Question: I need help answering the question number 3. I hope you can h...

2. A 50 MW steam power plant supplying power to three substation with a daily maximum demand of 10,000 kW, 20,000 kW and 15,000 kW with a diversity factor of 1.1 in a certain day the following information were gathered:
   Net kW-hr generated 78,500 kW-hr
   Fuel consumption 232,740 kg
   For the given data per day, Determine:
   a) Load factor
   b) Plant Capacity factor
   c) Plant utilization factor
   d) Net station heat rate

3. What is the daily average load in a certain power plant if the daily energy produced is 500,000 kW-hrs.

I need help answering the question **number 3.** I hope you can help me. Please. Kindly show the step by step process and solution. Box the final answer. thankyou so much!

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Expert Answer

Anonymous answered this
1,389 answers

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Solution:- (3) Given data:-

Daily Energy produced = 500,000 kW-hrs.

The daily average load in a certain power plant can be given by:-

$$\text{Daily average load} = \frac{\text{Daily Energy produced}}{\text{Number of hours in a day}}$$

$$\text{Daily average load} = \frac{500{,}000 \text{ kW-hrs}}{24 \text{ hrs}}$$

$$\boxed{\text{Daily average load} = 20{,}833.33 \text{ kW}}$$

Ans

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kindly please show the steps in arriving to the answer. also please include the formula used and the figure. box th...

1. Steam with h = 2442.6 kJ/kg flows at the constant temperature of 48.9 C the cond water (Cp = 4.187 kJ/kg) enters at 24.4 adiabatic steady flow system with ΔPE

See answer

kindly please show the steps in arriving to the answer. also please include the formula used and the figure. box fin...

See answer

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Q: kindly please show the steps in arriving to the answer. also please include the formula used and the figure. box the final answer. thank you!

A: See answer

Q: 5. A 305 mm x 457 mm four stroke single acting diesel engine is rated at 150KW at 260rpm. Fuel consumption at rated load is 0.26 kg/KW-hr with a heating value of 43,912 kJ/kg. Calculate the brake heat rate.

A: See answer

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