

Motor Minute™ Technical Tip – Run Capacitor Ratings and Replacement

Hi, Chris from Regal here with your Motor Minute™ technical tip. Helping you become an HVAC motor pro one minute at a time.

Today we will discuss the ratings and replacement of run capacitors connected to Permanent Split Capacitor (PSC) motors.

Run Capacitor Ratings

Run capacitors are rated by microfarads, voltage and frequency.

- Microfarads are typically listed as “mf”, “MFD, or “uf”.
- Voltage is typically listed as “VAC”.
- Frequency is typically listed as “Hz”.

Run Capacitor Ratings and Replacement

- The required microfarad rating, per motor, is found on the motor rating plate.
- The new capacitor rating should be an exact match and within $\pm 6\%$ of the capacitor rating on the motor to maintain proper performance and life expectancy of the motor.
- The required voltage rating, per motor, is also found on the motor rating plate.
- Most capacitors are rated 370 or 440 VAC. The capacitor applied can be rated higher than or equal to the rating on the motor but must not be rated lower than the rating on the motor.
- The frequency rating of the capacitor must match the motor.

Industry Best Practices Related to Run Capacitors

- Always replace the run capacitor when a PSC motor is replaced.
- Always match the run capacitor ratings to the rating on the PSC motor it will be connected to.
- Never assume two motors have the same capacitor ratings. Always check the rating plate.

And that's a wrap on this segment of Motor Minute™ technical tips. Remember that we provide motor training and product information in multiple formats including videos, literature, podcasts, articles, of course Motor Minute technical tips and classroom education both online and face to face. All of this industry leading training is available at no charge to HVAC professionals at regalmmu.com. Thank you for taking the time to build your motor knowledge.