

Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **40.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 2,514.3 [RPM] lo: 2.1 [A] kv: 63.4 [RPM/V] kn: -10.35 [RPM/A] kT: 16.94 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
39.9	20.0	2,340.6	798.0	743.7	303.4	93.19
39.9	22.0	2,313.2	877.8	817.1	337.3	93.08
39.9	24.0	2,286.4	957.6	888.8	371.2	92.81
39.9	26.0	2,260.3	1,037.4	958.9	405.1	92.43
39.9	28.0	2,234.7	1,117.2	1,027.1	438.9	91.94
39.9	30.0	2,209.7	1,197.0	1,094.1	472.8	91.40
39.9	32.0	2,185.3	1,276.8	1,159.6	506.7	90.82
39.9	34.0	2,161.3	1,356.6	1,223.5	540.6	90.19
39.9	36.0	2,137.9	1,436.4	1,286.2	574.5	89.54
39.9	38.0	2,115.0	1,516.2	1,347.5	608.4	88.87
39.9	40.0	2,092.5	1,596.0	1,407.2	642.2	88.17
39.9	42.0	2,070.5	1,675.8	1,465.9	676.1	87.48
39.9	44.0	2,048.9	1,755.6	1,523.4	710.0	86.77
39.9	46.0	2,027.6	1,835.4	1,579.5	743.9	86.06
39.9	48.0	2,006.7	1,915.2	1,634.5	777.8	85.34
39.9	50.0	1,986.2	1,995.0	1,688.3	811.7	84.63
39.8	52.0	1,966.0	2,069.6	1,740.7	845.5	84.11
39.8	54.0	1,946.0	2,149.2	1,792.1	879.4	83.38
39.8	56.0	1,926.4	2,228.8	1,842.4	913.3	82.66
39.8	58.0	1,907.0	2,308.4	1,891.6	947.2	81.94
39.8	60.0	1,887.8	2,388.0	1,939.5	981.1	81.22
39.8	62.0	1,868.8	2,467.6	1,986.4	1,015.0	80.50
39.8	64.0	1,849.9	2,547.2	2,031.7	1,048.8	79.76
39.8	66.0	1,831.3	2,626.8	2,076.3	1,082.7	79.04
39.8	68.0	1,812.7	2,706.4	2,119.6	1,116.6	78.32
39.8	70.0	1,794.3	2,786.0	2,161.8	1,150.5	77.59

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
39.8	72.0	1,775.9	2,865.6	2,202.7	1,184.4	76.87
39.8	74.0	1,757.6	2,945.2	2,242.3	1,218.3	76.14
39.8	76.0	1,739.3	3,024.8	2,280.6	1,252.1	75.40
39.8	78.0	1,721.1	3,104.4	2,317.8	1,286.0	74.66
39.8	80.0	1,702.8	3,184.0	2,353.6	1,319.9	73.92
39.8	82.0	1,684.5	3,263.6	2,388.1	1,353.8	73.17
39.8	84.0	1,666.1	3,343.2	2,421.2	1,387.7	72.42
39.7	86.0	1,647.7	3,414.2	2,452.9	1,421.6	71.84
39.7	88.0	1,629.1	3,493.6	2,482.9	1,455.4	71.07
39.7	90.0	1,610.4	3,573.0	2,511.6	1,489.3	70.29
39.7	92.0	1,591.6	3,652.4	2,538.7	1,523.2	69.51
39.7	94.0	1,572.5	3,731.8	2,564.1	1,557.1	68.71
39.7	96.0	1,553.3	3,811.2	2,587.9	1,591.0	67.90
39.7	98.0	1,533.9	3,890.6	2,610.1	1,624.9	67.09
39.7	100.0	1,514.2	3,970.0	2,630.1	1,658.7	66.25
39.7	102.0	1,494.2	4,049.4	2,648.4	1,692.6	65.40
39.7	104.0	1,473.9	4,128.8	2,664.8	1,726.5	64.54
39.7	106.0	1,453.3	4,208.2	2,679.1	1,760.4	63.66
39.7	108.0	1,432.4	4,287.6	2,691.5	1,794.3	62.77
39.7	110.0	1,411.1	4,367.0	2,701.5	1,828.2	61.86
39.7	112.0	1,389.4	4,446.4	2,709.2	1,862.0	60.93
39.7	114.0	1,367.3	4,525.8	2,714.6	1,895.9	59.98
39.7	116.0	1,344.8	4,605.2	2,717.7	1,929.8	59.01
39.7	118.0	1,321.8	4,684.6	2,718.1	1,963.7	58.02

nl = rpm with no load

lo = current with no load

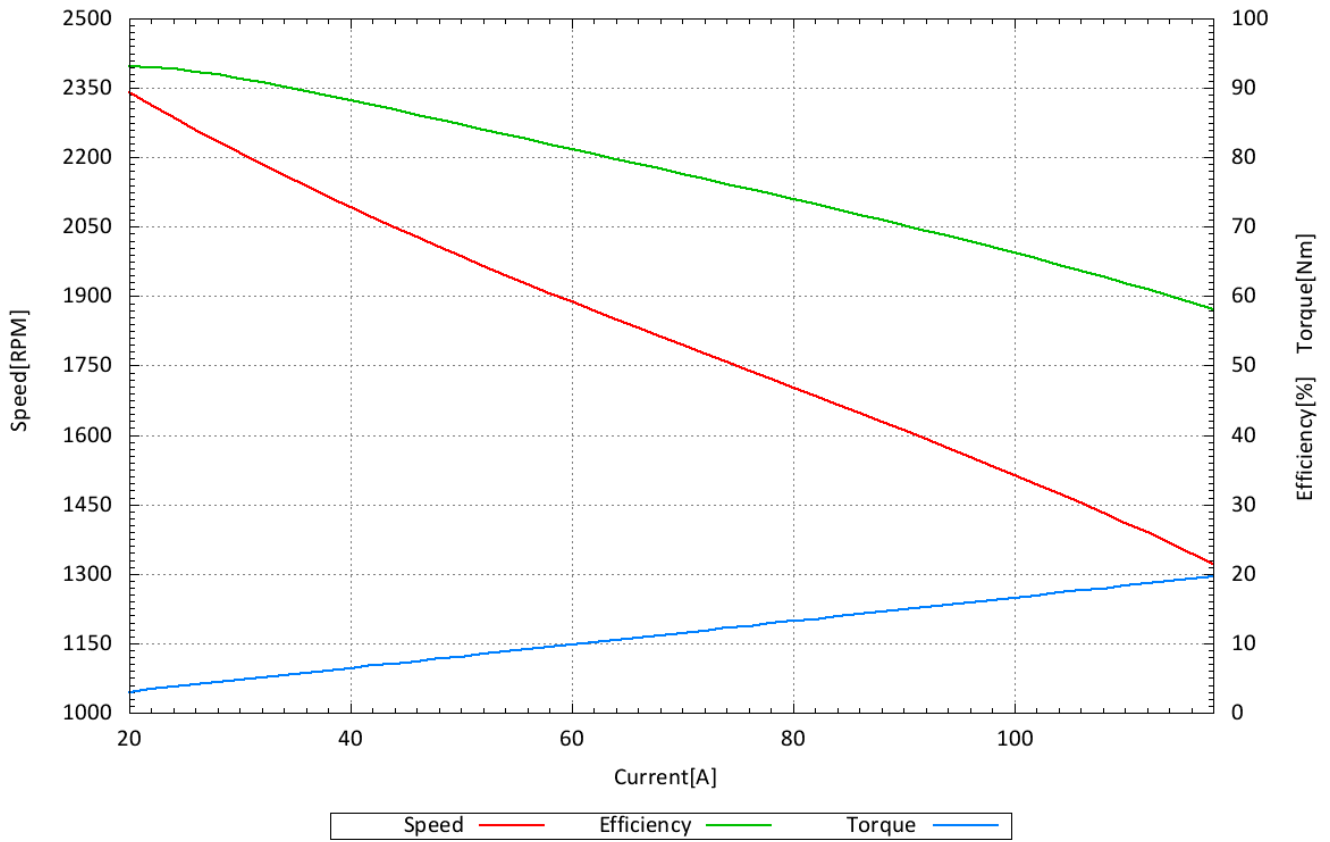
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_25_B12_P30_40V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **50.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 3,098.7 [RPM] lo: 2.4 [A] kv: 62.5 [RPM/V] kn: -11.81 [RPM/A] kT: 17.03 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
49.9	20.0	2,937.8	998.0	923.6	300.2	92.54
49.9	22.0	2,905.5	1,097.8	1,016.8	334.2	92.63
49.9	24.0	2,873.8	1,197.6	1,108.4	368.3	92.55
49.9	26.0	2,842.9	1,297.4	1,197.7	402.3	92.31
49.9	28.0	2,812.6	1,397.2	1,285.3	436.4	91.99
49.9	30.0	2,782.9	1,497.0	1,370.9	470.4	91.57
49.9	32.0	2,753.8	1,596.8	1,454.9	504.5	91.11
49.9	34.0	2,725.3	1,696.6	1,536.8	538.5	90.58
49.9	36.0	2,697.4	1,796.4	1,617.4	572.6	90.04
49.9	38.0	2,670.0	1,896.2	1,696.1	606.6	89.45
49.8	40.0	2,643.1	1,992.0	1,773.4	640.7	89.02
49.8	42.0	2,616.8	2,091.6	1,848.9	674.7	88.40
49.8	44.0	2,590.9	2,191.2	1,923.1	708.8	87.76
49.8	46.0	2,565.4	2,290.8	1,995.8	742.9	87.12
49.8	48.0	2,540.4	2,390.4	2,066.8	776.9	86.46
49.8	50.0	2,515.8	2,490.0	2,136.6	811.0	85.81
49.8	52.0	2,491.6	2,589.6	2,204.8	845.0	85.14
49.8	54.0	2,467.8	2,689.2	2,271.8	879.1	84.48
49.8	56.0	2,444.3	2,788.8	2,337.2	913.1	83.81
49.8	58.0	2,421.1	2,888.4	2,401.5	947.2	83.14
49.8	60.0	2,398.3	2,988.0	2,464.3	981.2	82.47
49.8	62.0	2,375.7	3,087.6	2,525.9	1,015.3	81.81
49.8	64.0	2,353.4	3,187.2	2,586.0	1,049.3	81.14
49.8	66.0	2,331.3	3,286.8	2,644.9	1,083.4	80.47
49.7	68.0	2,309.4	3,379.6	2,702.3	1,117.4	79.96
49.7	70.0	2,287.7	3,479.0	2,758.6	1,151.5	79.29

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
49.7	72.0	2,266.2	3,578.4	2,813.6	1,185.6	78.63
49.7	74.0	2,244.8	3,677.8	2,867.0	1,219.6	77.95
49.7	76.0	2,223.6	3,777.2	2,919.3	1,253.7	77.29
49.7	78.0	2,202.5	3,876.6	2,970.0	1,287.7	76.61
49.7	80.0	2,181.4	3,976.0	3,019.5	1,321.8	75.94
49.7	82.0	2,160.5	4,075.4	3,067.5	1,355.8	75.27
49.7	84.0	2,139.5	4,174.8	3,114.0	1,389.9	74.59
49.7	86.0	2,118.6	4,274.2	3,159.1	1,423.9	73.91
49.7	88.0	2,097.7	4,373.6	3,202.8	1,458.0	73.23
49.7	90.0	2,076.7	4,473.0	3,244.7	1,492.0	72.54
49.7	92.0	2,055.7	4,572.4	3,285.3	1,526.1	71.85
49.6	94.0	2,034.7	4,662.4	3,324.2	1,560.1	71.30
49.6	96.0	2,013.5	4,761.6	3,361.4	1,594.2	70.59
49.6	98.0	1,992.3	4,860.8	3,397.0	1,628.2	69.88
49.6	100.0	1,970.9	4,960.0	3,430.9	1,662.3	69.17
49.6	102.0	1,949.3	5,059.2	3,462.9	1,696.4	68.45
49.6	104.0	1,927.6	5,158.4	3,492.9	1,730.4	67.71
49.6	106.0	1,905.6	5,257.6	3,521.1	1,764.5	66.97
49.6	108.0	1,883.5	5,356.8	3,547.4	1,798.5	66.22
49.6	110.0	1,861.1	5,456.0	3,571.6	1,832.6	65.46
49.6	112.0	1,838.5	5,555.2	3,593.7	1,866.6	64.69
49.6	114.0	1,815.5	5,654.4	3,613.6	1,900.7	63.91
49.6	116.0	1,792.3	5,753.6	3,631.2	1,934.7	63.11
49.6	118.0	1,768.7	5,852.8	3,646.6	1,968.8	62.30

nl = rpm with no load

lo = current with no load

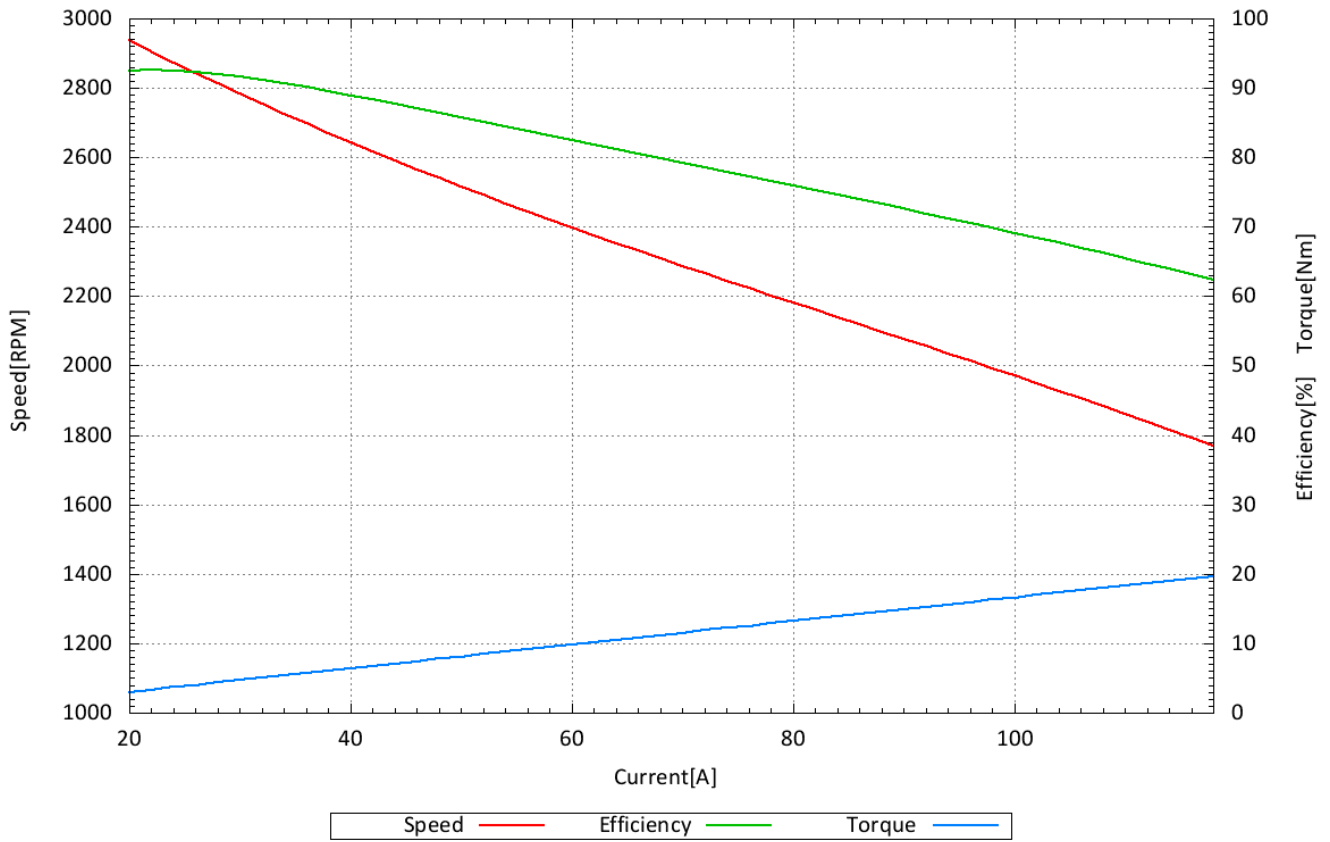
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_25_B12_P30_50V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **60.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 3,718.9 [RPM] lo: 3.4 [A] kv: 62.7 [RPM/V] kn: -13.47 [RPM/A] kT: 17.27 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
60.0	20.0	3,575.9	1,200.0	1,074.3	286.9	89.53
60.0	22.0	3,537.2	1,320.0	1,190.5	321.4	90.19
60.0	24.0	3,499.5	1,440.0	1,304.3	355.9	90.57
59.9	26.0	3,462.6	1,557.4	1,416.0	390.5	90.92
59.9	28.0	3,426.6	1,677.2	1,525.0	425.0	90.93
59.9	30.0	3,391.4	1,797.0	1,632.3	459.6	90.83
59.9	32.0	3,357.1	1,916.8	1,737.0	494.1	90.62
59.9	34.0	3,323.5	2,036.6	1,840.1	528.7	90.35
59.9	36.0	3,290.6	2,156.4	1,940.7	563.2	90.00
59.9	38.0	3,258.5	2,276.2	2,039.5	597.7	89.60
59.9	40.0	3,227.1	2,396.0	2,136.8	632.3	89.18
59.9	42.0	3,196.3	2,515.8	2,231.9	666.8	88.71
59.9	44.0	3,166.1	2,635.6	2,325.5	701.4	88.23
59.9	46.0	3,136.5	2,755.4	2,417.1	735.9	87.72
59.9	48.0	3,107.6	2,875.2	2,507.4	770.5	87.21
59.9	50.0	3,079.1	2,995.0	2,595.7	805.0	86.67
59.9	52.0	3,051.2	3,114.8	2,682.4	839.5	86.12
59.9	54.0	3,023.7	3,234.6	2,767.8	874.1	85.57
59.9	56.0	2,996.7	3,354.4	2,851.3	908.6	85.00
59.9	58.0	2,970.1	3,474.2	2,933.6	943.2	84.44
59.9	60.0	2,943.9	3,594.0	3,014.1	977.7	83.86
59.9	62.0	2,918.1	3,713.8	3,093.4	1,012.3	83.30
59.9	64.0	2,892.6	3,833.6	3,170.9	1,046.8	82.71
59.9	66.0	2,867.4	3,953.4	3,246.9	1,081.3	82.13
59.9	68.0	2,842.5	4,073.2	3,321.7	1,115.9	81.55
59.9	70.0	2,817.8	4,193.0	3,394.6	1,150.4	80.96

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
59.9	72.0	2,793.3	4,312.8	3,466.3	1,185.0	80.37
59.8	74.0	2,769.1	4,425.2	3,536.3	1,219.5	79.91
59.8	76.0	2,744.9	4,544.8	3,604.9	1,254.1	79.32
59.8	78.0	2,720.9	4,664.4	3,671.6	1,288.6	78.72
59.8	80.0	2,697.1	4,784.0	3,737.0	1,323.1	78.11
59.8	82.0	2,673.2	4,903.6	3,800.7	1,357.7	77.51
59.8	84.0	2,649.5	5,023.2	3,862.7	1,392.2	76.90
59.8	86.0	2,625.7	5,142.8	3,923.2	1,426.8	76.28
59.8	88.0	2,601.9	5,262.4	3,981.6	1,461.3	75.66
59.8	90.0	2,578.1	5,382.0	4,038.6	1,495.9	75.04
59.8	92.0	2,554.1	5,501.6	4,093.3	1,530.4	74.40
59.8	94.0	2,530.1	5,621.2	4,146.2	1,564.9	73.76
59.8	96.0	2,506.0	5,740.8	4,197.5	1,599.5	73.12
59.8	98.0	2,481.6	5,860.4	4,246.3	1,634.0	72.46
59.8	100.0	2,457.1	5,980.0	4,293.4	1,668.6	71.80
59.8	102.0	2,432.4	6,099.6	4,338.1	1,703.1	71.12
59.8	104.0	2,407.4	6,219.2	4,380.8	1,737.7	70.44
59.8	106.0	2,382.1	6,338.8	4,420.8	1,772.2	69.74
59.8	108.0	2,356.5	6,458.4	4,458.4	1,806.7	69.03
59.8	110.0	2,330.6	6,578.0	4,493.9	1,841.3	68.32
59.8	112.0	2,304.2	6,697.6	4,526.2	1,875.8	67.58
59.8	114.0	2,277.5	6,817.2	4,556.3	1,910.4	66.84
59.8	116.0	2,250.4	6,936.8	4,583.4	1,944.9	66.07
59.8	118.0	2,222.8	7,056.4	4,607.7	1,979.5	65.30

nl = rpm with no load

lo = current with no load

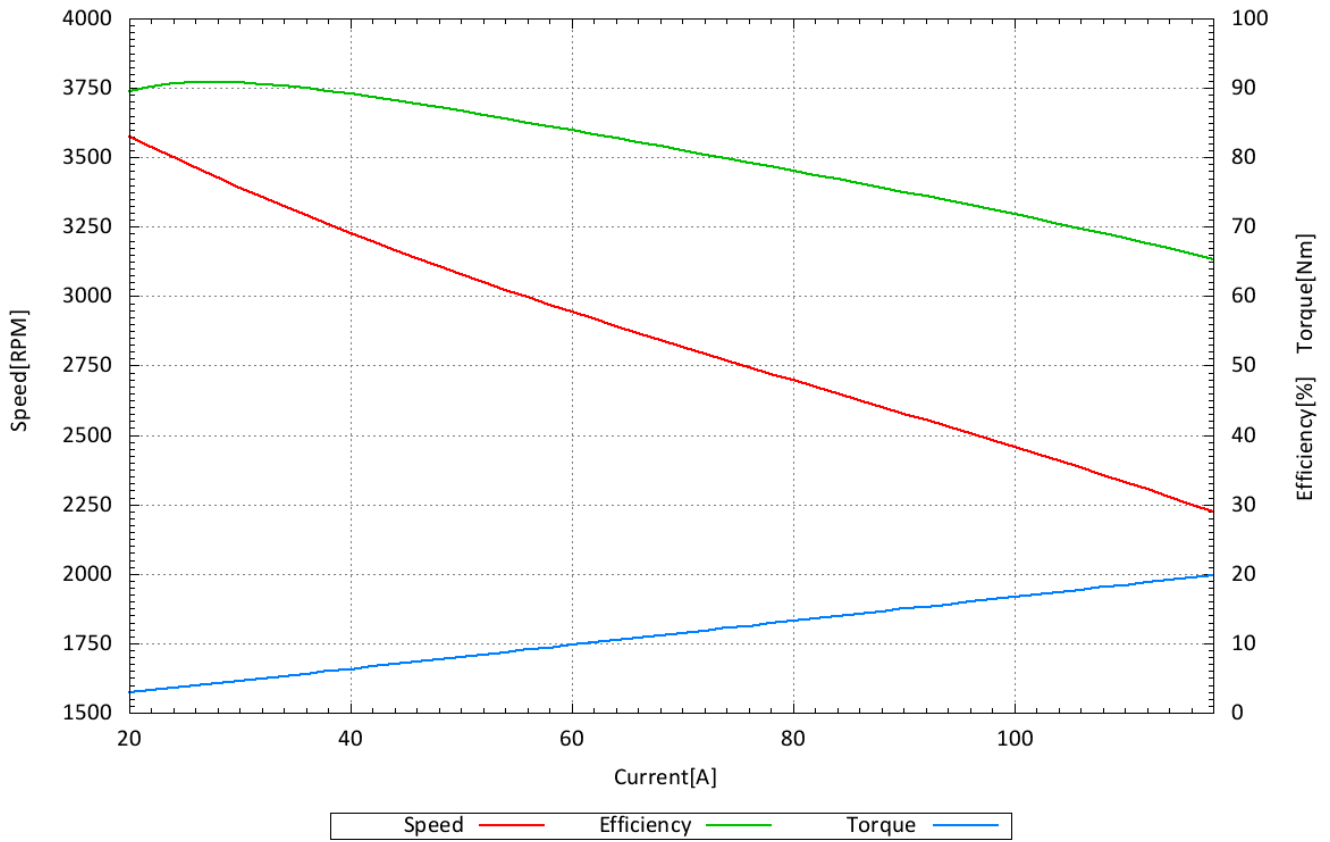
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_25_B12_P30_60V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **70.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 4,357.8 [RPM] lo: 2.8 [A] kv: 62.8 [RPM/V] kn: -14.84 [RPM/A] kT: 17.17 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
69.9	20.0	4,188.9	1,398.0	1,294.9	295.2	92.63
69.9	22.0	4,145.1	1,537.8	1,430.7	329.6	93.04
69.9	24.0	4,102.5	1,677.6	1,563.4	363.9	93.19
69.9	26.0	4,060.9	1,817.4	1,693.8	398.3	93.20
69.9	28.0	4,020.4	1,957.2	1,821.3	432.6	93.06
69.9	30.0	3,980.9	2,097.0	1,946.8	467.0	92.84
69.9	32.0	3,942.4	2,236.8	2,069.6	501.3	92.53
69.9	34.0	3,904.8	2,376.6	2,190.5	535.7	92.17
69.9	36.0	3,868.1	2,516.4	2,308.9	570.0	91.75
69.9	38.0	3,832.2	2,656.2	2,425.5	604.4	91.31
69.8	40.0	3,797.2	2,792.0	2,539.7	638.7	90.96
69.8	42.0	3,763.0	2,931.6	2,652.4	673.1	90.48
69.8	44.0	3,729.6	3,071.2	2,762.8	707.4	89.96
69.8	46.0	3,696.8	3,210.8	2,871.3	741.7	89.43
69.8	48.0	3,664.8	3,350.4	2,978.5	776.1	88.90
69.8	50.0	3,633.4	3,490.0	3,083.5	810.4	88.35
69.8	52.0	3,602.6	3,629.6	3,187.1	844.8	87.81
69.8	54.0	3,572.4	3,769.2	3,288.7	879.1	87.25
69.8	56.0	3,542.8	3,908.8	3,389.1	913.5	86.70
69.8	58.0	3,513.6	4,048.4	3,487.4	947.8	86.14
69.8	60.0	3,484.9	4,188.0	3,584.4	982.2	85.59
69.8	62.0	3,456.7	4,327.6	3,679.6	1,016.5	85.03
69.8	64.0	3,428.9	4,467.2	3,773.5	1,050.9	84.47
69.7	66.0	3,401.4	4,600.2	3,865.4	1,085.2	84.03
69.7	68.0	3,374.3	4,739.6	3,956.2	1,119.6	83.47
69.7	70.0	3,347.4	4,879.0	4,044.9	1,153.9	82.90

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
69.7	72.0	3,320.9	5,018.4	4,132.5	1,188.3	82.35
69.7	74.0	3,294.5	5,157.8	4,218.0	1,222.6	81.78
69.7	76.0	3,268.4	5,297.2	4,302.3	1,257.0	81.22
69.7	78.0	3,242.4	5,436.6	4,384.5	1,291.3	80.65
69.7	80.0	3,216.5	5,576.0	4,465.4	1,325.7	80.08
69.7	82.0	3,190.7	5,715.4	4,544.2	1,360.0	79.51
69.7	84.0	3,164.9	5,854.8	4,621.4	1,394.4	78.93
69.7	86.0	3,139.2	5,994.2	4,696.7	1,428.7	78.35
69.7	88.0	3,113.4	6,133.6	4,769.9	1,463.0	77.77
69.7	90.0	3,087.6	6,273.0	4,841.6	1,497.4	77.18
69.7	92.0	3,061.7	6,412.4	4,910.9	1,531.7	76.59
69.6	94.0	3,035.6	6,542.4	4,978.4	1,566.1	76.09
69.6	96.0	3,009.4	6,681.6	5,043.6	1,600.4	75.48
69.6	98.0	2,983.0	6,820.8	5,106.8	1,634.8	74.87
69.6	100.0	2,956.3	6,960.0	5,167.3	1,669.1	74.24
69.6	102.0	2,929.4	7,099.2	5,225.8	1,703.5	73.61
69.6	104.0	2,902.2	7,238.4	5,281.5	1,737.8	72.96
69.6	106.0	2,874.6	7,377.6	5,334.8	1,772.2	72.31
69.6	108.0	2,846.7	7,516.8	5,385.3	1,806.5	71.64
69.6	110.0	2,818.3	7,656.0	5,433.1	1,840.9	70.96
69.6	112.0	2,789.5	7,795.2	5,477.8	1,875.2	70.27
69.6	114.0	2,760.2	7,934.4	5,519.7	1,909.6	69.57
69.6	116.0	2,730.4	8,073.6	5,558.1	1,943.9	68.84
69.6	118.0	2,700.0	8,212.8	5,593.5	1,978.3	68.11

nl = rpm with no load

lo = current with no load

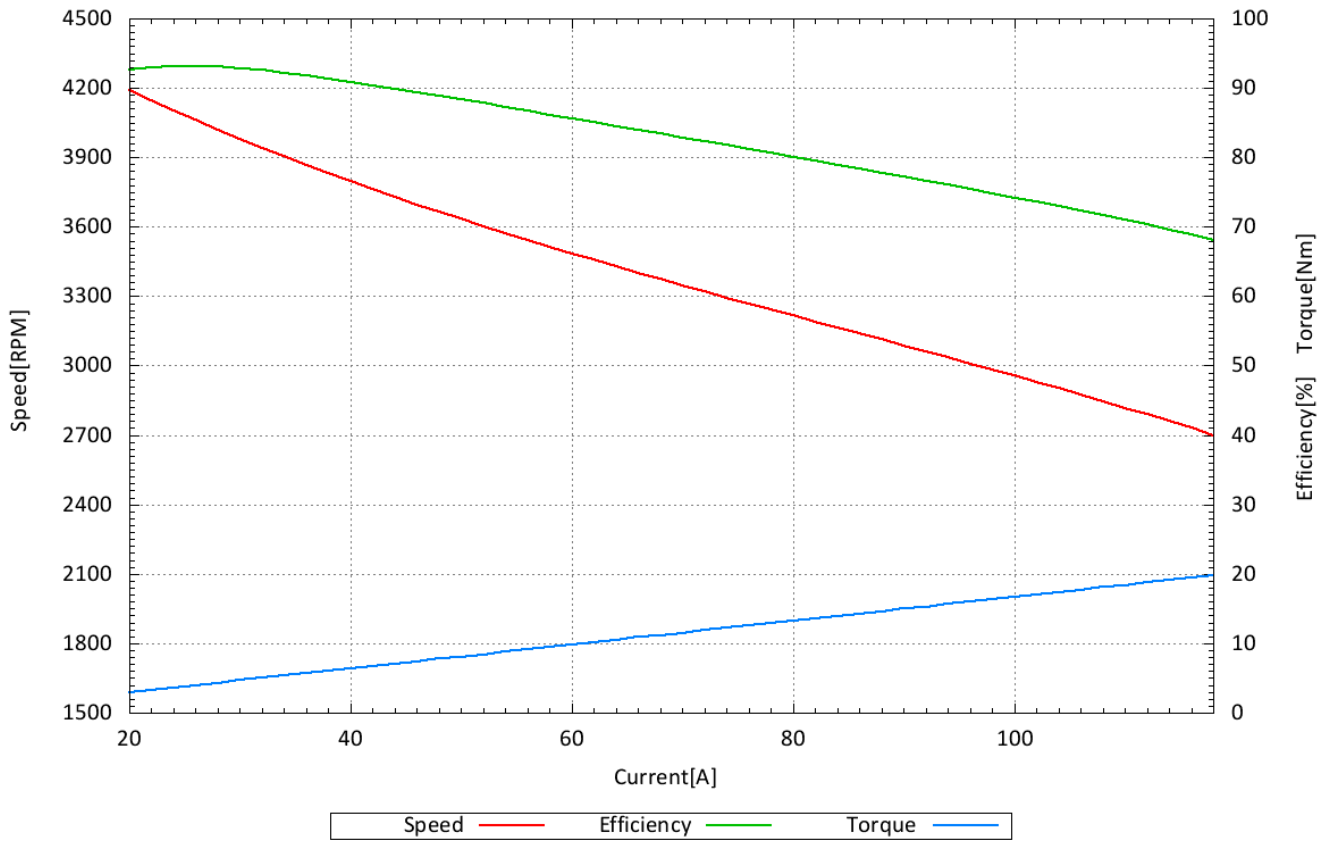
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_25_B12_P30_70V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **80.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 5,033.9 [RPM] lo: 2.9 [A] kv: 63.5 [RPM/V] kn: -17.03 [RPM/A] kT: 17.26 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
79.9	20.0	4,805.2	1,598.0	1,482.9	294.7	92.80
79.9	22.0	4,755.9	1,757.8	1,640.0	329.3	93.30
79.9	24.0	4,708.0	1,917.6	1,793.6	363.8	93.53
79.9	26.0	4,661.3	2,077.4	1,944.2	398.3	93.59
79.9	28.0	4,615.9	2,237.2	2,092.1	432.8	93.51
79.9	30.0	4,571.7	2,397.0	2,237.7	467.4	93.35
79.9	32.0	4,528.6	2,556.8	2,380.2	501.9	93.09
79.9	34.0	4,486.6	2,716.6	2,520.2	536.4	92.77
79.9	36.0	4,445.7	2,876.4	2,657.8	570.9	92.40
79.9	38.0	4,405.9	3,036.2	2,793.2	605.4	92.00
79.9	40.0	4,367.0	3,196.0	2,926.8	640.0	91.58
79.8	42.0	4,329.1	3,351.6	3,057.8	674.5	91.23
79.8	44.0	4,292.1	3,511.2	3,186.7	709.0	90.76
79.8	46.0	4,255.9	3,670.8	3,313.6	743.5	90.27
79.8	48.0	4,220.6	3,830.4	3,439.0	778.1	89.78
79.8	50.0	4,186.0	3,990.0	3,562.1	812.6	89.28
79.8	52.0	4,152.2	4,149.6	3,683.3	847.1	88.76
79.8	54.0	4,119.1	4,309.2	3,802.8	881.6	88.25
79.8	56.0	4,086.6	4,468.8	3,920.4	916.1	87.73
79.8	58.0	4,054.7	4,628.4	4,036.7	950.7	87.22
79.8	60.0	4,023.4	4,788.0	4,150.9	985.2	86.69
79.8	62.0	3,992.7	4,947.6	4,263.5	1,019.7	86.17
79.8	64.0	3,962.4	5,107.2	4,374.3	1,054.2	85.65
79.8	66.0	3,932.5	5,266.8	4,483.8	1,088.8	85.13
79.8	68.0	3,903.1	5,426.4	4,591.3	1,123.3	84.61
79.7	70.0	3,874.0	5,579.0	4,697.0	1,157.8	84.19

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
79.7	72.0	3,845.2	5,738.4	4,801.0	1,192.3	83.66
79.7	74.0	3,816.7	5,897.8	4,903.3	1,226.8	83.14
79.7	76.0	3,788.5	6,057.2	5,004.4	1,261.4	82.62
79.7	78.0	3,760.4	6,216.6	5,103.1	1,295.9	82.09
79.7	80.0	3,732.5	6,376.0	5,200.1	1,330.4	81.56
79.7	82.0	3,704.6	6,535.4	5,295.1	1,364.9	81.02
79.7	84.0	3,676.9	6,694.8	5,388.7	1,399.5	80.49
79.7	86.0	3,649.1	6,854.2	5,479.8	1,434.0	79.95
79.7	88.0	3,621.4	7,013.6	5,569.0	1,468.5	79.40
79.7	90.0	3,593.5	7,173.0	5,655.9	1,503.0	78.85
79.7	92.0	3,565.6	7,332.4	5,740.9	1,537.5	78.29
79.7	94.0	3,537.5	7,491.8	5,823.8	1,572.1	77.74
79.7	96.0	3,509.3	7,651.2	5,904.1	1,606.6	77.17
79.6	98.0	3,480.8	7,800.8	5,981.9	1,641.1	76.68
79.6	100.0	3,452.0	7,960.0	6,057.2	1,675.6	76.10
79.6	102.0	3,422.9	8,119.2	6,130.1	1,710.2	75.50
79.6	104.0	3,393.5	8,278.4	6,200.1	1,744.7	74.89
79.6	106.0	3,363.6	8,437.6	6,267.0	1,779.2	74.27
79.6	108.0	3,333.3	8,596.8	6,330.9	1,813.7	73.64
79.6	110.0	3,302.6	8,756.0	6,392.0	1,848.2	73.00
79.6	112.0	3,271.3	8,915.2	6,449.9	1,882.8	72.35
79.6	114.0	3,239.4	9,074.4	6,504.0	1,917.3	71.67
79.6	116.0	3,206.9	9,233.6	6,554.6	1,951.8	70.99
79.6	118.0	3,173.8	9,392.8	6,601.7	1,986.3	70.28

nl = rpm with no load

lo = current with no load

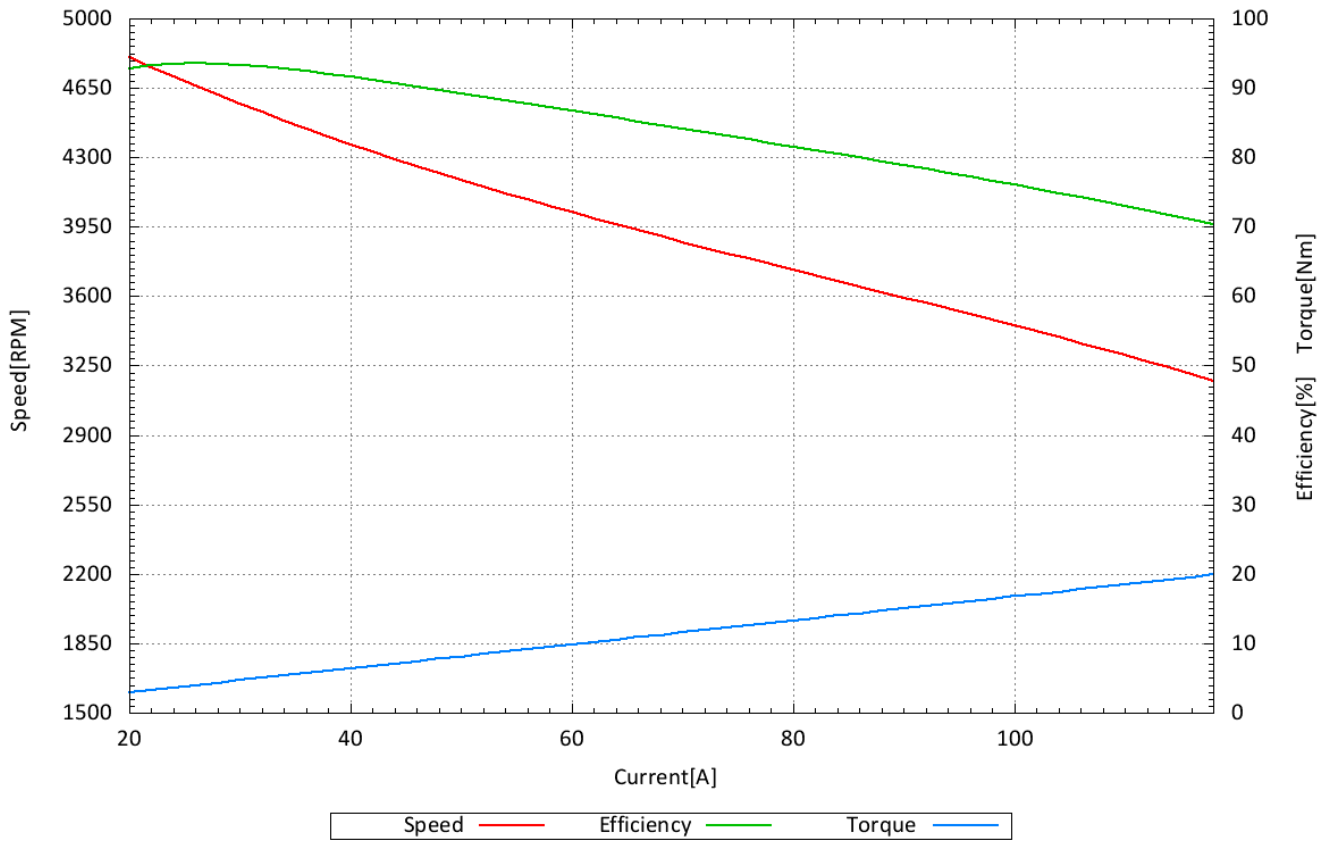
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_25_B12_P30_80V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **90.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 5,674.5 [RPM] lo: 3.0 [A] kv: 63.7 [RPM/V] kn: -18.50 [RPM/A] kT: 17.25 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
89.9	20.0	5,446.6	1,798.0	1,672.9	293.3	93.04
89.9	22.0	5,391.3	1,977.8	1,850.7	327.8	93.57
89.9	24.0	5,337.4	2,157.6	2,025.0	362.3	93.85
89.9	26.0	5,285.1	2,337.4	2,196.1	396.8	93.96
89.9	28.0	5,234.2	2,517.2	2,364.1	431.3	93.92
89.9	30.0	5,184.7	2,697.0	2,529.0	465.8	93.77
89.9	32.0	5,136.6	2,876.8	2,691.1	500.3	93.55
89.9	34.0	5,089.8	3,056.6	2,850.5	534.8	93.26
89.9	36.0	5,044.2	3,236.4	3,007.2	569.3	92.92
89.9	38.0	4,999.8	3,416.2	3,161.4	603.8	92.54
89.9	40.0	4,956.5	3,596.0	3,313.1	638.3	92.13
89.9	42.0	4,914.4	3,775.8	3,462.5	672.8	91.70
89.9	44.0	4,873.3	3,955.6	3,609.6	707.3	91.25
89.9	46.0	4,833.3	4,135.4	3,754.6	741.8	90.79
89.9	48.0	4,794.2	4,315.2	3,897.4	776.3	90.32
89.9	50.0	4,755.9	4,495.0	4,038.1	810.8	89.83
89.8	52.0	4,718.6	4,669.6	4,176.9	845.3	89.45
89.8	54.0	4,682.1	4,849.2	4,313.7	879.8	88.96
89.8	56.0	4,646.3	5,028.8	4,448.6	914.3	88.46
89.8	58.0	4,611.3	5,208.4	4,581.7	948.8	87.97
89.8	60.0	4,576.9	5,388.0	4,712.9	983.3	87.47
89.8	62.0	4,543.1	5,567.6	4,842.2	1,017.8	86.97
89.8	64.0	4,509.9	5,747.2	4,969.8	1,052.3	86.47
89.8	66.0	4,477.3	5,926.8	5,095.6	1,086.8	85.98
89.8	68.0	4,445.1	6,106.4	5,219.5	1,121.3	85.48
89.8	70.0	4,413.3	6,286.0	5,341.6	1,155.8	84.98

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
89.8	72.0	4,381.9	6,465.6	5,461.9	1,190.3	84.48
89.8	74.0	4,350.8	6,645.2	5,580.4	1,224.8	83.98
89.8	76.0	4,320.0	6,824.8	5,696.9	1,259.3	83.47
89.8	78.0	4,289.4	7,004.4	5,811.6	1,293.8	82.97
89.8	80.0	4,259.1	7,184.0	5,924.4	1,328.3	82.47
89.8	82.0	4,228.8	7,363.6	6,035.0	1,362.8	81.96
89.7	84.0	4,198.6	7,534.8	6,143.6	1,397.3	81.54
89.7	86.0	4,168.5	7,714.2	6,250.2	1,431.8	81.02
89.7	88.0	4,138.3	7,893.6	6,354.4	1,466.3	80.50
89.7	90.0	4,108.1	8,073.0	6,456.4	1,500.8	79.98
89.7	92.0	4,077.8	8,252.4	6,556.1	1,535.3	79.45
89.7	94.0	4,047.3	8,431.8	6,653.3	1,569.8	78.91
89.7	96.0	4,016.6	8,611.2	6,748.0	1,604.3	78.36
89.7	98.0	3,985.7	8,790.6	6,840.0	1,638.8	77.81
89.7	100.0	3,954.4	8,970.0	6,929.2	1,673.3	77.25
89.7	102.0	3,922.8	9,149.4	7,015.6	1,707.8	76.68
89.7	104.0	3,890.8	9,328.8	7,098.9	1,742.3	76.10
89.7	106.0	3,858.4	9,508.2	7,179.2	1,776.8	75.51
89.7	108.0	3,825.4	9,687.6	7,256.0	1,811.3	74.90
89.7	110.0	3,791.9	9,867.0	7,329.4	1,845.8	74.28
89.7	112.0	3,757.8	10,046.4	7,399.3	1,880.3	73.65
89.7	114.0	3,723.0	10,225.8	7,465.3	1,914.8	73.00
89.7	116.0	3,687.6	10,405.2	7,527.5	1,949.3	72.34
89.6	118.0	3,651.4	10,572.8	7,585.5	1,983.8	71.75

nl = rpm with no load

lo = current with no load

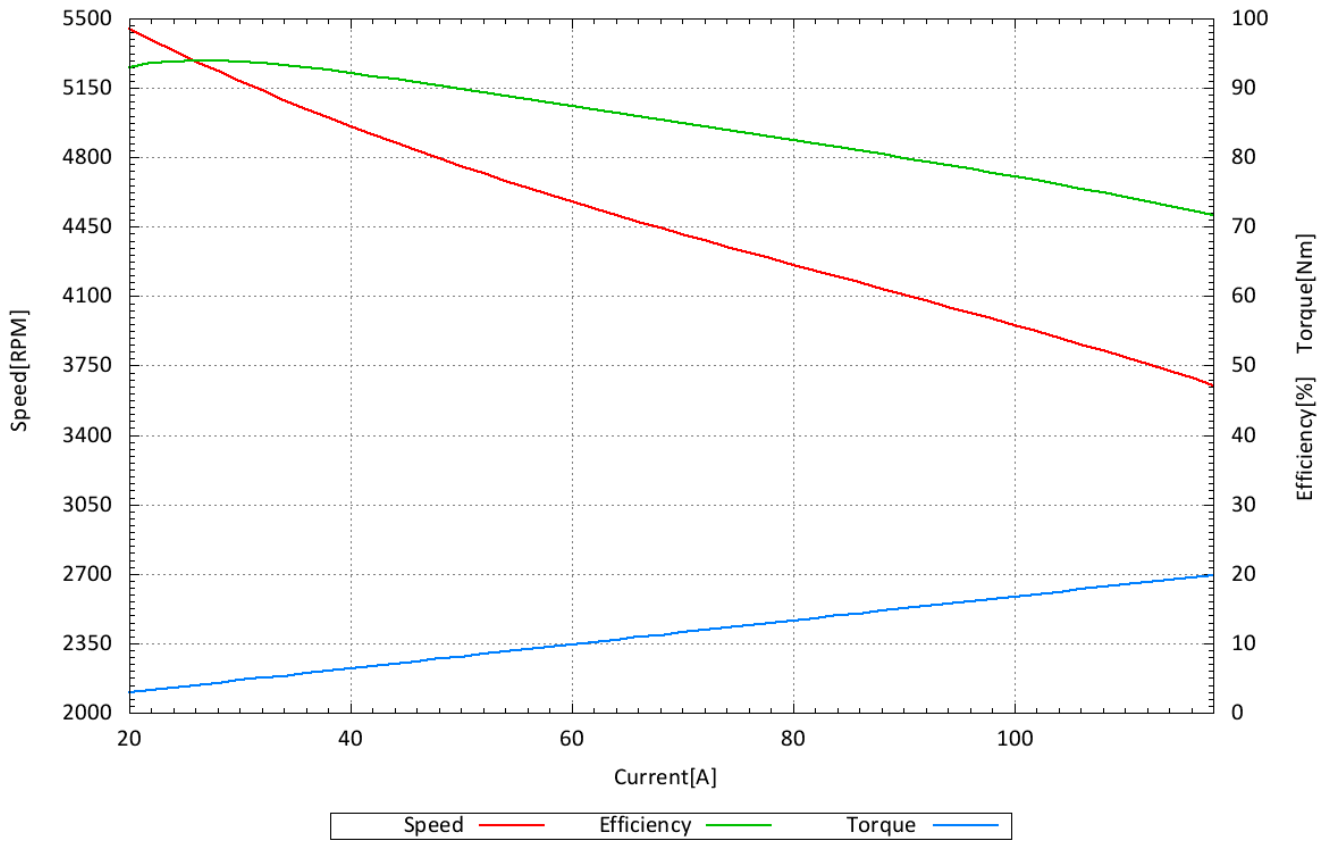
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_25_B12_P30_90V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **100.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 6,302.7 [RPM] lo: 3.1 [A] kv: 63.7 [RPM/V] kn: -20.56 [RPM/A] kT: 17.25 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
99.9	20.0	6,059.0	1,998.0	1,848.9	291.4	92.54
99.9	22.0	5,998.1	2,197.8	2,047.0	325.9	93.14
99.9	24.0	5,938.9	2,397.6	2,241.4	360.4	93.49
99.9	26.0	5,881.4	2,597.4	2,432.2	394.9	93.64
99.9	28.0	5,825.4	2,797.2	2,619.5	429.4	93.65
99.9	30.0	5,770.9	2,997.0	2,803.5	463.9	93.54
99.9	32.0	5,718.0	3,196.8	2,984.4	498.4	93.35
99.9	34.0	5,666.5	3,396.6	3,162.2	532.9	93.10
99.9	36.0	5,616.3	3,596.4	3,337.1	567.4	92.79
99.9	38.0	5,567.5	3,796.2	3,509.2	601.9	92.44
99.9	40.0	5,519.9	3,996.0	3,678.7	636.4	92.06
99.9	42.0	5,473.6	4,195.8	3,845.6	670.9	91.65
99.9	44.0	5,428.4	4,395.6	4,009.9	705.4	91.23
99.9	46.0	5,384.3	4,595.4	4,171.9	739.9	90.78
99.9	48.0	5,341.3	4,795.2	4,331.5	774.4	90.33
99.9	50.0	5,299.3	4,995.0	4,488.9	808.9	89.87
99.8	52.0	5,258.2	5,189.6	4,644.1	843.4	89.49
99.8	54.0	5,218.0	5,389.2	4,797.1	877.9	89.01
99.8	56.0	5,178.7	5,588.8	4,948.1	912.4	88.54
99.8	58.0	5,140.1	5,788.4	5,096.9	946.9	88.05
99.8	60.0	5,102.3	5,988.0	5,243.7	981.4	87.57
99.8	62.0	5,065.2	6,187.6	5,388.6	1,015.9	87.09
99.8	64.0	5,028.7	6,387.2	5,531.5	1,050.4	86.60
99.8	66.0	4,992.7	6,586.8	5,672.2	1,084.9	86.12
99.8	68.0	4,957.3	6,786.4	5,811.1	1,119.4	85.63
99.8	70.0	4,922.3	6,986.0	5,947.9	1,153.9	85.14

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
99.8	72.0	4,887.8	7,185.6	6,082.8	1,188.4	84.65
99.8	74.0	4,853.6	7,385.2	6,215.6	1,222.9	84.16
99.8	76.0	4,819.7	7,584.8	6,346.3	1,257.4	83.67
99.8	78.0	4,786.1	7,784.4	6,475.0	1,291.9	83.18
99.8	80.0	4,752.7	7,984.0	6,601.5	1,326.4	82.68
99.8	82.0	4,719.4	8,183.6	6,725.8	1,360.9	82.19
99.7	84.0	4,686.2	8,374.8	6,847.8	1,395.4	81.77
99.7	86.0	4,653.1	8,574.2	6,967.5	1,429.9	81.26
99.7	88.0	4,619.9	8,773.6	7,084.7	1,464.4	80.75
99.7	90.0	4,586.7	8,973.0	7,199.5	1,498.9	80.24
99.7	92.0	4,553.3	9,172.4	7,311.6	1,533.4	79.71
99.7	94.0	4,519.8	9,371.8	7,421.1	1,567.9	79.19
99.7	96.0	4,486.0	9,571.2	7,527.6	1,602.4	78.65
99.7	98.0	4,452.0	9,770.6	7,631.4	1,636.9	78.11
99.7	100.0	4,417.6	9,970.0	7,732.1	1,671.4	77.55
99.7	102.0	4,382.8	10,169.4	7,829.5	1,705.9	76.99
99.7	104.0	4,347.6	10,368.8	7,923.7	1,740.4	76.42
99.7	106.0	4,311.9	10,568.2	8,014.4	1,774.9	75.84
99.7	108.0	4,275.7	10,767.6	8,101.6	1,809.4	75.24
99.7	110.0	4,238.8	10,967.0	8,184.8	1,843.9	74.63
99.7	112.0	4,201.3	11,166.4	8,264.2	1,878.4	74.01
99.7	114.0	4,163.1	11,365.8	8,339.5	1,912.9	73.37
99.7	116.0	4,124.1	11,565.2	8,410.3	1,947.4	72.72
99.6	118.0	4,084.3	11,752.8	8,476.7	1,981.9	72.13

nl = rpm with no load

lo = current with no load

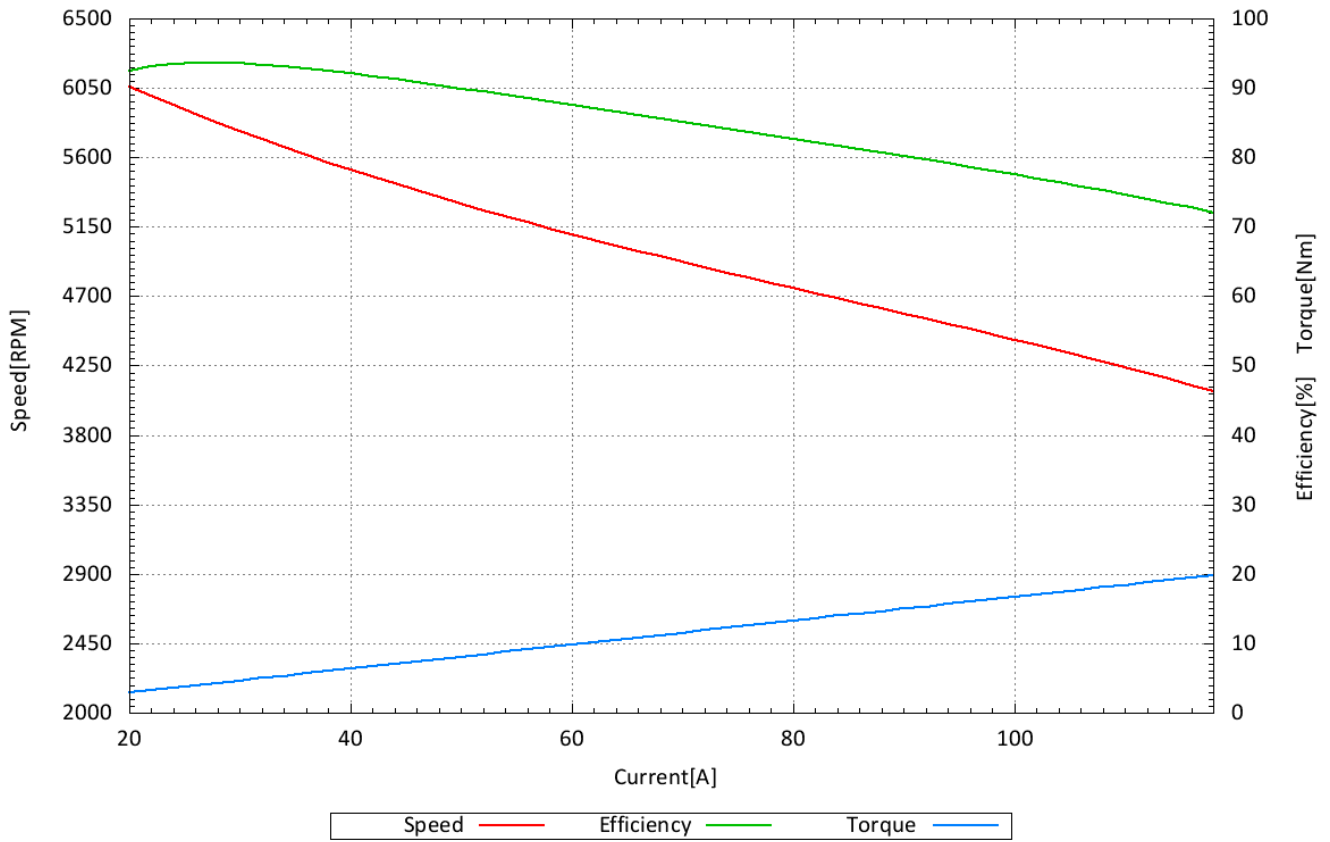
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_25_B12_P30_100V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **110.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 6,930.5 [RPM] lo: 3.2 [A] kv: 63.7 [RPM/V] kn: -22.61 [RPM/A] kT: 17.25 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
109.9	20.0	6,671.4	2,198.0	2,022.5	289.5	92.02
109.9	22.0	6,605.0	2,417.8	2,241.0	324.0	92.69
109.9	24.0	6,540.4	2,637.6	2,455.4	358.5	93.09
109.9	26.0	6,477.6	2,857.4	2,665.8	393.0	93.30
109.9	28.0	6,416.5	3,077.2	2,872.5	427.5	93.35
109.9	30.0	6,357.2	3,297.0	3,075.6	462.0	93.29
109.9	32.0	6,299.4	3,516.8	3,275.3	496.5	93.13
109.9	34.0	6,243.2	3,736.6	3,471.6	531.0	92.91
109.9	36.0	6,188.5	3,956.4	3,664.8	565.5	92.63
109.9	38.0	6,135.2	4,176.2	3,854.9	600.0	92.31
109.9	40.0	6,083.3	4,396.0	4,042.0	634.5	91.95
109.9	42.0	6,032.8	4,615.8	4,226.4	669.0	91.56
109.9	44.0	5,983.5	4,835.6	4,408.1	703.5	91.16
109.9	46.0	5,935.4	5,055.4	4,587.1	738.0	90.74
109.9	48.0	5,888.4	5,275.2	4,763.5	772.5	90.30
109.9	50.0	5,842.6	5,495.0	4,937.5	807.0	89.85
109.8	52.0	5,797.8	5,709.6	5,109.1	841.5	89.48
109.8	54.0	5,754.0	5,929.2	5,278.4	876.0	89.02
109.8	56.0	5,711.0	6,148.8	5,445.3	910.5	88.56
109.8	58.0	5,669.0	6,368.4	5,610.1	945.0	88.09
109.8	60.0	5,627.7	6,588.0	5,772.5	979.5	87.62
109.8	62.0	5,587.2	6,807.6	5,932.8	1,014.0	87.15
109.8	64.0	5,547.4	7,027.2	6,091.0	1,048.5	86.68
109.8	66.0	5,508.2	7,246.8	6,246.9	1,083.0	86.20
109.8	68.0	5,469.5	7,466.4	6,400.6	1,117.5	85.73
109.8	70.0	5,431.4	7,686.0	6,552.3	1,152.0	85.25

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
109.8	72.0	5,393.7	7,905.6	6,701.7	1,186.5	84.77
109.8	74.0	5,356.4	8,125.2	6,848.8	1,221.0	84.29
109.8	76.0	5,319.5	8,344.8	6,993.8	1,255.5	83.81
109.8	78.0	5,282.8	8,564.4	7,136.5	1,290.0	83.33
109.8	80.0	5,246.3	8,784.0	7,276.7	1,324.5	82.84
109.8	82.0	5,210.0	9,003.6	7,414.6	1,359.0	82.35
109.7	84.0	5,173.8	9,214.8	7,550.0	1,393.5	81.93
109.7	86.0	5,137.6	9,434.2	7,682.8	1,428.0	81.44
109.7	88.0	5,101.5	9,653.6	7,813.1	1,462.5	80.93
109.7	90.0	5,065.2	9,873.0	7,940.5	1,497.0	80.43
109.7	92.0	5,028.8	10,092.4	8,065.1	1,531.5	79.91
109.7	94.0	4,992.3	10,311.8	8,186.9	1,566.0	79.39
109.7	96.0	4,955.4	10,531.2	8,305.4	1,600.5	78.87
109.7	98.0	4,918.3	10,750.6	8,421.0	1,635.0	78.33
109.7	100.0	4,880.8	10,970.0	8,533.1	1,669.5	77.79
109.7	102.0	4,842.9	11,189.4	8,641.8	1,704.0	77.23
109.7	104.0	4,804.5	11,408.8	8,746.8	1,738.5	76.67
109.7	106.0	4,765.5	11,628.2	8,848.0	1,773.0	76.09
109.7	108.0	4,725.9	11,847.6	8,945.2	1,807.5	75.50
109.7	110.0	4,685.7	12,067.0	9,038.4	1,842.0	74.90
109.7	112.0	4,644.8	12,286.4	9,127.3	1,876.5	74.29
109.7	114.0	4,603.1	12,505.8	9,211.7	1,911.0	73.66
109.7	116.0	4,560.6	12,725.2	9,291.4	1,945.5	73.02
109.6	118.0	4,517.2	12,932.8	9,366.2	1,980.0	72.42

nl = rpm with no load

lo = current with no load

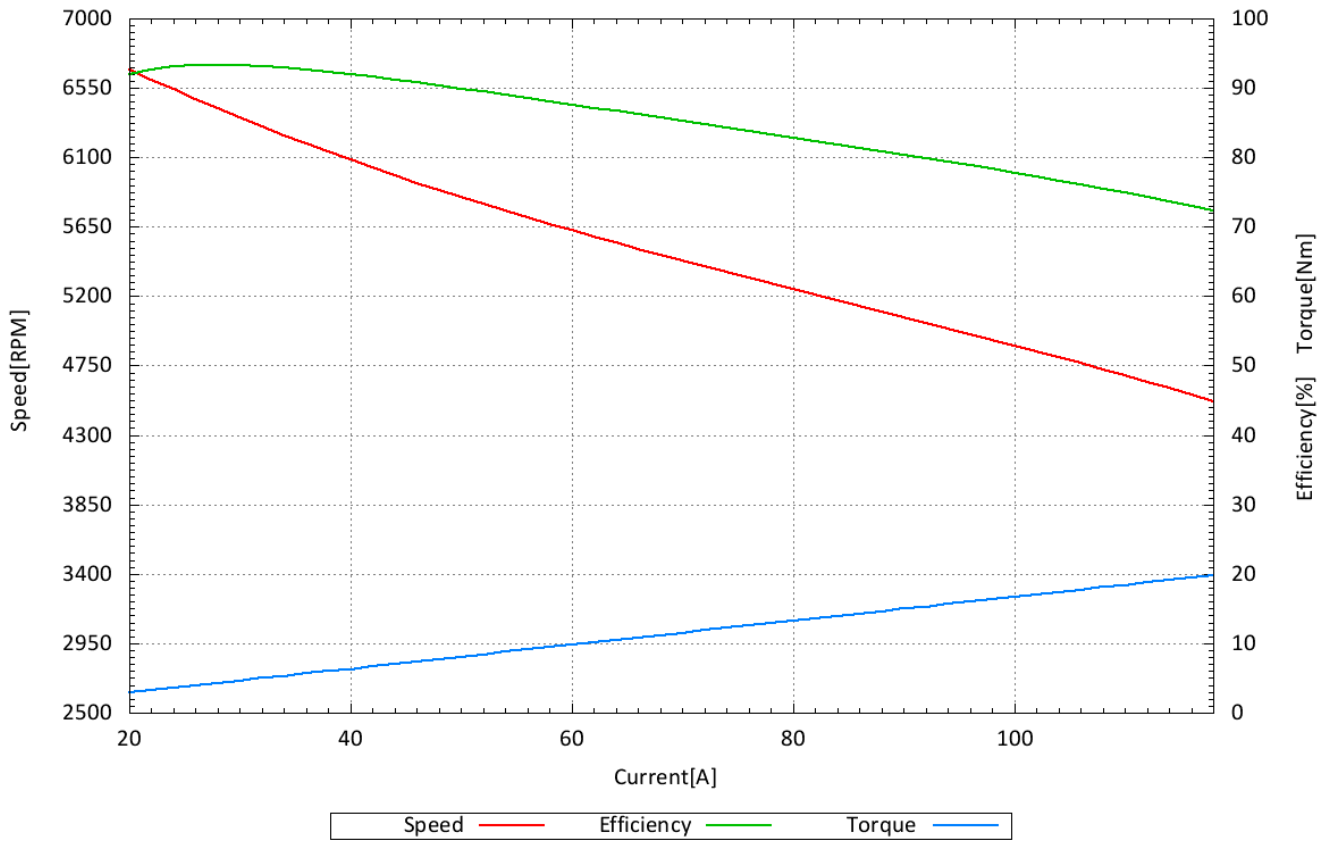
kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

HP875_25_B12_P30_110V_25032024



Report calculated on Test Bench Results

Motor type: **NOVA 15-25-B12 P30**

Date: 25.03.2024

Bearing type: regular

Controller: Common ESC

Measuring Parameter

Voltage: **120.0 [V]**

Throttle setting: 100%

Calculated Motor Constants

nl: 7,557.8 [RPM] lo: 3.3 [A] kv: 63.7 [RPM/V] kn: -24.67 [RPM/A] kT: 17.25 [Ncm/A]

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
119.9	20.0	7,283.8	2,398.0	2,193.7	287.6	91.48
119.9	22.0	7,211.8	2,637.8	2,432.6	322.1	92.22
119.9	24.0	7,141.9	2,877.6	2,667.0	356.6	92.68
119.9	26.0	7,073.8	3,117.4	2,897.1	391.1	92.93
119.9	28.0	7,007.7	3,357.2	3,123.2	425.6	93.03
119.9	30.0	6,943.4	3,597.0	3,345.4	460.1	93.01
119.9	32.0	6,880.8	3,836.8	3,563.9	494.6	92.89
119.9	34.0	6,819.9	4,076.6	3,778.7	529.1	92.69
119.9	36.0	6,760.6	4,316.4	3,990.1	563.6	92.44
119.9	38.0	6,702.9	4,556.2	4,198.2	598.1	92.14
119.9	40.0	6,646.7	4,796.0	4,403.2	632.6	91.81
119.9	42.0	6,591.9	5,035.8	4,605.0	667.1	91.45
119.9	44.0	6,538.5	5,275.6	4,803.9	701.6	91.06
119.9	46.0	6,486.4	5,515.4	5,000.0	736.1	90.66
119.9	48.0	6,435.6	5,755.2	5,193.3	770.6	90.24
119.9	50.0	6,385.9	5,995.0	5,383.9	805.1	89.81
119.8	52.0	6,337.4	6,229.6	5,572.0	839.6	89.44
119.8	54.0	6,289.9	6,469.2	5,757.5	874.1	89.00
119.8	56.0	6,243.4	6,708.8	5,940.5	908.6	88.55
119.8	58.0	6,197.8	6,948.4	6,121.0	943.1	88.09
119.8	60.0	6,153.1	7,188.0	6,299.2	977.6	87.63
119.8	62.0	6,109.3	7,427.6	6,475.1	1,012.1	87.18
119.8	64.0	6,066.1	7,667.2	6,648.4	1,046.6	86.71
119.8	66.0	6,023.6	7,906.8	6,819.5	1,081.1	86.25
119.8	68.0	5,981.8	8,146.4	6,988.3	1,115.6	85.78
119.8	70.0	5,940.5	8,386.0	7,154.6	1,150.1	85.32

Voltage [V]	Current [A]	Speed [RPM]	Input Power [W]	Output Power [W]	Torque [Ncm]	Efficiency ¹ [%]
119.8	72.0	5,899.6	8,625.6	7,318.5	1,184.6	84.85
119.8	74.0	5,859.2	8,865.2	7,480.1	1,219.1	84.38
119.8	76.0	5,819.2	9,104.8	7,639.3	1,253.6	83.90
119.8	78.0	5,779.5	9,344.4	7,795.9	1,288.1	83.43
119.8	80.0	5,740.0	9,584.0	7,950.0	1,322.6	82.95
119.8	82.0	5,700.6	9,823.6	8,101.4	1,357.1	82.47
119.7	84.0	5,661.4	10,054.8	8,250.2	1,391.6	82.05
119.7	86.0	5,622.2	10,294.2	8,396.2	1,426.1	81.56
119.7	88.0	5,583.0	10,533.6	8,539.4	1,460.6	81.07
119.7	90.0	5,543.8	10,773.0	8,679.7	1,495.1	80.57
119.7	92.0	5,504.3	11,012.4	8,816.8	1,529.6	80.06
119.7	94.0	5,464.7	11,251.8	8,950.8	1,564.1	79.55
119.7	96.0	5,424.8	11,491.2	9,081.4	1,598.6	79.03
119.7	98.0	5,384.6	11,730.6	9,208.6	1,633.1	78.50
119.7	100.0	5,344.0	11,970.0	9,332.3	1,667.6	77.96
119.7	102.0	5,302.9	12,209.4	9,452.1	1,702.1	77.42
119.7	104.0	5,261.3	12,448.8	9,568.0	1,736.6	76.86
119.7	106.0	5,219.1	12,688.2	9,679.8	1,771.1	76.29
119.7	108.0	5,176.2	12,927.6	9,787.3	1,805.6	75.71
119.7	110.0	5,132.7	13,167.0	9,890.4	1,840.1	75.12
119.7	112.0	5,088.3	13,406.4	9,988.7	1,874.6	74.51
119.7	114.0	5,043.2	13,645.8	10,082.4	1,909.1	73.89
119.7	116.0	4,997.1	13,885.2	10,170.8	1,943.6	73.25
119.6	118.0	4,950.0	14,112.8	10,253.7	1,978.1	72.66

nl = rpm with no load

lo = current with no load

kV = specific rpm

kn = rpm drop per Amp

kT = torque constant

¹ incl. Controller

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