



A Leader in Electric Motor Testing

Tip Of The Week

December 21, 2020

Final Tip for 2020

Last week we discussed the importance of maintaining motor operating temperature within the motor design temperature to ensure full life expectancy of your insulation system. We also discussed the temperature rise above ambient as a value to determine internal winding temperatures. For the final tip of 2020, we are going to discuss ambient as an important value to record for accurate trending of insulation integrity. Motor insulation has a negative temperature coefficient meaning that as insulation temperature increases, insulation resistance decreases. And the opposite is true that when the insulation temperature decreases, insulation resistance increases. This makes trending measured insulation resistance almost impossible. As a side note, insulation temperature drops rapidly after a motor is shutdown and a Polarization Index (PI) test should not be performed unless you just want to show the effects of rapid cooling on insulation resistance. To assist in trending insulation resistance, entering the ambient temperature in the MCEGold® software before performing resistance-to-ground temperatures will result in a temperature corrected insulation resistance. For even more accurate trending, the inboard bearing temperature or RTD winding temperatures can be used. To see a new video on the insulation fault zone visit the PdMA YouTube Channel at https://www.youtube.com/watch?v=ApX_WxLFDpC

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. 166 or lou@pdma.com.

Copyright 2018 PdMA® Corporation. All rights reserved. The PdMA Tip of the Week is produced by PdMA. PdMA shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon.