



# Tech Tip March 2026

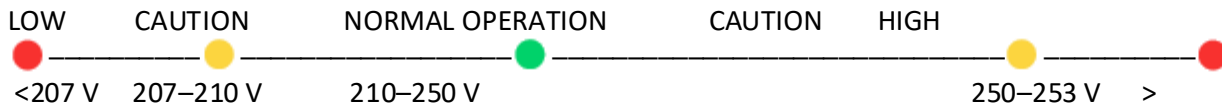


## “Power Trip”

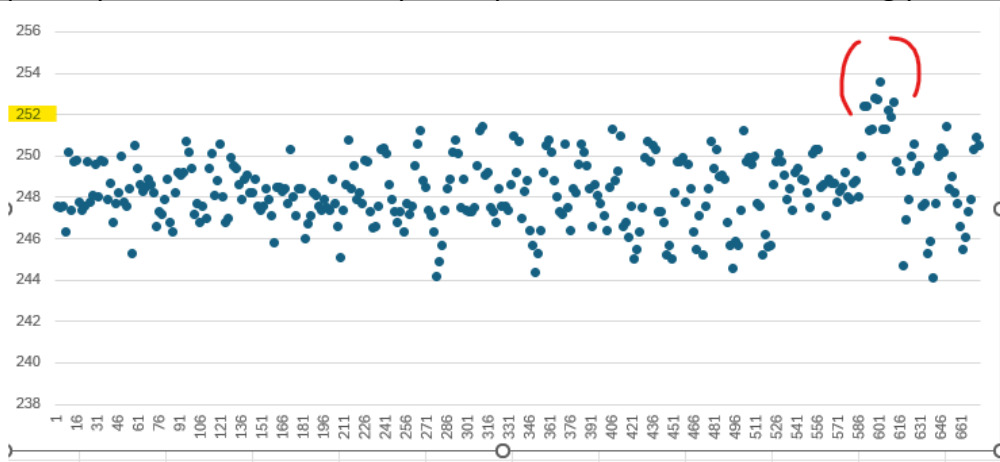
### The Importance of Steady Voltage for reliable performance

Proper supply voltage is critical for the reliable operation and service life of HVAC equipment. Voltage outside recommended ranges can result in premature equipment failure, multiple component failure of the same type (Such as blower/fan motors), excess warranty cost and upset customers.

Voltage Gauge – 230 V HVAC Equipment



Field measurements show most supply voltages fall between **246 V and 250 V**, which is toward the **upper end of the normal operating range**. *Simple Surge Arrestors will not work for this as they are connected as a parallel circuit, not a series circuit. Surge Arrestors will not cut the service to the equipment in the event of an over/under volt condition.* Field Voltage is supplied by the local utilities, but you may take the blame for something you didn't cause!



**Adding Voltage Monitoring Protection is one way to combat these power issues.** The ICM Controls Sentry 3N1 Voltage Monitor & Surge Protected Disconnect or the RectorSeal RSH-50 VRM combines surge protection, a voltage monitor, and a disconnect in one enclosure and protects against **power surges, rapid short cycling, and over/under voltage conditions.**

Over Voltage Conditions should be reported to the utility responsible for electrical service delivery.

Voltage tolerances are defined by:  
ANSI C84.1 – utility service voltage limits  
NEMA MG 1 – motor operating tolerance



Field Service Representative Contact

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Symbio® Service & Installation