

LAMPIRAN

A. LAMPIRAN PERHITUNGAN

Berikut ini merupakan perhitungan efisiensi dengan data pada hari Selasa, 18 Juni 2024.

1. Jam 07.00

$$Efisiensi = \left| \frac{4.11-3.99}{3.99} \right| \times 100\%$$

$$Efisiensi = 3.15\%$$

2. Jam 08.00

$$Efisiensi = \left| \frac{22.1-23.52}{23.52} \right| \times 100\%$$

$$Efisiensi = 6.42\%$$

3. Jam 09.00

$$Efisiensi = \left| \frac{47.62-41.92}{41.92} \right| \times 100\%$$

$$Efisiensi = 13.6\%$$

4. Jam 10.00

$$Efisiensi = \left| \frac{67.97-52.4}{52.4} \right| \times 100\%$$

$$Efisiensi = 29.71\%$$

5. Jam 11.00

$$Efisiensi = \left| \frac{82.55-64.19}{64.19} \right| \times 100\%$$

$$Efisiensi = 28.61\%$$

6. Jam 12.00

$$Efisiensi = \left| \frac{90.08-66.64}{66.64} \right| \times 100\%$$

$$Efisiensi = 35.17\%$$

7. Jam 13.00

$$Efisiensi = \left| \frac{89.84-66}{66} \right| \times 100\%$$

$$Efisiensi = 36.13\%$$

8. Jam 14.00

$$Efisiensi = \left| \frac{81.37-63.36}{63.36} \right| \times 100\%$$

$$Efisiensi = 28.43\%$$

9. Jam 15.00

$$Efisiensi = \left| \frac{62.32-45.85}{45.85} \right| \times 100\%$$

$$Efisiensi = 35.93\%$$

10. Jam 16.00

$$Efisiensi = \left| \frac{35.86-34.06}{34.06} \right| \times 100\%$$

$$Efisiensi = 5.3\%$$

11. Jam 17.00

$$Efisiensi = \left| \frac{15.64-14.3}{14.3} \right| \times 100\%$$

$$Efisiensi = 9.37\%$$

$$Efisiensi Rata - Rata = 21.08\%$$

Berikut ini merupakan perhitungan efisiensi dengan data pada hari Rabu, 19 Juni 2024.

12. Jam 07.00

$$Efisiensi = \left| \frac{4.704-3.96}{3.96} \right| \times 100\%$$

$$Efisiensi = 18.78\%$$

13. Jam 08.00

$$Efisiensi = \left| \frac{24.343-18.76}{18.76} \right| \times 100\%$$

$$Efisiensi = 29.76\%$$

14. Jam 09.00

$$Efisiensi = \left| \frac{47.275-35.36}{35.36} \right| \times 100\%$$

$$Efisiensi = 33.69\%$$

15. Jam 10.00

$$Efisiensi = \left| \frac{57.27-44.48}{44.48} \right| \times 100\%$$

$$Efisiensi = 28.7\%$$

16. Jam 11.00

$$Efisiensi = \left| \frac{70.91-59.64}{59.64} \right| \times 100\%$$

$$Efisiensi = 18.90\%$$

17. Jam 12.00

$$Efisiensi = \left| \frac{46.33-39.26}{39.26} \right| \times 100\%$$

$$Efisiensi = 18.01\%$$

18. Jam 13.00

$$Efisiensi = \left| \frac{57.03-49.17}{49.17} \right| \times 100\%$$

$$Efisiensi = 16\%$$

19. Jam 14.00

$$Efisiensi = \left| \frac{50.33-43.5}{43.5} \right| \times 100\%$$

$$Efisiensi = 15.70\%$$

20. Jam 15.00

$$Efisiensi = \left| \frac{41.16-35.75}{35.75} \right| \times 100\%$$

$$Efisiensi = 15.10\%$$

21. Jam 16.00

$$Efisiensi = \left| \frac{26.34-23.97}{23.97} \right| \times 100\%$$

$$Efisiensi = 9.89\%$$

22. Jam 17.00

$$Efisiensi = \left| \frac{10.70-8.34}{8.34} \right| \times 100\%$$

$$Efisiensi = 28.3\%$$

$$Efisiensi Rata Rata = 21.10\%$$

Berikut ini merupakan perhitungan efisiensi dengan data pada hari Kamis, 20 Juni 2024.

1. Jam 07.00

$$Efisiensi = \left| \frac{1.52-1.32}{1.32} \right| \times 100\%$$

$$Efisiensi = 15.81\%$$

2. Jam 08.00

$$Efisiensi = \left| \frac{20.10-17.29}{17.29} \right| \times 100\%$$

$$Efisiensi = 16.30\%$$

3. Jam 09.0

$$Efisiensi = \left| \frac{45.15-40.5}{40.5} \right| \times 100\%$$

$$Efisiensi = 11.5\%$$

4. Jam 10.00

$$Efisiensi = \left| \frac{65.38-48.3}{48.3} \right| \times 100\%$$

$$Efisiensi = 35.37\%$$

5. Jam 11.00

$$Efisiensi = \left| \frac{79.96-67.21}{67.21} \right| \times 100\%$$

$$Efisiensi = 18.98\%$$

6. Jam 12.00

$$Efisiensi = \left| \frac{87.37-72}{72} \right| \times 100\%$$

$$Efisiensi = 21.35\%$$

7. Jam 13.00

$$Efisiensi = \left| \frac{86.90-73.5}{73.5} \right| \times 100\%$$

$$Efisiensi = 18.24\%$$

8. Jam 14.00

$$Efisiensi = \left| \frac{78.43-65.32}{65.32} \right| \times 100\%$$

$$Efisiensi = 20.08\%$$

9. Jam 15.00

$$Efisiensi = \left| \frac{59.50-46.2}{46.2} \right| \times 100\%$$

$$Efisiensi = 28.8\%$$

10. Jam 16.00

$$Efisiensi = \left| \frac{35.86-26.4}{26.4} \right| \times 100\%$$

$$Efisiensi = 35.8\%$$

11. Jam 17.00

$$Efisiensi = \left| \frac{14.81-14.41}{14.41} \right| \times 100\%$$

$$Efisiensi = 2.82\% \quad Efisiensi \text{ Rata - Rata} = 20.46\%$$

B. LAMPIRAN DOKUMENTASI DATA

Selasa, 18 Juni 2024						
Jam	Suhu	Tanpa Beban (DC)		Dengan Beban (AC)		Radiasi
		Tegangan (V)	Arus (Q)	Tegangan (Volt)	Arus (ampere)	
07.00	36.6	13.3	0.3	218	0.4	35
08.00	36.9	13	1.7	230	0.7	200
09.00	39	13.1	3.2	228	0.5	405
10.00	46.8	13.1	4	230	0.7	578
11.00	62.5	13.1	4.9	230	0.5	702
12.00	50.5	13.6	4.9	227	0.6	766
13.00	43.8	13.2	5	233	0.5	764
14.00	53.4	13.2	4.8	228	0.6	692
15.00	45.3	13.1	3.5	229	0.5	530
16.00	40.5	13.1	2.6	229	0.5	305
17.00	35.3	13	1.1	228	0.5	133

Tegangan (V)	Arus (Q)	Aktualisasi Daya (P)
13.3	0.3	3.99
13	1.7	22.1
13.1	3.2	41.92
13.1	4	52.4
13.1	4.9	64.19
13.6	4.9	66.64
13.2	5	66
13.2	4.8	63.36
13.1	3.5	45.85
13.1	2.6	34.06
13	1.1	14.3

Rabu, 19 Juni 2024

Jam	Suhu	Tanpa Beban (DC)		Dengan Beban (AC)		Radiasi
		Tegangan (V)	Arus (Q)	Tegangan (V)	Arus (Q)	
07.00	28.3	13.2	0.3	227	1	40
08.00	37.1	13.4	1.4	227	1.2	207
09.00	39.3	13.6	2.6	228	1.3	402
10.00	41.4	13.9	3.2	227	1.3	487
11.00	53.2	14.2	4.2	228	1.4	603
12.00	66.1	15.1	2.6	229	1.2	394
13.00	59.1	14.9	3.3	229	1.2	485
14.00	53.2	14.5	3	231	1.4	428
15.00	43.9	14.3	2.5	227	1.2	350
16.00	34.8	14.1	1.7	227	1.2	224
17.00	34	13.9	0.6	226	1	91

Tegangan (V)	Arus (Q)	Aktualisasi Daya (P)
13.2	0.3	3.96
13.4	1.4	18.76
13.6	2.6	35.36
13.9	3.2	44.48
14.2	4.2	59.64
15.1	2.6	39.26
14.9	3.3	49.17
14.5	3	43.5
14.3	2.5	35.75
14.1	1.7	23.97
13.9	0.6	8.34

Kamis, 20 Juni 2024						
Jam	Suhu	Tanpa Beban (DC)		Dengan Beban (AC)		Radiasi
		Tegangan (V)	Arus (Q)	Tegangan (V)	Arus (Q)	
07.00	33.7	13.2	0.1	229	0.5	13
08.00	34.6	13.3	1.3	230	0.7	171
09.00	41.1	13.5	3	232	0.7	384
10.00	48.3	13.8	3.5	234	0.8	556
11.00	58.6	14.3	4.7	227	1	680
12.00	64.1	15	4.8	230	1.2	743
13.00	62	14.7	5	231	1.2	739
14.00	55.3	14.2	4.6	231	1	667
15.00	44.6	14	3.3	230	1	506
16.00	34.8	13.2	2	232	1.2	305
17.00	29.2	13.1	1.1	230	1.3	126

Tegangan (V)	Arus (Q)	Aktualisasi Daya (P)
13.2	0.1	1.32
13.3	1.3	17.29
13.5	3	40.5
13.8	3.5	48.3
14.3	4.7	67.21
15	4.8	72
14.7	5	73.5
14.2	4.6	65.32
14	3.3	46.2
13.2	2	26.4
13.1	1.1	14.41

C. LAMPIRAN DOKUMENTASI PENGAMBILAN DATA

