

## HP 620/40/A2 S P12

Spannung: 25 V

nl=5628.4U/min  
ns=227.2U/min/V

Io=6A  
kn=-8.61U/min/A

kM=4.63Ncm/A

| Spannung<br>[V] | Strom<br>[A] | Drehzahl<br>[U/min] | Pin<br>[W] | Pout<br>[W] | Drehmoment<br>[Ncm] | Wirkungsgrad<br>[%] |
|-----------------|--------------|---------------------|------------|-------------|---------------------|---------------------|
| 24,9            | 30.0         | 5421.7              | 747.0      | 630.7       | 111.1               | 84.44               |
| 24,9            | 34.0         | 5387.3              | 846.2      | 731.2       | 129.6               | 86.41               |
| 24,9            | 38.0         | 5352.8              | 945.2      | 830.3       | 148.1               | 87.85               |
| 24,9            | 42.0         | 5318.4              | 1044.1     | 928.1       | 166.6               | 88.89               |
| 24,8            | 46.0         | 5283.9              | 1143.0     | 1024.5      | 185.2               | 89.64               |
| 24,8            | 50.0         | 5249.4              | 1241.7     | 1119.7      | 203.7               | 90.17               |
| 24,8            | 54.0         | 5215.0              | 1340.3     | 1213.4      | 222.2               | 90.53               |
| 24,8            | 58.0         | 5180.5              | 1438.8     | 1305.9      | 240.7               | 90.76               |
| 24,8            | 62.0         | 5146.1              | 1537.2     | 1397.0      | 259.2               | 90.88               |
| 24,8            | 66.0         | 5111.6              | 1635.5     | 1486.7      | 277.7               | 90.90               |
| 24,8            | 70.0         | 5077.2              | 1733.7     | 1575.2      | 296.3               | 90.85               |
| 24,8            | 74.0         | 5042.7              | 1831.8     | 1662.2      | 314.8               | 90.74               |
| 24,7            | 78.0         | 5008.3              | 1929.8     | 1748.0      | 333.3               | 90.58               |
| 24,7            | 82.0         | 4973.8              | 2027.6     | 1832.4      | 351.8               | 90.37               |
| 24,7            | 86.0         | 4939.3              | 2125.4     | 1915.5      | 370.3               | 90.12               |
| 24,7            | 90.0         | 4904.9              | 2223.1     | 1997.3      | 388.8               | 89.84               |
| 24,7            | 94.0         | 4870.4              | 2320.6     | 2077.7      | 407.4               | 89.53               |
| 24,7            | 98.0         | 4836.0              | 2418.0     | 2156.7      | 425.9               | 89.19               |
| 24,7            | 102.0        | 4801.5              | 2515.4     | 2234.5      | 444.4               | 88.83               |
| 24,6            | 106.0        | 4767.1              | 2612.6     | 2310.9      | 462.9               | 88.45               |
| 24,6            | 110.0        | 4732.6              | 2709.7     | 2385.9      | 481.4               | 88.05               |
| 24,6            | 114.0        | 4698.2              | 2806.8     | 2459.7      | 499.9               | 87.63               |
| 24,6            | 118.0        | 4663.7              | 2903.7     | 2532.1      | 518.5               | 87.20               |
| 24,6            | 122.0        | 4629.2              | 3000.5     | 2603.1      | 537.0               | 86.76               |
| 24,6            | 126.0        | 4594.8              | 3097.2     | 2672.8      | 555.5               | 86.30               |
| 24,6            | 130.0        | 4560.3              | 3193.8     | 2741.2      | 574.0               | 85.83               |
| 24,6            | 134.0        | 4525.9              | 3290.2     | 2808.3      | 592.5               | 85.35               |
| 24,5            | 138.0        | 4491.4              | 3386.6     | 2874.0      | 611.0               | 84.86               |
| 24,5            | 142.0        | 4457.0              | 3482.9     | 2938.4      | 629.6               | 84.37               |
| 24,5            | 146.0        | 4422.5              | 3579.0     | 3001.4      | 648.1               | 83.86               |
| 24,5            | 150.0        | 4388.0              | 3675.1     | 3063.1      | 666.6               | 83.35               |
| 24,5            | 154.0        | 4353.6              | 3771.0     | 3123.5      | 685.1               | 82.83               |
| 24,5            | 158.0        | 4319.1              | 3866.9     | 3182.5      | 703.6               | 82.30               |
| 24,5            | 162.0        | 4284.7              | 3962.6     | 3240.2      | 722.1               | 81.77               |
| 24,4            | 166.0        | 4250.2              | 4058.3     | 3296.6      | 740.7               | 81.23               |
| 24,4            | 170.0        | 4215.8              | 4153.8     | 3351.6      | 759.2               | 80.69               |
| 24,4            | 174.0        | 4181.3              | 4249.2     | 3405.3      | 777.7               | 80.14               |
| 24,4            | 178.0        | 4146.9              | 4344.5     | 3457.6      | 796.2               | 79.59               |
| 24,4            | 182.0        | 4112.4              | 4439.7     | 3508.6      | 814.7               | 79.03               |
| 24,4            | 186.0        | 4077.9              | 4534.8     | 3558.3      | 833.2               | 78.47               |
| 24,4            | 190.0        | 4043.5              | 4629.8     | 3606.6      | 851.8               | 77.90               |
| 24,4            | 194.0        | 4009.0              | 4724.7     | 3653.6      | 870.3               | 77.33               |
| 24,3            | 198.0        | 3974.6              | 4819.5     | 3699.3      | 888.8               | 76.76               |

## HP 620/40/A2 S P12

Spannung: 40 V

$n_l=8929.2\text{U/min}$   
 $n_s=223.9\text{U/min/V}$

$I_o=5.8\text{A}$   
 $k_n=-11.69\text{U/min/A}$

$k_M=4.55\text{Ncm/A}$

| Spannung<br>[V] | Strom<br>[A] | Drehzahl<br>[U/min] | Pin<br>[W] | Pout<br>[W] | Drehmoment<br>[Ncm] | Wirkungsgrad<br>[%] |
|-----------------|--------------|---------------------|------------|-------------|---------------------|---------------------|
| 40.1            | 20.0         | 8763.0              | 802.2      | 593.3       | 64.6                | 73.96               |
| 40.1            | 25.0         | 8704.5              | 1002.3     | 796.6       | 87.4                | 79.48               |
| 40.1            | 30.0         | 8646.1              | 1202.3     | 997.2       | 110.1               | 82.94               |
| 40.1            | 35.0         | 8587.6              | 1402.1     | 1194.9      | 132.9               | 85.23               |
| 40.0            | 40.0         | 8529.2              | 1601.7     | 1389.9      | 155.6               | 86.78               |
| 40.0            | 45.0         | 8470.7              | 1801.2     | 1582.1      | 178.4               | 87.84               |
| 40.0            | 50.0         | 8412.3              | 2000.5     | 1771.5      | 201.1               | 88.55               |
| 40.0            | 55.0         | 8353.8              | 2199.7     | 1958.2      | 223.8               | 89.02               |
| 40.0            | 60.0         | 8295.4              | 2398.6     | 2142.0      | 246.6               | 89.30               |
| 40.0            | 65.0         | 8236.9              | 2597.5     | 2323.1      | 269.3               | 89.44               |
| 39.9            | 70.0         | 8178.5              | 2796.1     | 2501.4      | 292.1               | 89.46               |
| 39.9            | 75.0         | 8120.0              | 2994.6     | 2676.9      | 314.8               | 89.39               |
| 39.9            | 80.0         | 8061.6              | 3192.9     | 2849.6      | 337.5               | 89.25               |
| 39.9            | 85.0         | 8003.1              | 3391.1     | 3019.5      | 360.3               | 89.04               |
| 39.9            | 90.0         | 7944.7              | 3589.1     | 3186.7      | 383.0               | 88.79               |
| 39.9            | 95.0         | 7886.3              | 3786.9     | 3351.1      | 405.8               | 88.49               |
| 39.8            | 100.0        | 7827.8              | 3984.6     | 3512.6      | 428.5               | 88.16               |
| 39.8            | 105.0        | 7769.4              | 4182.1     | 3671.4      | 451.3               | 87.79               |
| 39.8            | 110.0        | 7710.9              | 4379.4     | 3827.5      | 474.0               | 87.40               |
| 39.8            | 115.0        | 7652.5              | 4576.6     | 3980.7      | 496.7               | 86.98               |
| 39.8            | 120.0        | 7594.0              | 4773.6     | 4131.1      | 519.5               | 86.54               |
| 39.8            | 125.0        | 7535.6              | 4970.5     | 4278.8      | 542.2               | 86.08               |
| 39.7            | 130.0        | 7477.1              | 5167.1     | 4423.7      | 565.0               | 85.61               |
| 39.7            | 135.0        | 7418.7              | 5363.7     | 4565.8      | 587.7               | 85.12               |
| 39.7            | 140.0        | 7360.2              | 5560.0     | 4705.1      | 610.4               | 84.62               |
| 39.7            | 145.0        | 7301.8              | 5756.2     | 4841.6      | 633.2               | 84.11               |
| 39.7            | 150.0        | 7243.3              | 5952.2     | 4975.3      | 655.9               | 83.59               |
| 39.7            | 155.0        | 7184.9              | 6148.1     | 5106.3      | 678.7               | 83.06               |
| 39.6            | 160.0        | 7126.4              | 6343.8     | 5234.5      | 701.4               | 82.51               |
| 39.6            | 165.0        | 7068.0              | 6539.3     | 5359.9      | 724.2               | 81.96               |
| 39.6            | 170.0        | 7009.5              | 6734.7     | 5482.5      | 746.9               | 81.41               |
| 39.6            | 175.0        | 6951.1              | 6929.9     | 5602.3      | 769.6               | 80.84               |
| 39.6            | 180.0        | 6892.6              | 7124.9     | 5719.3      | 792.4               | 80.27               |

## HP 620/40/A2 S P12

Spannung: 45 V

$n_l=9977.1\text{U/min}$   
 $n_s=223.3\text{U/min/V}$

$I_o=7.3\text{A}$   
 $k_n=-12.5\text{U/min/A}$

$k_M=4.65\text{Ncm/A}$

| Spannung<br>[V] | Strom<br>[A] | Drehzahl<br>[U/min] | Pin<br>[W] | Pout<br>[W] | Drehmoment<br>[Ncm] | Wirkungsgrad<br>[%] |
|-----------------|--------------|---------------------|------------|-------------|---------------------|---------------------|
| 45.0            | 20.0         | 9818.4              | 900.6      | 607.2       | 59.1                | 67.43               |
| 45.0            | 25.0         | 9755.9              | 1125.3     | 841.0       | 82.3                | 74.74               |
| 45.0            | 30.0         | 9693.5              | 1349.8     | 1071.8      | 105.6               | 79.40               |
| 45.0            | 35.0         | 9631.0              | 1574.2     | 1299.5      | 128.9               | 82.55               |
| 45.0            | 40.0         | 9568.5              | 1798.4     | 1524.2      | 152.1               | 84.75               |
| 44.9            | 45.0         | 9506.0              | 2022.4     | 1745.8      | 175.4               | 86.32               |
| 44.9            | 50.0         | 9443.5              | 2246.3     | 1964.4      | 198.6               | 87.45               |
| 44.9            | 55.0         | 9381.0              | 2470.0     | 2179.9      | 221.9               | 88.26               |
| 44.9            | 60.0         | 9318.6              | 2693.5     | 2392.4      | 245.2               | 88.82               |
| 44.9            | 65.0         | 9256.1              | 2916.9     | 2601.9      | 268.4               | 89.20               |
| 44.9            | 70.0         | 9193.6              | 3140.1     | 2808.3      | 291.7               | 89.43               |
| 44.8            | 75.0         | 9131.1              | 3363.1     | 3011.7      | 315.0               | 89.55               |
| 44.8            | 80.0         | 9068.6              | 3585.9     | 3212.0      | 338.2               | 89.57               |
| 44.8            | 85.0         | 9006.1              | 3808.6     | 3409.3      | 361.5               | 89.52               |
| 44.8            | 90.0         | 8943.6              | 4031.1     | 3603.5      | 384.8               | 89.39               |
| 44.8            | 95.0         | 8881.2              | 4253.4     | 3794.7      | 408.0               | 89.21               |
| 44.8            | 100.0        | 8818.7              | 4475.6     | 3982.8      | 431.3               | 88.99               |
| 44.7            | 105.0        | 8756.2              | 4697.6     | 4167.9      | 454.5               | 88.72               |
| 44.7            | 110.0        | 8693.7              | 4919.4     | 4350.0      | 477.8               | 88.42               |
| 44.7            | 115.0        | 8631.2              | 5141.0     | 4529.0      | 501.1               | 88.09               |
| 44.7            | 120.0        | 8568.7              | 5362.5     | 4704.9      | 524.3               | 87.74               |
| 44.7            | 125.0        | 8506.3              | 5583.8     | 4877.8      | 547.6               | 87.36               |
| 44.7            | 130.0        | 8443.8              | 5804.9     | 5047.7      | 570.9               | 86.96               |
| 44.6            | 135.0        | 8381.3              | 6025.9     | 5214.5      | 594.1               | 86.54               |
| 44.6            | 140.0        | 8318.8              | 6246.7     | 5378.3      | 617.4               | 86.10               |
| 44.6            | 145.0        | 8256.3              | 6467.3     | 5539.1      | 640.7               | 85.65               |
| 44.6            | 150.0        | 8193.8              | 6687.8     | 5696.8      | 663.9               | 85.18               |
| 44.6            | 155.0        | 8131.3              | 6908.1     | 5851.4      | 687.2               | 84.70               |
| 44.6            | 160.0        | 8068.9              | 7128.2     | 6003.0      | 710.4               | 84.22               |
| 44.5            | 165.0        | 8006.4              | 7348.1     | 6151.6      | 733.7               | 83.72               |
| 44.5            | 170.0        | 7943.9              | 7567.9     | 6297.1      | 757.0               | 83.21               |
| 44.5            | 175.0        | 7881.4              | 7787.5     | 6439.6      | 780.2               | 82.69               |
| 44.5            | 180.0        | 7818.9              | 8006.9     | 6579.0      | 803.5               | 82.17               |