

HORSEPOWER

FACT When a motor is to be replaced, select a motor with adequate power output. Horsepower is the usual measurement of power output. This rating is normally stamped on the nameplate. Motors with horsepower ratings below one horsepower are called fractional horsepower motors.

FACT Horsepower requirements vary as the cube of the speed in air moving applications. In other words, replacing a six pole motor with a four pole requires the four pole motor to have more than three times greater horsepower.

FACT When replacing motors, the horsepower of the defective and the replacement motor should be the same. In motors rated below 1/4 HP, or when the HP rating is not available, matching the current rating is a satisfactory procedure. Do not use a replacement motor whose nameplate ampere rating is less than the defective motor. The replacement motor may have nameplate amps 25% greater than the nameplate amps of the defective motor. Some newer designs may have lower amps per HP rating if they are very efficient.

FACT It is possible to match horsepower ratings by measuring the stack width of the stator laminations in the defective motor and then use a replacement motor with the same stack.

FACT Replacement by the use of a larger horsepower may cause the motor to be underloaded. It could eventually overheat and cause overload trips. The actual ampere reading will be below the full load amp rating on the nameplate.

FACT Do not replace a general purpose motor with a service factor, with a special purpose motor that does not have a service factor.