LAMPIRAN

**Analisa perhitungan temperatur maksimum (T3).**

Siklus Volume Konstan Pada Tmaks = 1000 oC

|  |  |  |  |
| --- | --- | --- | --- |
| **Proses** | **Temperatur, K** | **Kalor masuk, J** | **Kerja, J** |
| 0 - 1 | T0 = 0 | 0 | 13,88 |
| 1 - 2 | T1  = 303 | 0 | -67,87 |
| 2 -3 | T2 = 727,2 | 88,89 | 0 |
| 3 -4 | **T3 = 1273** | 0 | 120,17 |
| 4 - 1 | T4 = 521,93 | -35,65 | 0 |
| 1 – 0 |  | 0 | -15,87 |
| **Wnetto**  | 124,54 J |
| **Prata-rata** | 8,05 kg/cm3 |
| $$η$$ | 0,58 |
| **N** | 11,74 HP |

Siklus Volume Konstan Pada Tmaks = 1100 oC

|  |  |  |  |
| --- | --- | --- | --- |
| **Proses** | **Temperatur, K** | **Kalor masuk, J** | **Kerja, J** |
| 0 - 1 | T0 = 0 | 0 | 13,88 |
| 1 - 2 | T1  = 303 | 0 | -67,87 |
| 2 -3 | T2 = 727,2 | 105,17 | 0 |
| 3 -4 | **T3 = 1373** | 0 | 129,61 |
| 4 - 1 | T4 = 562,93 | -42,32 | 0 |
| 1 – 0 |  | 0 | -15,87 |
| **Wnetto**  | 147,49 J |
| **Prata-rata** | 9,59 kg/cm3 |
| $$η$$ | 0,58 |
| **N** | 13,99 HP |

Siklus Volume Konstan Pada Tmaks = 1200 oC

|  |  |  |  |
| --- | --- | --- | --- |
| **Proses** | **Temperatur, K** | **Kalor masuk, J** | **Kerja, J** |
| 0 - 1 | T0 = 0 | 0 | 13,88 |
| 1 - 2 | T1  = 303 | 0 | -67,87 |
| 2 -3 | T2 = 727,2 | 121,46 | 0 |
| 3 -4 | **T3 = 1473** | 0 | 139,05 |
| 4 - 1 | T4 = 521,93 | -49.01 | 0 |
| 1 – 0 |  | 0 | -15,87 |
| **Wnetto**  | 170,40 J |
| **Prata-rata** | 11,08 kg/cm3 |
| $$η$$ | 0,58 |
| **N** | 16,16 HP |

Siklus Volume Konstan Pada Tmaks = 1300 oC

|  |  |  |  |
| --- | --- | --- | --- |
| **Proses** | **Temperatur, K** | **Kalor masuk, J** | **Kerja, J** |
| 0 - 1 | T0 = 0 | 0 | 13,88 |
| 1 - 2 | T1  = 303 | 0 | -67,87 |
| 2 -3 | T2 = 727,2 | 137,75 | 0 |
| 3 -4 | **T3 = 1573** | 0 | 148,49 |
| 4 - 1 | T4 = 521,93 | -55,68 | 0 |
| 1 – 0 |  | 0 | -15,87 |
| **Wnetto**  | 193,43 J |
| **Prata-rata** | 12,58 kg/cm3 |
| $$η$$ | 0,58 |
| **N** | 18,34 HP |

Siklus Volume Konstan Pada Tmaks = 1400 oC

|  |  |  |  |
| --- | --- | --- | --- |
| **Proses** | **Temperatur, K** | **Kalor masuk, J** | **Kerja, J** |
| 0 - 1 | T0 = 0 | 0 | 13,88 |
| 1 - 2 | T1  = 303 | 0 | -67,87 |
| 2 -3 | T2 = 727,2 | 154,036 | 0 |
| 3 -4 | **T3 = 1673** | 0 | 157,93 |
| 4 - 1 | T4 = 521,93 | -35,65 | 0 |
| 1 – 0 |  | 0 | -15,87 |
| **Wnetto**  | 216,398 J |
| **Prata-rata** | 14,06 kg/cm3 |
| $$η$$ | 0,58 |
| **N** | 20,51 HP |