1%) Problem 6: A DC power line for a light-rail system carries 1250 A at an angle of 29? to the Earth's 5.00 x 10-5 T magnetic field. Randomized VariablesI = 1250 A l = 75 m ?, = 29 ?: nbabydrame@my.gcu 4A90-8D-36-48-9913-28671

(a) A DC power line for a light-rail system carries 1000 A at an angle of 30.0? to the Earth's 5.00 x 10^{-5} T field. What is the force on a 100-m section of OpenStax College Physics, Chapter 22, Problem 35 (Problems & Exercises)

Short Answer. Expert verified. The force on the 100-meter section of the light-rail system's DC power line is 2.50 N. Practical concerns include material fatigue, maintenance issues, and ???

A DC POWER LINE FOR A LIGHT-RAIL SYSTEM CARRIES

Answer to (14%) Problem 3: A DC power line for a light-rail. Science; Physics; Physics questions and answers (14%) Problem 3: A DC power line for a light-rail system carries 750 A at an angle of 29" to the Earth's 5.00 x 10? T magnetic field Randomized Variables -750 A ?? What is the magnitude of the force (in N) on a 95 m section of this line?

(a) A DC power line for a light-rail system carries 1000 A at an angle of 30.0??? to the Earth's 5.00x10???5???T field. What is the force on a 100???m section of this line? (b) Discuss practical concerns this presents, if any.

5. (a) A DC power line for a light-rail system carries 1000 A at an angle of 30? to the Earth's 5.00 x 10 ???5-T field. What is the force on a 100-m section of this line? (b) Discuss practical concerns this presents, if any.

A DC POWER LINE FOR A LIGHT-RAIL SYSTEM CARRIES

Instant Solution: To find the force on the power line, we can use the formula: F = IL xB F ??? = I L ??? x B ??? where F F ??? is the force, I I is the current, L L ??? is the length of the ???

Direct current (DC) applications are abundant in electrical systems and circuitry. DC is the unidirectional flow of electric charge, making it essential for applications where a constant voltage is required. Our example problem involves a DC power line, which powers a light-rail system, carrying a specified current of (1000text{ A}).

A DC power line for a light-rail system carries 750 A at an angle of 29? to the Earth's 5.00 x 10^-5 T magnetic field. I = 750 A l = 85 m ?, = 29 ? What is the magnitude of the force (in N) on a 85 m section of this line?

A DC POWER LINE FOR A LIGHT-RAIL SYSTEM CARRIES

Question: a) A DC power line for a light-rail system carries 1100 A at an angle of 30.3 to the Earth's 4.95 x10-5 T field. What is the force on a 90-m section of this line? N A proton moves at 7.53 x107m/s perpendicular to a magnetic field. The field causes the proton to travel in a circular path of radius 0.801 m.

(3 points) A DC power line for a light-rail system carries 1000 A at an angle of 30.0? to the Earth's 5.00 x 10-5 T field. What is the force on a 100 m section of this line? Does this seem like a huge concern? 2. 3 points) What is the force per meter on a lightning bolt at the equator that carries 20,000 A perpen- dicular to the Earth's 3.00 x

FREE SOLUTION: Problem 35 (a) A DC power line for a light-rail system carries step by step explanations answered by teachers Vaia Original! Find study content The force on the 100-meter section of the light-rail system's DC power line is 2.50 N. Practical concerns include material fatigue, maintenance issues, and safety risks due to the

A DC POWER LINE FOR A LIGHT-RAIL SYSTEM CARRIES

Question 2 (10 points) Listen A dc power line for a light-rail system carries 1000A at an angle of 30.0? to Earth's 5.0 x 10-5T field. What is the force on a 100-m section of this line? 2.50 N 4.50 N 3.50N 1.50 N Question 3 110 points)

(a) A dc power line for a light-rail system carries 1000 A at an angle of 30.0? to Earth's (displaystyle 5.0x10^{???5}T) field. What is the force on a 100-m section of this line? (b) Discuss practical concerns this presents, if any. 38.

A DC power line for a light-rail system carries 1000 A at an angle of 30.0? to the Earth's 5.00x10???5 -T field. What is the force on a 100-m section of this line? F = 2.5 N. A 0.750-m-long section of cable carrying current to a car starter motor makes an angle of 60o with the Earth's 5.50x10???5 T field. a. What is the current when the wire

A DC POWER LINE FOR A LIGHT-RAIL SYSTEM CARRIES

A DC power line for a light-rail system carries 1200 A at an angle of 32? to the Earth's 5.00 x 10-5 T magnetic field. What is the magnitude of the force (in N) on a 95 m section of this line? ???

A DC power line for a light-rail system carries 1000 A of current at an angle of 30.0? to the Earth's magnetic field. If the Earth's magnetic field strength is 5.00 x 10???5 T at the location of the rail system, what is the force exerted on a 100 m section of ???

A DC power line for a light-rail system carries 950 ?>>?A at an angle of 34? ?>>?to the Earth's 5.00 x 10-5 ?>>?T magnetic field. Your solution's ready to go! Enhanced with AI, our expert help has broken down your problem into an easy-to-learn solution you can count on.

A DC POWER LINE FOR A LIGHT-RAIL SYSTEM CARRIES

A DC power line for a light-rail system carries 850 ?>>?A at an angle of 35deg to the Earths 5.00 times 10-5 ?>>?T magnetic field. Your solution's ready to go! Enhanced with AI, our expert help has broken down your problem into an easy-to-learn solution you can count on.

Direct current (DC) power lines are integral components in electricity distribution, particularly in applications like light-rail systems. They carry a unidirectional, constant current from power generation sites to the places of consumption.

A DC power line for a light-rail system carries 1000 A at an angle of 30.0? to the Earth's 5.00x10???5 -T field. What is the force on a 100-m section of this line? F = 2.2 N. F = 2.5 N. If a single circular loop of wire carries a current of 77 A and produces a magnetic field at its center with a magnitude of 2.30 10-4 T, determine the

A DC POWER LINE FOR A LIGHT-RAIL SYSTEM CARRIES

A DC power line for a light-rail system carries 950 A at an angle of 26" to the Earth's 5.00 x 10 5 T magnetic Problem 5: Randomized Variables 1950 A 95 m Assignment Status Click here for detailed view Problem Status what is the magnitude of the force (in N) on a 95 m section of this line? Grade Summary Potential 100% Aiempls remaining 10 cotan

Question: (a) A DC power line for a light-rail system carries 1,200 A at an angle of 30.0? to the Earth's 5.00 x 10-5 T field. What is the force in N) on a 125 m section of this line? N (b) Discuss practical concerns this presents, if any.

A light-rail system's dc power line, which carries 1000 A at an angle of 30.0? to the Earth's 5.0*10^5T field, exerts 2.5N of force on a 100-m portion of this line.. A force in physics is an effect that has the power to alter an object's motion.A force can cause an object with mass to change its velocity, or accelerate (for example, moving from a condition of rest).

A DC POWER LINE FOR A LIGHT-RAIL SYSTEM CARRIES

Question: (5%) Problem 6: A DC power line for a light-rail system carries 1150 A at an angle of 34? to the Earth's 5.00 x 109 T magnetic field. Randomized Variables 1 = 1150 A 1= 120 m 8= 340 > What is the magnitude of the force (in ???

Key Concepts. Chapter 11: Problem 9. (a) A DC power line for a light-rail system carries 1000 A at an angle of 30.0 ??? to the Earth's 5.00 x 10 ??? 5 ??? T field. What is the force on a 100 ??? m section ???

(a) A DC power line for a light-rail system carries 1000 A at an angle of 30.0? 30.0? to the Earth's 5.00 x 10 ??? 5-T 5.00 x 10 ??? 5-T size 12{5 "." "00" times "10" rSup { size 8{ - 5} } "-T"} {} field. What is the force on a 100-m section of this line? (b) Discuss practical concerns this presents, if any.