

QUIZ "I PRODUCE ENERGY"

1 / A 12 volts light bulb consumes 5 amps. How powerful is it?

2 / A 750-watt drill works for 5 minutes. A television in sleep mode uses 4 Watts. It stays on for 10 days. Which will use the most energy and how much?

3 / Which unit can express the warmth released by a log of 1 kg during its combustion?

4 / How can we store electrical energy?

5 / Why do we use alternating current?

6 / How many times does the mains power change flow direction in one second?

7 / Why does it change direction so often?

8 / what kind of appliances work on direct current?

9 / How can we convert alternating current into direct current?

10 / Why are the lines that carry the current from a nuclear or hydroelectric plant EHV lines (extra high voltage)?

11 / Why are the wires of the battery clamps so big?

12 / What happens when a too large electric charge passes through a wire?

13 / What is a differential circuit breaker used for?

14 / What is the grounding connection?

15 / How can you produce electricity without an alternator?

16 / What is the difference between an alternator and a permanent magnet generator?

17 / What are the advantages of connecting the generator directly to the electricity grid? And what are the advantages of an installation non-connected to the public grid?

18 / which transformations will the alternating current output of generator need before being injected in the network which is itself alternating?

19 / How do you know which size of wind turbine to choose?

20 / A glass bottle filled with water stays all day in the sun. How efficient is this device?

Subsidiary question!

Why is the ratio of calories consumed by insects compared to calories produced better than that of farmyard animals?