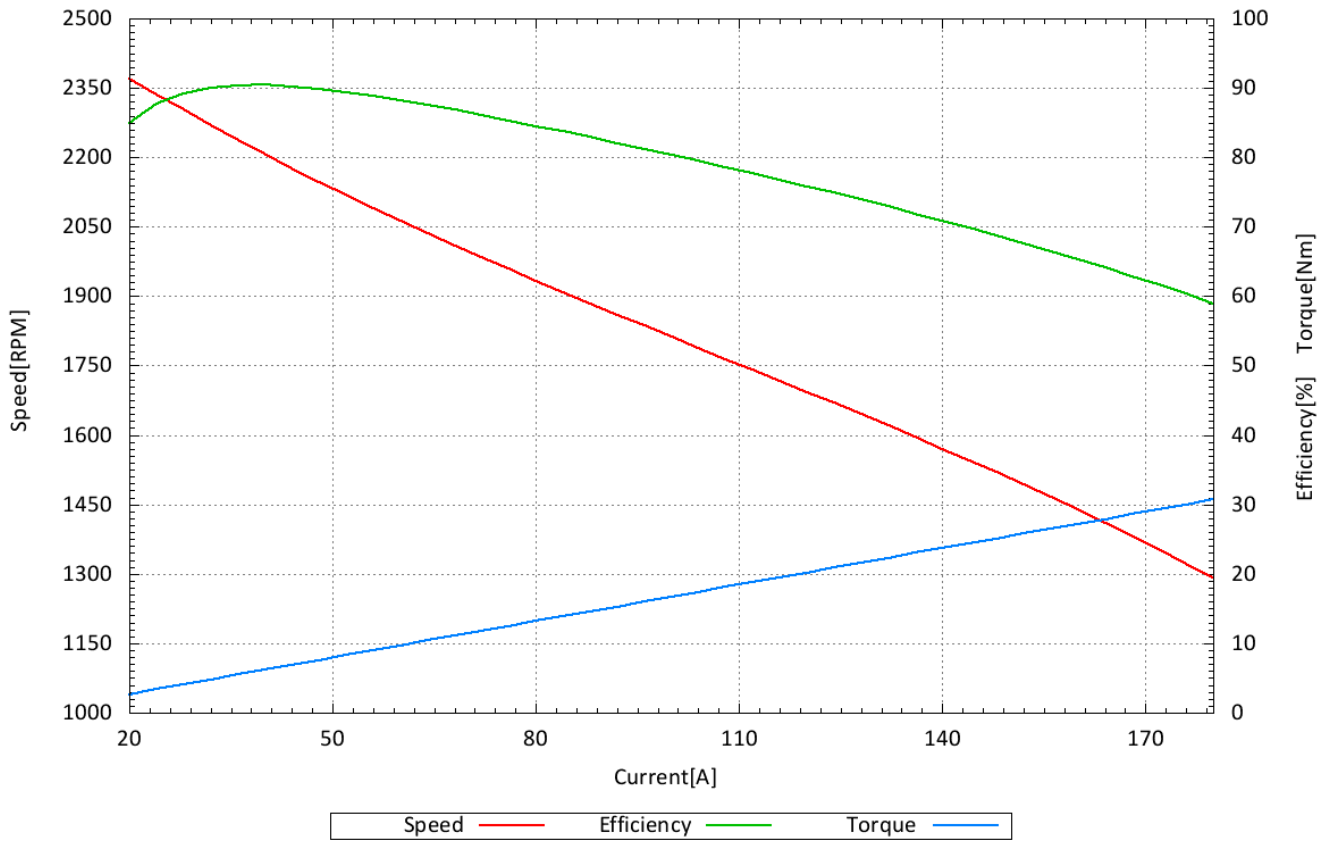
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_40V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **50.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 3,051.5 [RPM] lo: 5.0 [A] kv: 61.8 [RPM/V] kn: -7.35 [RPM/A] kT: 17.75 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
49.9	20.0	2,968.1	998.0	828.6	266.6	83.03
49.9	24.0	2,928.8	1,197.6	1,035.4	337.6	86.46
49.9	28.0	2,890.6	1,397.2	1,237.1	408.7	88.54
49.9	32.0	2,853.5	1,596.8	1,433.4	479.7	89.77
49.9	36.0	2,817.4	1,796.4	1,624.8	550.7	90.45
49.8	40.0	2,782.3	1,992.0	1,811.4	621.7	90.93
49.8	44.0	2,748.1	2,191.2	1,993.5	692.7	90.98
49.8	48.0	2,714.8	2,390.4	2,171.1	763.7	90.83
49.8	52.0	2,682.2	2,589.6	2,344.8	834.8	90.55
49.8	56.0	2,650.5	2,788.8	2,514.1	905.8	90.15
49.8	60.0	2,619.4	2,988.0	2,679.4	976.8	89.67
49.7	64.0	2,589.0	3,180.8	2,840.8	1,047.8	89.31
49.7	68.0	2,559.3	3,379.6	2,998.5	1,118.8	88.72
49.7	72.0	2,530.0	3,578.4	3,152.3	1,189.8	88.09
49.7	76.0	2,501.3	3,777.2	3,302.7	1,260.9	87.44
49.7	80.0	2,473.1	3,976.0	3,449.4	1,331.9	86.76
49.7	84.0	2,445.2	4,174.8	3,592.3	1,402.9	86.05
49.7	88.0	2,417.7	4,373.6	3,731.6	1,473.9	85.32
49.6	92.0	2,390.5	4,563.2	3,867.4	1,544.9	84.75
49.6	96.0	2,363.6	4,761.6	3,999.6	1,615.9	84.00
49.6	100.0	2,336.8	4,960.0	4,128.2	1,687.0	83.23
49.6	104.0	2,310.2	5,158.4	4,253.0	1,758.0	82.45
49.6	108.0	2,283.7	5,356.8	4,374.0	1,829.0	81.65
49.6	112.0	2,257.3	5,555.2	4,491.3	1,900.0	80.85
49.5	116.0	2,230.8	5,742.0	4,604.4	1,971.0	80.19
49.5	120.0	2,204.3	5,940.0	4,713.6	2,042.0	79.35

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
49.5	124.0	2,177.7	6,138.0	4,818.9	2,113.1	78.51
49.5	128.0	2,150.9	6,336.0	4,919.5	2,184.1	77.64
49.5	132.0	2,123.9	6,534.0	5,015.7	2,255.1	76.76
49.5	136.0	2,096.7	6,732.0	5,107.3	2,326.1	75.87
49.4	140.0	2,069.1	6,916.0	5,193.9	2,397.1	75.10
49.4	144.0	2,041.2	7,113.6	5,275.7	2,468.1	74.16
49.4	148.0	2,012.9	7,311.2	5,352.4	2,539.2	73.21
49.4	152.0	1,984.1	7,508.8	5,423.3	2,610.2	72.23
49.4	156.0	1,954.8	7,706.4	5,488.6	2,681.2	71.22
49.4	160.0	1,924.9	7,904.0	5,547.7	2,752.2	70.19
49.4	164.0	1,894.4	8,101.6	5,600.7	2,823.2	69.13
49.3	168.0	1,863.2	8,282.4	5,647.0	2,894.2	68.18
49.3	172.0	1,831.3	8,479.6	5,686.7	2,965.3	67.06
49.3	176.0	1,798.7	8,676.8	5,719.2	3,036.3	65.91
49.3	180.0	1,765.2	8,874.0	5,743.9	3,107.3	64.73

nl = rpm with no load

lo = current with no load

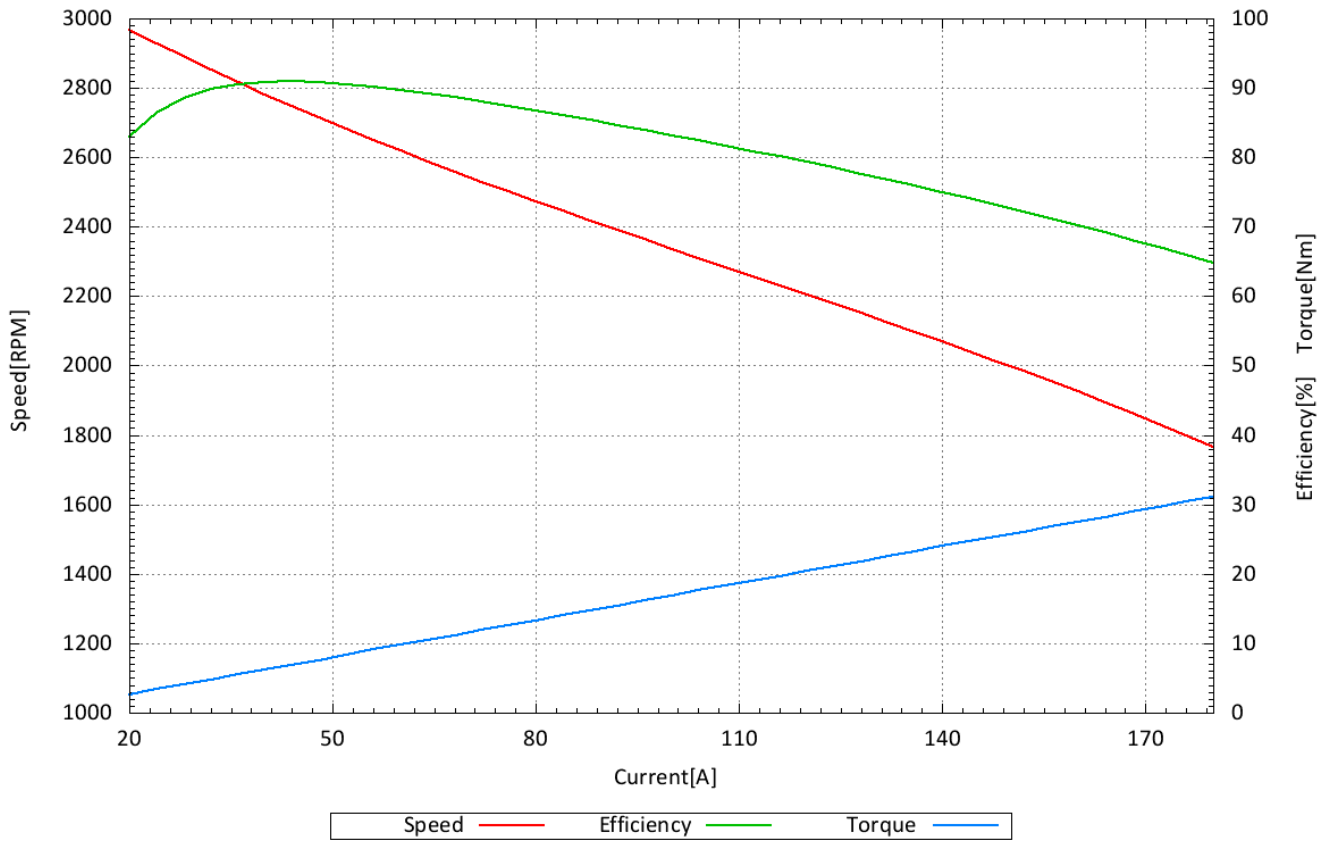
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_50V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **60.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 3,647.0 [RPM] lo: 5.1 [A] kv: 61.5 [RPM/V] kn: -8.41 [RPM/A] kT: 17.77 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
59.9	20.0	3,561.6	1,198.0	984.6	264.0	82.19
59.9	24.0	3,516.3	1,437.6	1,233.9	335.1	85.83
59.9	28.0	3,472.3	1,677.2	1,477.0	406.2	88.06
59.8	32.0	3,429.5	1,913.6	1,714.2	477.3	89.58
59.8	36.0	3,388.0	2,152.8	1,945.3	548.3	90.36
59.8	40.0	3,347.6	2,392.0	2,171.4	619.4	90.78
59.8	44.0	3,308.2	2,631.2	2,392.1	690.5	90.91
59.8	48.0	3,269.9	2,870.4	2,607.9	761.6	90.85
59.7	52.0	3,232.6	3,104.4	2,818.5	832.6	90.79
59.7	56.0	3,196.2	3,343.2	3,024.7	903.7	90.47
59.7	60.0	3,160.6	3,582.0	3,226.4	974.8	90.07
59.7	64.0	3,125.9	3,820.8	3,423.7	1,045.9	89.61
59.7	68.0	3,091.9	4,059.6	3,616.3	1,116.9	89.08
59.6	72.0	3,058.5	4,291.2	3,805.0	1,188.0	88.67
59.6	76.0	3,025.8	4,529.6	3,989.6	1,259.1	88.08
59.6	80.0	2,993.7	4,768.0	4,170.2	1,330.2	87.46
59.6	84.0	2,962.1	5,006.4	4,346.4	1,401.2	86.82
59.6	88.0	2,930.9	5,244.8	4,518.8	1,472.3	86.16
59.5	92.0	2,900.2	5,474.0	4,687.4	1,543.4	85.63
59.5	96.0	2,869.8	5,712.0	4,852.0	1,614.5	84.94
59.5	100.0	2,839.7	5,950.0	5,012.2	1,685.5	84.24
59.5	104.0	2,809.8	6,188.0	5,168.6	1,756.6	83.53
59.5	108.0	2,780.1	6,426.0	5,321.0	1,827.7	82.80
59.4	112.0	2,750.5	6,652.8	5,469.1	1,898.8	82.21
59.4	116.0	2,721.0	6,890.4	5,612.8	1,969.8	81.46
59.4	120.0	2,691.5	7,128.0	5,752.3	2,040.9	80.70

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
59.4	124.0	2,661.9	7,365.6	5,887.3	2,112.0	79.93
59.4	128.0	2,632.2	7,603.2	6,017.6	2,183.1	79.15
59.3	132.0	2,602.3	7,827.6	6,142.7	2,254.1	78.47
59.3	136.0	2,572.3	8,064.8	6,263.4	2,325.2	77.66
59.3	140.0	2,541.9	8,302.0	6,378.6	2,396.3	76.83
59.3	144.0	2,511.2	8,539.2	6,488.6	2,467.4	75.99
59.3	148.0	2,480.1	8,776.4	6,592.6	2,538.4	75.12
59.2	152.0	2,448.6	8,998.4	6,691.2	2,609.5	74.36
59.2	156.0	2,416.5	9,235.2	6,783.4	2,680.6	73.45
59.2	160.0	2,383.9	9,472.0	6,869.4	2,751.7	72.52
59.2	164.0	2,350.7	9,708.8	6,948.5	2,822.7	71.57
59.2	168.0	2,316.8	9,945.6	7,020.8	2,893.8	70.59
59.1	172.0	2,282.2	10,165.2	7,085.9	2,964.9	69.71
59.1	176.0	2,246.7	10,401.6	7,142.9	3,036.0	68.67
59.1	180.0	2,210.4	10,638.0	7,191.9	3,107.0	67.61

nl = rpm with no load

lo = current with no load

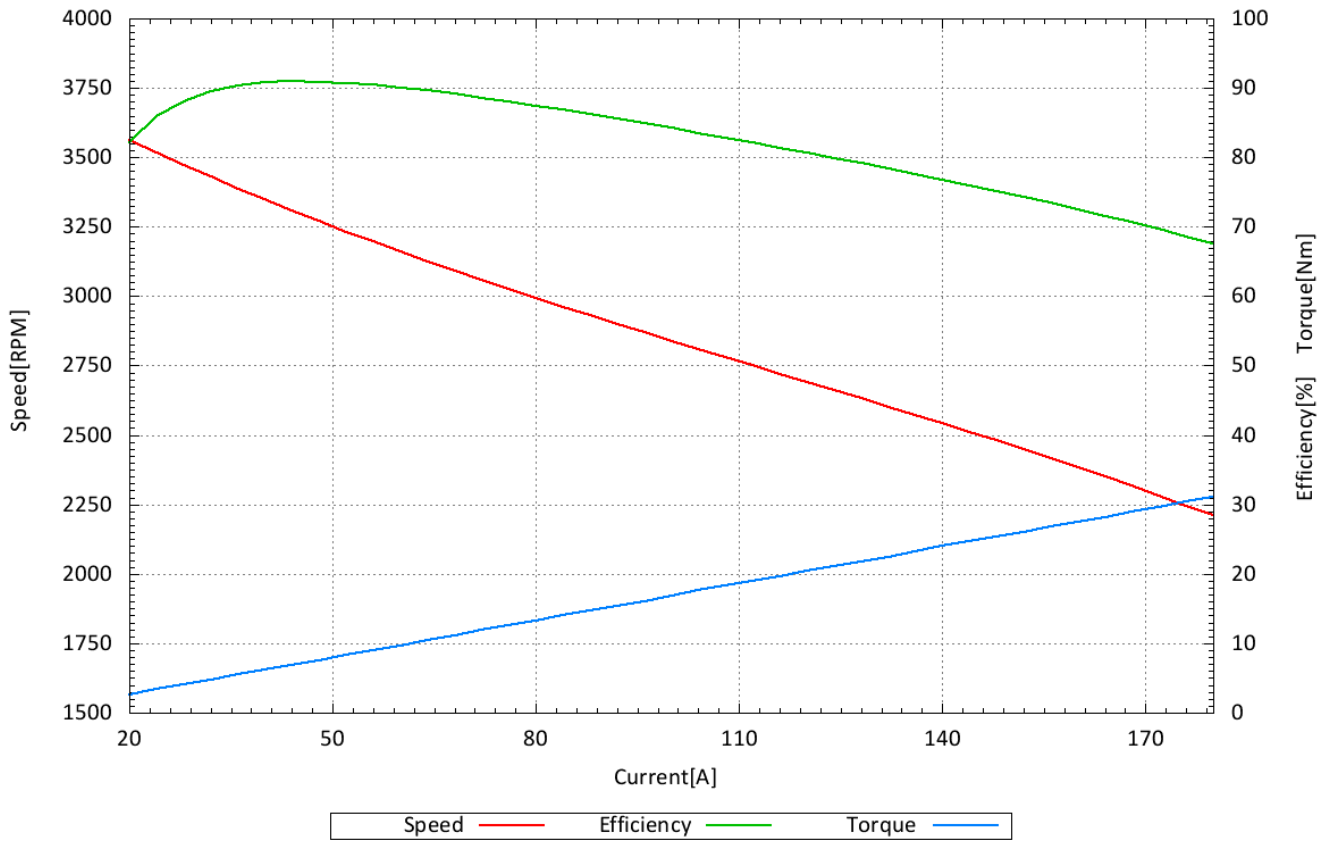
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_60V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **70.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 4,243.1 [RPM] lo: 5.6 [A] kv: 61.4 [RPM/V] kn: -9.17 [RPM/A] kT: 17.95 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
69.9	20.0	4,155.5	1,398.0	1,122.3	257.9	80.28
69.9	24.0	4,105.4	1,677.6	1,417.4	329.7	84.49
69.9	28.0	4,056.7	1,957.2	1,705.6	401.5	87.15
69.9	32.0	4,009.6	2,236.8	1,987.3	473.3	88.85
69.9	36.0	3,963.7	2,516.4	2,262.6	545.1	89.91
69.9	40.0	3,919.2	2,796.0	2,531.9	616.9	90.55
69.8	44.0	3,875.9	3,071.2	2,795.3	688.7	91.02
69.8	48.0	3,833.8	3,350.4	3,053.2	760.5	91.13
69.8	52.0	3,792.8	3,629.6	3,305.7	832.3	91.08
69.8	56.0	3,752.8	3,908.8	3,553.0	904.1	90.90
69.8	60.0	3,713.8	4,188.0	3,795.4	975.9	90.62
69.8	64.0	3,675.7	4,467.2	4,032.8	1,047.7	90.28
69.8	68.0	3,638.5	4,746.4	4,265.6	1,119.5	89.87
69.7	72.0	3,602.1	5,018.4	4,493.7	1,191.3	89.54
69.7	76.0	3,566.4	5,297.2	4,717.3	1,263.1	89.05
69.7	80.0	3,531.3	5,576.0	4,936.4	1,334.9	88.53
69.7	84.0	3,496.9	5,854.8	5,151.3	1,406.7	87.98
69.7	88.0	3,463.0	6,133.6	5,361.7	1,478.5	87.42
69.7	92.0	3,429.6	6,412.4	5,567.9	1,550.3	86.83
69.7	96.0	3,396.5	6,691.2	5,769.5	1,622.1	86.23
69.6	100.0	3,363.9	6,960.0	5,967.0	1,693.9	85.73
69.6	104.0	3,331.5	7,238.4	6,160.1	1,765.7	85.10
69.6	108.0	3,299.3	7,516.8	6,348.6	1,837.5	84.46
69.6	112.0	3,267.3	7,795.2	6,532.7	1,909.3	83.80
69.6	116.0	3,235.3	8,073.6	6,712.0	1,981.1	83.13
69.6	120.0	3,203.4	8,352.0	6,886.6	2,052.9	82.46

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
69.6	124.0	3,171.5	8,630.4	7,056.5	2,124.7	81.76
69.5	128.0	3,139.4	8,896.0	7,221.2	2,196.5	81.17
69.5	132.0	3,107.2	9,174.0	7,380.7	2,268.3	80.45
69.5	136.0	3,074.8	9,452.0	7,534.9	2,340.1	79.72
69.5	140.0	3,042.1	9,730.0	7,683.5	2,411.9	78.97
69.5	144.0	3,009.0	10,008.0	7,826.2	2,483.7	78.20
69.5	148.0	2,975.5	10,286.0	7,962.8	2,555.5	77.41
69.5	152.0	2,941.6	10,564.0	8,093.2	2,627.3	76.61
69.4	156.0	2,907.1	10,826.4	8,216.9	2,699.1	75.90
69.4	160.0	2,871.9	11,104.0	8,333.3	2,770.9	75.05
69.4	164.0	2,836.1	11,381.6	8,442.7	2,842.7	74.18
69.4	168.0	2,799.6	11,659.2	8,544.5	2,914.5	73.29
69.4	172.0	2,762.3	11,936.8	8,638.4	2,986.3	72.37
69.4	176.0	2,724.1	12,214.4	8,723.8	3,058.1	71.42
69.4	180.0	2,685.0	12,492.0	8,800.4	3,129.9	70.45

nl = rpm with no load

lo = current with no load

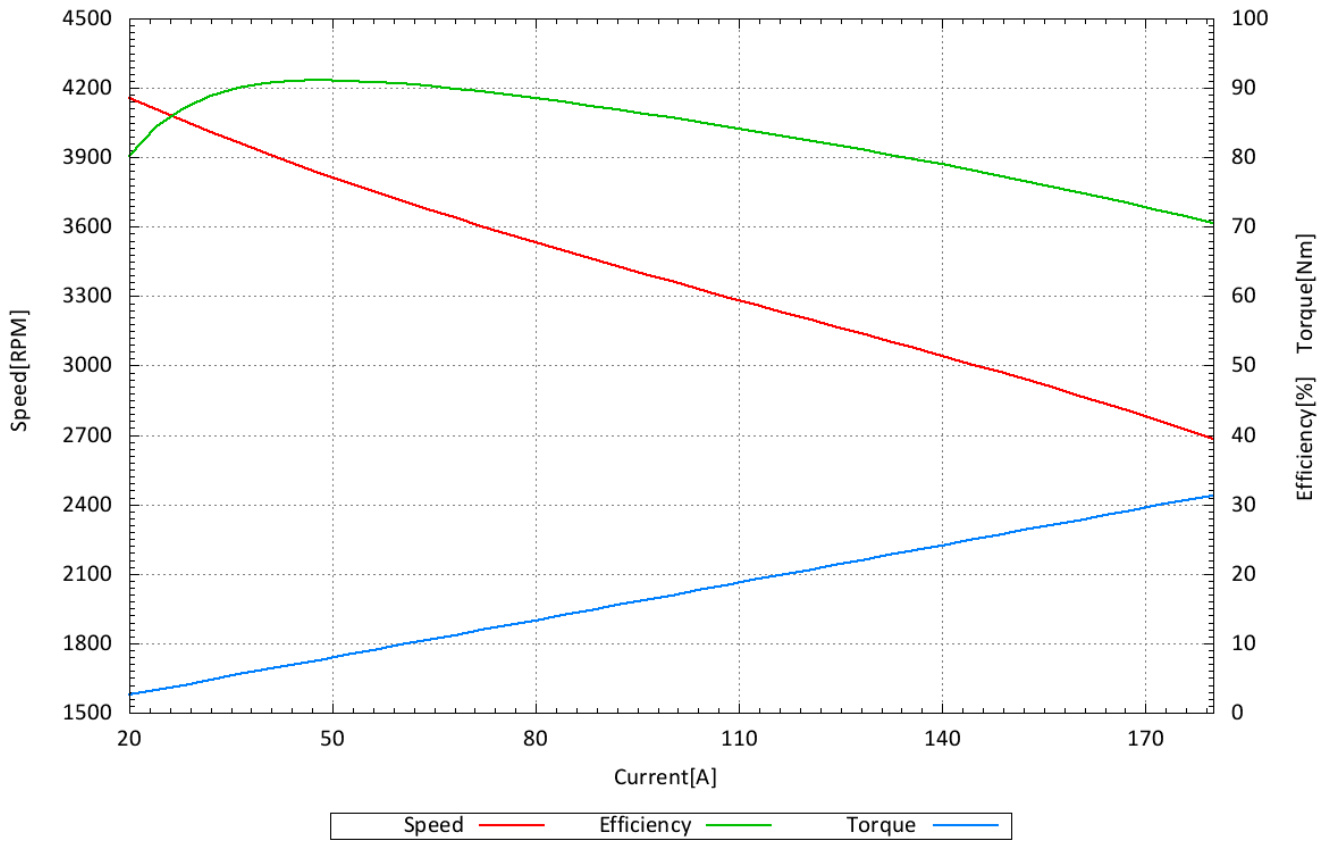
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_70V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **80.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 4,798.6 [RPM] lo: 6.5 [A] kv: 60.8 [RPM/V] kn: -9.67 [RPM/A] kT: 18.17 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
79.9	20.0	4,730.1	1,598.0	1,216.0	245.5	76.10
79.9	24.0	4,675.6	1,917.6	1,557.5	318.1	81.22
79.9	28.0	4,622.8	2,237.2	1,891.9	390.8	84.56
79.9	32.0	4,571.6	2,556.8	2,218.9	463.5	86.79
79.9	36.0	4,521.9	2,876.4	2,539.1	536.2	88.27
79.8	40.0	4,473.6	3,192.0	2,852.1	608.8	89.35
79.8	44.0	4,426.7	3,511.2	3,159.2	681.5	89.97
79.8	48.0	4,381.0	3,830.4	3,460.1	754.2	90.33
79.8	52.0	4,336.6	4,149.6	3,755.2	826.9	90.50
79.8	56.0	4,293.4	4,468.8	4,044.2	899.5	90.50
79.8	60.0	4,251.3	4,788.0	4,328.2	972.2	90.40
79.7	64.0	4,210.2	5,100.8	4,606.9	1,044.9	90.32
79.7	68.0	4,170.1	5,419.6	4,880.5	1,117.6	90.05
79.7	72.0	4,130.8	5,738.4	5,149.0	1,190.3	89.73
79.7	76.0	4,092.4	6,057.2	5,412.2	1,262.9	89.35
79.7	80.0	4,054.7	6,376.0	5,671.1	1,335.6	88.94
79.7	84.0	4,017.8	6,694.8	5,925.3	1,408.3	88.51
79.7	88.0	3,981.4	7,013.6	6,174.8	1,481.0	88.04
79.6	92.0	3,945.6	7,323.2	6,419.2	1,553.6	87.66
79.6	96.0	3,910.3	7,641.6	6,659.5	1,626.3	87.15
79.6	100.0	3,875.4	7,960.0	6,895.1	1,699.0	86.62
79.6	104.0	3,840.8	8,278.4	7,125.9	1,771.7	86.08
79.6	108.0	3,806.5	8,596.8	7,351.7	1,844.3	85.52
79.6	112.0	3,772.5	8,915.2	7,573.2	1,917.0	84.95
79.5	116.0	3,738.5	9,222.0	7,789.6	1,989.7	84.47
79.5	120.0	3,704.7	9,540.0	8,001.2	2,062.4	83.87

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
79.5	124.0	3,670.8	9,858.0	8,207.4	2,135.1	83.26
79.5	128.0	3,636.9	10,176.0	8,408.1	2,207.7	82.63
79.5	132.0	3,602.8	10,494.0	8,603.6	2,280.4	81.99
79.5	136.0	3,568.6	10,812.0	8,793.6	2,353.1	81.33
79.5	140.0	3,534.1	11,130.0	8,977.6	2,425.8	80.66
79.4	144.0	3,499.2	11,433.6	9,155.0	2,498.4	80.07
79.4	148.0	3,464.0	11,751.2	9,326.6	2,571.1	79.37
79.4	152.0	3,428.2	12,068.8	9,491.2	2,643.8	78.64
79.4	156.0	3,392.0	12,386.4	9,649.3	2,716.5	77.90
79.4	160.0	3,355.1	12,704.0	9,799.4	2,789.1	77.14
79.4	164.0	3,317.5	13,021.6	9,942.1	2,861.8	76.35
79.3	168.0	3,279.2	13,322.4	10,077.0	2,934.5	75.64
79.3	172.0	3,240.1	13,639.6	10,203.5	3,007.2	74.81
79.3	176.0	3,200.1	13,956.8	10,320.8	3,079.8	73.95
79.3	180.0	3,159.1	14,274.0	10,429.1	3,152.5	73.06

nl = rpm with no load

lo = current with no load

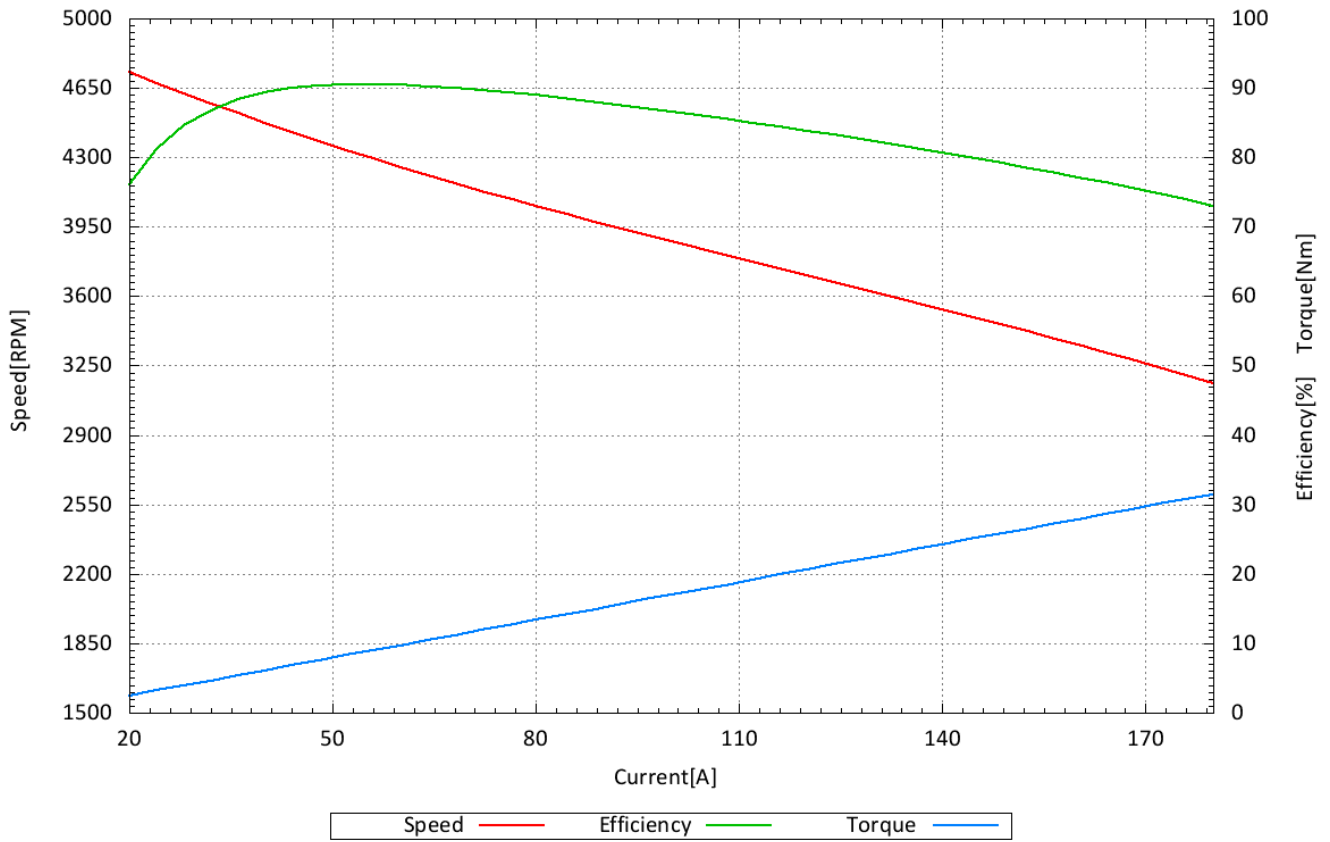
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_80V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **90.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 5,413.5 [RPM] lo: 5.7 [A] kv: 60.8 [RPM/V] kn: -10.54 [RPM/A] kT: 18.17 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
89.9	20.0	5,336.4	1,798.0	1,455.2	260.4	80.93
89.9	24.0	5,275.7	2,157.6	1,840.3	333.1	85.29
89.9	28.0	5,216.9	2,517.2	2,216.9	405.8	88.07
89.8	32.0	5,160.0	2,873.6	2,585.1	478.4	89.96
89.8	36.0	5,104.7	3,232.8	2,946.0	551.1	91.13
89.8	40.0	5,051.2	3,592.0	3,299.7	623.8	91.86
89.8	44.0	4,999.2	3,951.2	3,646.3	696.5	92.28
89.8	48.0	4,948.7	4,310.4	3,986.2	769.2	92.48
89.7	52.0	4,899.6	4,664.4	4,319.7	841.9	92.61
89.7	56.0	4,851.9	5,023.2	4,647.0	914.6	92.51
89.7	60.0	4,805.5	5,382.0	4,968.4	987.3	92.32
89.7	64.0	4,760.2	5,740.8	5,284.0	1,060.0	92.04
89.7	68.0	4,716.1	6,099.6	5,594.1	1,132.7	91.71
89.6	72.0	4,673.0	6,451.2	5,898.2	1,205.3	91.43
89.6	76.0	4,630.8	6,809.6	6,197.5	1,278.0	91.01
89.6	80.0	4,589.5	7,168.0	6,491.6	1,350.7	90.56
89.6	84.0	4,549.1	7,526.4	6,780.8	1,423.4	90.09
89.6	88.0	4,509.3	7,884.8	7,064.8	1,496.1	89.60
89.5	92.0	4,470.2	8,234.0	7,343.8	1,568.8	89.19
89.5	96.0	4,431.7	8,592.0	7,618.0	1,641.5	88.66
89.5	100.0	4,393.6	8,950.0	7,887.0	1,714.2	88.12
89.5	104.0	4,356.0	9,308.0	8,151.1	1,786.9	87.57
89.5	108.0	4,318.7	9,666.0	8,409.6	1,859.5	87.00
89.4	112.0	4,281.6	10,012.8	8,663.4	1,932.2	86.52
89.4	116.0	4,244.8	10,370.4	8,912.1	2,004.9	85.94
89.4	120.0	4,208.0	10,728.0	9,155.2	2,077.6	85.34

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
89.4	124.0	4,171.3	11,085.6	9,392.9	2,150.3	84.73
89.4	128.0	4,134.4	11,443.2	9,624.6	2,223.0	84.11
89.4	132.0	4,097.5	11,800.8	9,850.6	2,295.7	83.47
89.3	136.0	4,060.3	12,144.8	10,070.3	2,368.4	82.92
89.3	140.0	4,022.9	12,502.0	10,283.8	2,441.1	82.26
89.3	144.0	3,985.1	12,859.2	10,490.1	2,513.7	81.58
89.3	148.0	3,946.8	13,216.4	10,689.8	2,586.4	80.88
89.3	152.0	3,908.0	13,573.6	10,882.2	2,659.1	80.17
89.2	156.0	3,868.7	13,915.2	11,067.3	2,731.8	79.53
89.2	160.0	3,828.6	14,272.0	11,244.1	2,804.5	78.78
89.2	164.0	3,787.8	14,628.8	11,412.6	2,877.2	78.01
89.2	168.0	3,746.1	14,985.6	11,572.2	2,949.9	77.22
89.2	172.0	3,703.5	15,342.4	11,722.5	3,022.6	76.41
89.1	176.0	3,659.9	15,681.6	11,863.2	3,095.3	75.65
89.1	180.0	3,615.3	16,038.0	11,993.8	3,168.0	74.78

nl = rpm with no load

lo = current with no load

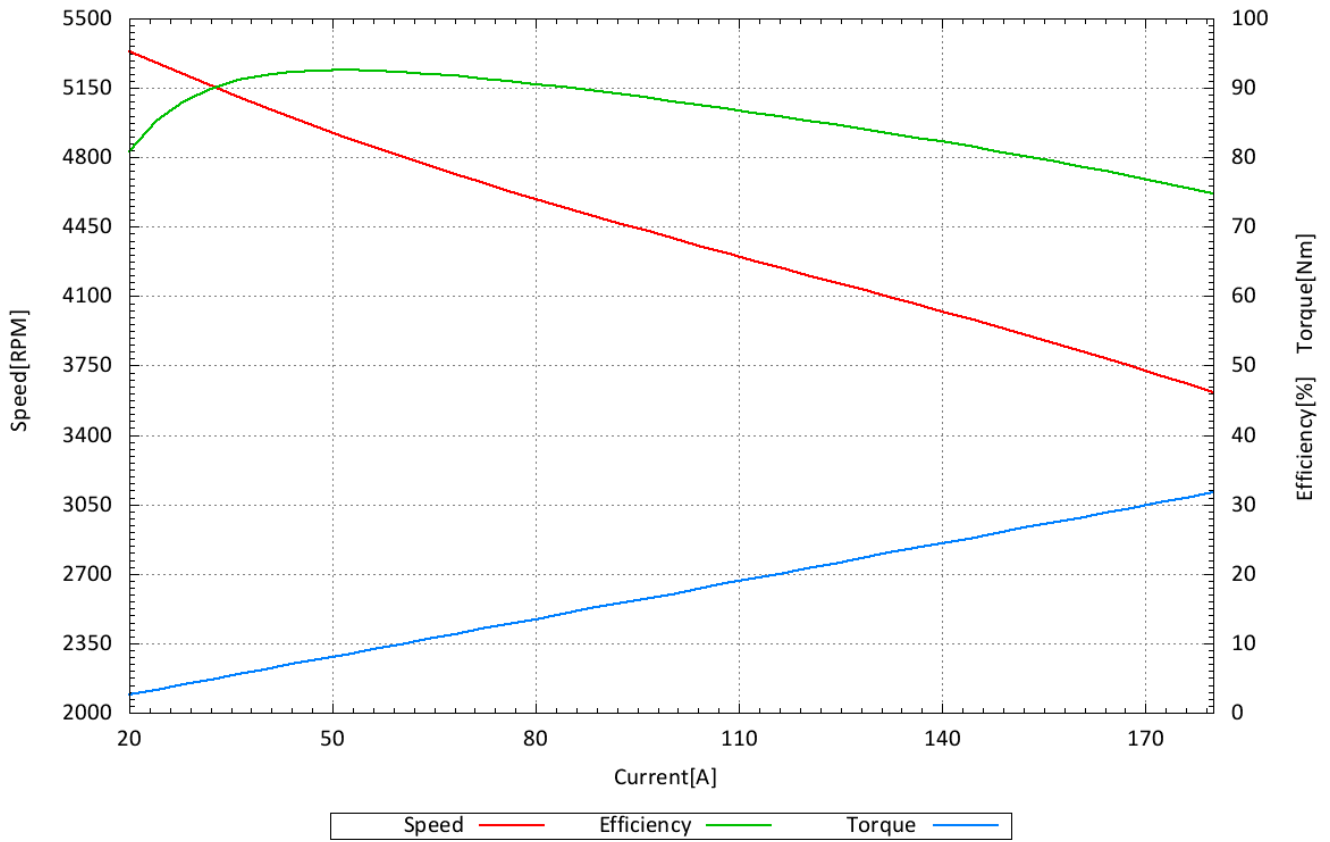
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_90V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **100.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 5,992.4 [RPM] lo: 6.4 [A] kv: 60.6 [RPM/V] kn: -11.40 [RPM/A] kT: 18.23 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
99.9	20.0	5,919.8	1,998.0	1,541.1	248.6	77.13
99.9	24.0	5,854.3	2,397.6	1,971.6	321.6	82.23
99.9	28.0	5,790.9	2,797.2	2,392.3	394.5	85.53
99.9	32.0	5,729.3	3,196.8	2,804.3	467.4	87.72
99.9	36.0	5,669.7	3,596.4	3,208.5	540.4	89.21
99.8	40.0	5,611.8	3,992.0	3,604.2	613.3	90.28
99.8	44.0	5,555.6	4,391.2	3,992.2	686.2	90.91
99.8	48.0	5,501.0	4,790.4	4,372.9	759.1	91.28
99.8	52.0	5,448.0	5,189.6	4,747.2	832.1	91.48
99.8	56.0	5,396.4	5,588.8	5,114.2	905.0	91.51
99.8	60.0	5,346.2	5,988.0	5,474.8	977.9	91.43
99.7	64.0	5,297.3	6,380.8	5,829.1	1,050.8	91.35
99.7	68.0	5,249.6	6,779.6	6,177.9	1,123.8	91.13
99.7	72.0	5,203.0	7,178.4	6,520.3	1,196.7	90.83
99.7	76.0	5,157.5	7,577.2	6,857.0	1,269.6	90.50
99.7	80.0	5,112.9	7,976.0	7,188.0	1,342.5	90.12
99.7	84.0	5,069.2	8,374.8	7,514.1	1,415.5	89.72
99.6	88.0	5,026.3	8,764.8	7,834.2	1,488.4	89.38
99.6	92.0	4,984.2	9,163.2	8,149.1	1,561.3	88.93
99.6	96.0	4,942.7	9,561.6	8,458.6	1,634.2	88.46
99.6	100.0	4,901.7	9,960.0	8,763.1	1,707.2	87.98
99.6	104.0	4,861.2	10,358.4	9,061.8	1,780.1	87.48
99.6	108.0	4,821.1	10,756.8	9,355.1	1,853.0	86.97
99.6	112.0	4,781.3	11,155.2	9,642.9	1,925.9	86.44
99.5	116.0	4,741.7	11,542.0	9,925.5	1,998.9	85.99
99.5	120.0	4,702.3	11,940.0	10,202.0	2,071.8	85.44

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
99.5	124.0	4,663.0	12,338.0	10,472.7	2,144.7	84.88
99.5	128.0	4,623.6	12,736.0	10,737.7	2,217.7	84.31
99.5	132.0	4,584.1	13,134.0	10,995.9	2,290.6	83.72
99.5	136.0	4,544.5	13,532.0	11,247.9	2,363.5	83.12
99.4	140.0	4,504.6	13,916.0	11,493.0	2,436.4	82.59
99.4	144.0	4,464.4	14,313.6	11,731.7	2,509.4	81.96
99.4	148.0	4,423.7	14,711.2	11,962.5	2,582.3	81.32
99.4	152.0	4,382.5	15,108.8	12,185.6	2,655.2	80.65
99.4	156.0	4,340.7	15,506.4	12,400.8	2,728.1	79.97
99.4	160.0	4,298.3	15,904.0	12,608.2	2,801.1	79.28
99.3	164.0	4,255.1	16,285.2	12,806.3	2,874.0	78.64
99.3	168.0	4,211.1	16,682.4	12,995.4	2,946.9	77.90
99.3	172.0	4,166.2	17,079.6	13,174.9	3,019.8	77.14
99.3	176.0	4,120.3	17,476.8	13,344.7	3,092.8	76.36
99.3	180.0	4,073.3	17,874.0	13,503.5	3,165.7	75.55

nl = rpm with no load

lo = current with no load

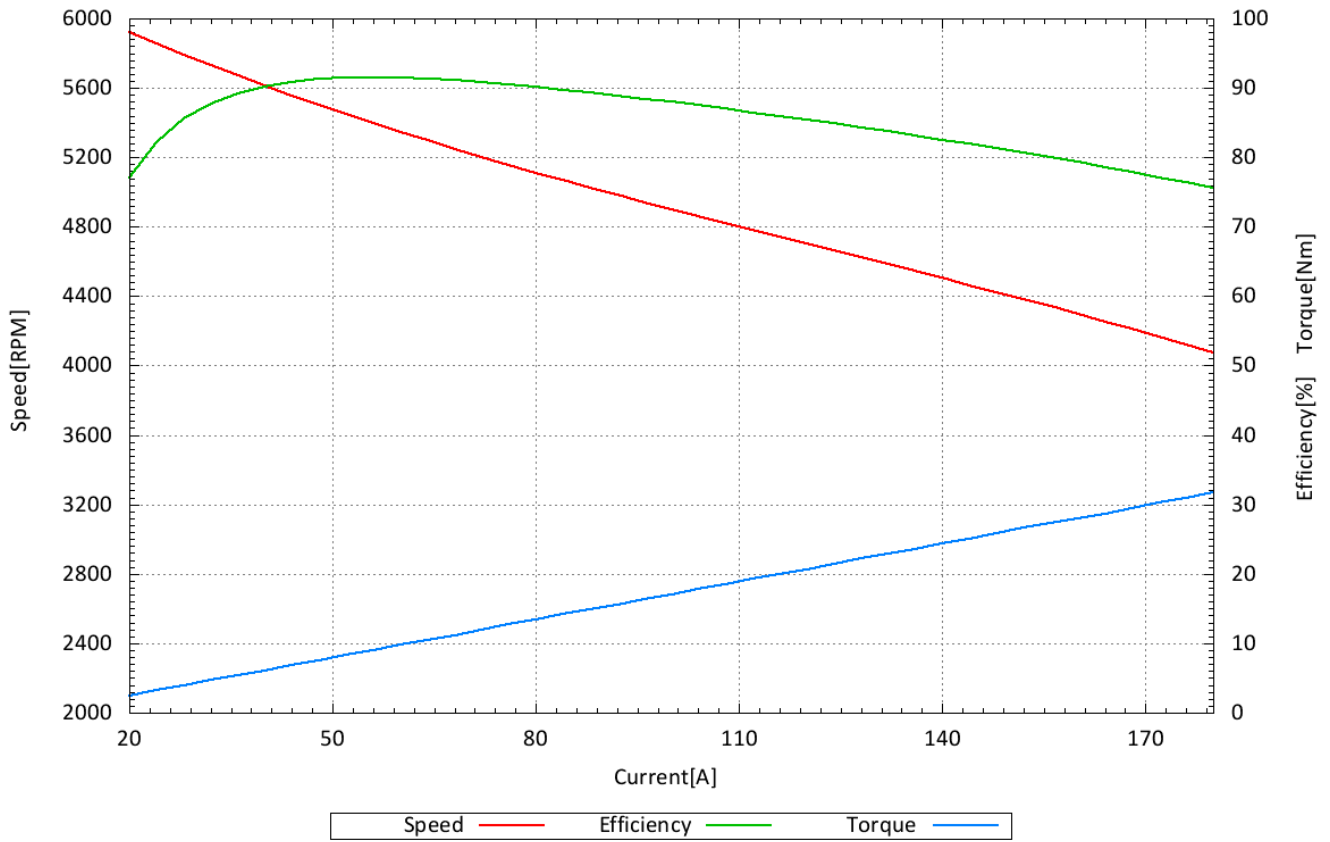
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_100V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **110.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 6,588.9 [RPM] lo: 6.6 [A] kv: 60.6 [RPM/V] kn: -12.54 [RPM/A] kT: 18.23 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
109.9	20.0	6,515.1	2,198.0	1,669.5	244.7	75.95
109.9	24.0	6,443.6	2,637.6	2,143.1	317.6	81.25
109.9	28.0	6,374.4	3,077.2	2,606.7	390.5	84.71
109.9	32.0	6,307.3	3,516.8	3,061.4	463.5	87.05
109.9	36.0	6,242.2	3,956.4	3,506.3	536.4	88.62
109.8	40.0	6,179.0	4,392.0	3,942.6	609.3	89.77
109.8	44.0	6,117.7	4,831.2	4,370.5	682.2	90.46
109.8	48.0	6,058.2	5,270.4	4,791.1	755.2	90.91
109.8	52.0	6,000.3	5,709.6	5,203.4	828.1	91.13
109.8	56.0	5,944.1	6,148.8	5,608.4	901.0	91.21
109.8	60.0	5,889.3	6,588.0	6,006.3	973.9	91.17
109.7	64.0	5,836.0	7,020.8	6,398.1	1,046.9	91.13
109.7	68.0	5,783.9	7,459.6	6,782.5	1,119.8	90.92
109.7	72.0	5,733.1	7,898.4	7,160.6	1,192.7	90.66
109.7	76.0	5,683.4	8,337.2	7,532.4	1,265.6	90.35
109.7	80.0	5,634.8	8,776.0	7,898.7	1,338.6	90.00
109.7	84.0	5,587.2	9,214.8	8,258.5	1,411.5	89.62
109.6	88.0	5,540.4	9,644.8	8,612.3	1,484.4	89.30
109.6	92.0	5,494.4	10,083.2	8,960.3	1,557.3	88.86
109.6	96.0	5,449.1	10,521.6	9,303.0	1,630.3	88.42
109.6	100.0	5,404.4	10,960.0	9,639.2	1,703.2	87.95
109.6	104.0	5,360.2	11,398.4	9,969.6	1,776.1	87.46
109.6	108.0	5,316.5	11,836.8	10,294.2	1,849.0	86.97
109.6	112.0	5,273.1	12,275.2	10,613.2	1,922.0	86.46
109.5	116.0	5,229.9	12,702.0	10,925.5	1,994.9	86.01
109.5	120.0	5,186.9	13,140.0	11,231.7	2,067.8	85.48

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
109.5	124.0	5,144.0	13,578.0	11,532.0	2,140.8	84.93
109.5	128.0	5,101.0	14,016.0	11,825.0	2,213.7	84.37
109.5	132.0	5,058.0	14,454.0	12,111.5	2,286.6	83.79
109.5	136.0	5,014.7	14,892.0	12,390.6	2,359.5	83.20
109.4	140.0	4,971.2	15,316.0	12,663.2	2,432.5	82.68
109.4	144.0	4,927.3	15,753.6	12,927.5	2,505.4	82.06
109.4	148.0	4,882.9	16,191.2	13,183.8	2,578.3	81.43
109.4	152.0	4,838.0	16,628.8	13,431.9	2,651.2	80.77
109.4	156.0	4,792.5	17,066.4	13,671.9	2,724.2	80.11
109.4	160.0	4,746.2	17,504.0	13,902.2	2,797.1	79.42
109.3	164.0	4,699.1	17,925.2	14,122.9	2,870.0	78.79
109.3	168.0	4,651.0	18,362.4	14,333.4	2,942.9	78.06
109.3	172.0	4,602.0	18,799.6	14,534.2	3,015.9	77.31
109.3	176.0	4,551.9	19,236.8	14,723.5	3,088.8	76.54
109.3	180.0	4,500.6	19,674.0	14,901.1	3,161.7	75.74

nl = rpm with no load

lo = current with no load

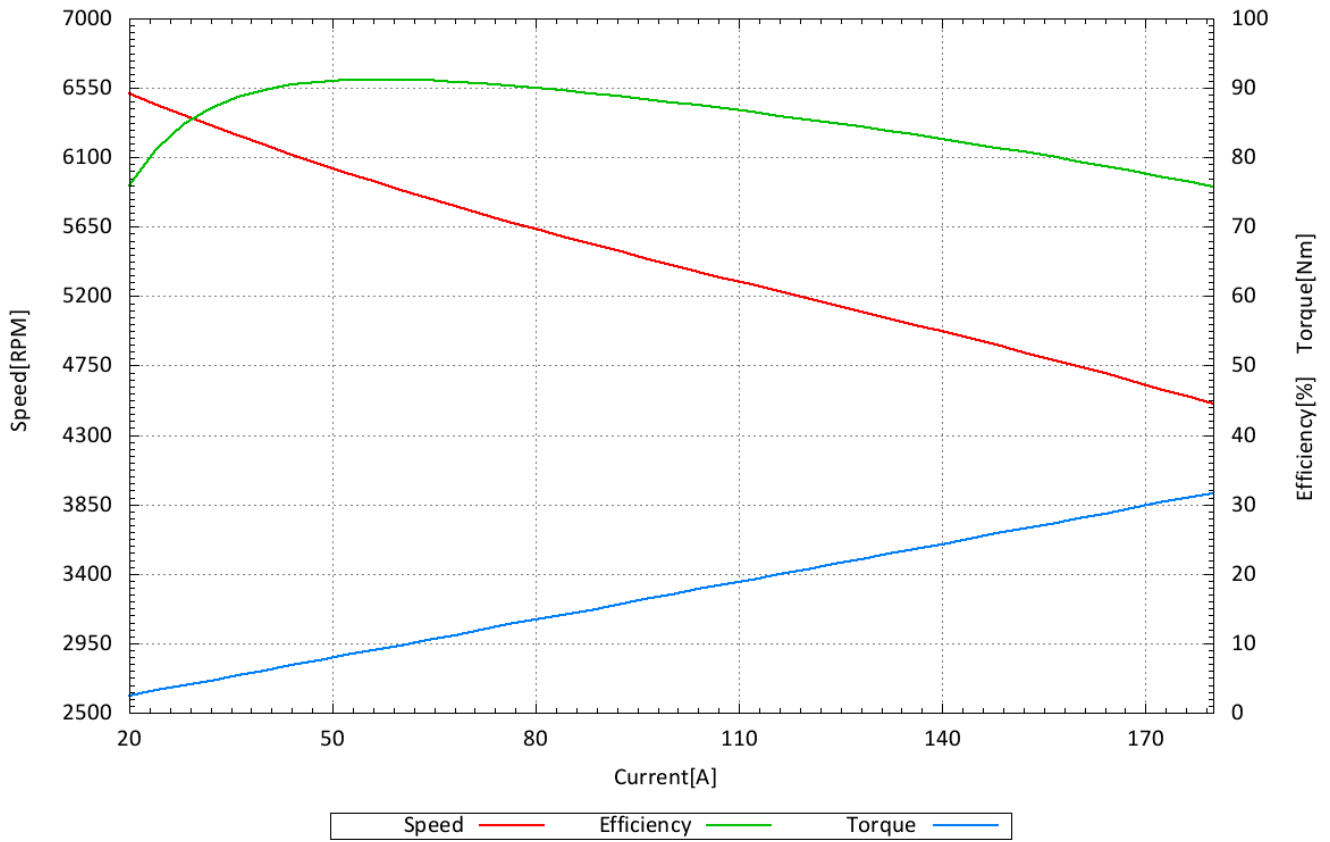
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_110V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-40-B8 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **120.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 7,184.9 [RPM] lo: 6.8 [A] kv: 60.6 [RPM/V] kn: -13.68 [RPM/A] kT: 18.23 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
119.9	20.0	7,110.4	2,398.0	1,792.3	240.7	74.74
119.9	24.0	7,032.9	2,877.6	2,309.6	313.6	80.26
119.9	28.0	6,957.9	3,357.2	2,816.9	386.6	83.91
119.9	32.0	6,885.2	3,836.8	3,313.1	459.5	86.35
119.9	36.0	6,814.7	4,316.4	3,799.4	532.4	88.02
119.8	40.0	6,746.3	4,792.0	4,276.3	605.3	89.24
119.8	44.0	6,679.9	5,271.2	4,744.8	678.3	90.01
119.8	48.0	6,615.4	5,750.4	5,204.0	751.2	90.50
119.8	52.0	6,552.7	6,229.6	5,655.0	824.1	90.78
119.8	56.0	6,491.8	6,708.8	6,098.0	897.0	90.90
119.8	60.0	6,432.4	7,188.0	6,533.9	970.0	90.90
119.7	64.0	6,374.6	7,660.8	6,961.8	1,042.9	90.88
119.7	68.0	6,318.2	8,139.6	7,382.6	1,115.8	90.70
119.7	72.0	6,263.2	8,618.4	7,796.5	1,188.7	90.46
119.7	76.0	6,209.4	9,097.2	8,204.2	1,261.7	90.18
119.7	80.0	6,156.7	9,576.0	8,604.5	1,334.6	89.86
119.7	84.0	6,105.1	10,054.8	8,998.5	1,407.5	89.49
119.6	88.0	6,054.4	10,524.8	9,386.0	1,480.4	89.18
119.6	92.0	6,004.6	11,003.2	9,767.8	1,553.4	88.77
119.6	96.0	5,955.5	11,481.6	10,142.6	1,626.3	88.34
119.6	100.0	5,907.1	11,960.0	10,511.1	1,699.2	87.89
119.6	104.0	5,859.2	12,438.4	10,873.8	1,772.2	87.42
119.6	108.0	5,811.8	12,916.8	11,229.5	1,845.1	86.94
119.6	112.0	5,764.8	13,395.2	11,578.7	1,918.0	86.44
119.5	116.0	5,718.1	13,862.0	11,921.5	1,990.9	86.00
119.5	120.0	5,671.5	14,340.0	12,257.9	2,063.9	85.48

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
119.5	124.0	5,625.0	14,818.0	12,586.8	2,136.8	84.94
119.5	128.0	5,578.4	15,296.0	12,908.4	2,209.7	84.39
119.5	132.0	5,531.8	15,774.0	13,222.8	2,282.6	83.83
119.5	136.0	5,485.0	16,252.0	13,530.3	2,355.6	83.25
119.4	140.0	5,437.8	16,716.0	13,829.0	2,428.5	82.73
119.4	144.0	5,390.2	17,193.6	14,119.4	2,501.4	82.12
119.4	148.0	5,342.2	17,671.2	14,401.5	2,574.3	81.50
119.4	152.0	5,293.5	18,148.8	14,674.9	2,647.3	80.86
119.4	156.0	5,244.2	18,626.4	14,938.6	2,720.2	80.20
119.4	160.0	5,194.0	19,104.0	15,192.1	2,793.1	79.52
119.3	164.0	5,143.0	19,565.2	15,435.5	2,866.0	78.89
119.3	168.0	5,091.0	20,042.4	15,668.6	2,939.0	78.18
119.3	172.0	5,037.9	20,519.6	15,889.8	3,011.9	77.44
119.3	176.0	4,983.6	20,996.8	16,099.0	3,084.8	76.67
119.3	180.0	4,928.0	21,474.0	16,295.6	3,157.7	75.89

nl = rpm with no load

lo = current with no load

kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_40_B8_P30_120V_25032024

