

An electric motor is running at 1200 rpm when its power is cut off for 40 seconds, then turned back on. If the rotor weighs 60 lb, has a radius of gyration of 8 in, and experiences a power-on net torque of 100 lb/in and power-off friction torque of 8 lb/in, the rotational speed in rpm of the motor 2 seconds after the power is turned back on is closest to which answer choice?

SHOW WORK

- a. 621
- b. 1085
- c. 21.5
- d. 114