



A Leader in Electric Motor Testing

Tip Of The Week

July 7, 2014

Basic Motor Characteristics

AC Squirrel Cage Induction Motor – Simplest and rugged construction. Long term reliability. Common uses: Pumps and Fans, Circulating Water Pumps, and Compressors.

AC Wound Rotor Induction Motor – Has an external rotor circuit of which resistance can usually be adjusted allowing control of certain characteristics within limits (torque, current, speed, etc.). Most often used for speed control and special torque applications. Common uses: Cranes and Hoists.

AC Synchronous Motor – Often used in large, low speed applications, and can aid in auxiliary system power factor correction. Common uses: Circulating Water Pumps and Compressors.

DC Motor – Often used in constant speed or adjustable speed applications where acceleration and deceleration is required, or when controlled speed changes over varying ranges. Also used for controlling torque and tension limits. Common uses: Cranes and Hoists, Emergency DC, and Compressors.

Knowing the design of your motor is critical throughout the reliability process. From the motor being properly added to your MCEGold[®] database to ensuring all motor components are getting the necessary testing for proper condition analysis, knowing the motor design is vital to your reliability success.

Source: *Electric Motor Predictive and Preventive Maintenance Guide* – Bechtel Group

You are invited to submit an Electric Motor Testing Tip of your own and receive a free PdMA[®] mug or hat if we publish it! Contact Lou at 813-621-6463 ext. 126 or lou@pdma.com.

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