|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $$Test$$ | $$m\_{b}$$ | $$m\_{p}$$ | $$∆m$$ | V | i | $$P\_{0}$$ | $$v$$ | *F* | *T* | n | ω | $$P\_{m}$$ | η |
|  | (kg) | (kg) | (kg) | (V) | (A) | (W) | (m/mnt) | (N) | (N.m) | (rpm) | (rad/s) | (W) | (%) |
| 1 | 0.5 | 0.9 | 0.4 | 30.7 | 1.55 | 47.59 | 276 | 3.92 | 0.78 | 219.69 | 23.01 | 17.95 | 37.72 |
| 2 | 1.0 | 1.9 | 0.9 | 29.6 | 2.35 | 69.56 | 260 | 8.83 | 1.77 | 206.96 | 21.67 | 38.36 | 55.14 |
| 3 | 1.5 | 2.9 | 1.4 | 28.7 | 3.11 | 89.26 | 254 | 13.73 | 2.75 | 202.18 | 21.17 | 58.22 | 65.22 |
| 4 | 2.0 | 3.9 | 1.9 | 27.9 | 3.85 | 107.42 | 245 | 18.64 | 3.73 | 195.02 | 20.42 | 76.17 | 70.91 |
| 5 | 2.5 | 4.8 | 2.3 | 26.7 | 4.52 | 120.68 | 234 | 22.56 | 4.51 | 186.26 | 19.51 | 87.99 | 72.91 |
| 6 | 3.0 | 5.8 | 2.8 | 25.8 | 5.22 | 134.68 | 225 | 27.47 | 5.45 | 179.11 | 18.76 | 102.24 | 75.92 |
| 7 | 3.5 | 6.6 | 3.1 | 24.9 | 5.88 | 146.41 | 216 | 30.41 | 6.08 | 171.94 | 18.01 | 109.50 | 74.79 |

***Tabel 4.1.*** *Pengolahan Data Hasil Perhitungan Pada Pengujian Motor DC Berbeban*

Keterangan **:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | $$m\_{b}$$ | : | Massa bandul (kg) |  | $$v$$ | : Kecepatan tangensial (m/menit) | * g : Gravitasi bumi (9.81 m/s2 )
 |
|  | $$m\_{p}$$ | : | Massa timbangan pegas (kg) |  | $$P\_{m}$$ | : Daya Mekanik (watt) | * 1 Put : 2 $π rad $ (1/6,28 rad)
 |
|  | $∆$m | : | Harga selisih Massa (kg) |  | $$T$$ | : Torsi (N.m)  |  |
|  | v | : | Tegangan (V) |  | n | : Putaran (rpm) |  |
|  | i | : | Arus yang mengalir (A) |  | F | : Gaya yang bekerja (N) |  |
|  | $$P\_{0}$$ | : | Daya awal (watt) |  | $$η$$ |  : Effisiensi (%) |
|  | $$ω$$ | : | Kecepatan sudut  |  | r |  : Jari-jari (0.2 m)  |