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Service Bulletin

Subject: Boost Transformer Usage With 208-230 Volt Flake or Nugget Ice Machines

Voltage Variation

Electrical equipment is designed to operate at a specific standard supply voltage. The nominal supply voltage rating is +10%/-5% of the nameplate voltage rating. When the voltage falls below the rated supply voltage, motors will experience a decrease in motor torque, an increase in motor amperage and an increase in motor temperature. These increases can cause an intermittent shutdown of the equipment when the voltage drops below the nominal voltage rating.

Voltage may fall below the rated supply voltage due to the distance from a utility transformer, losses in line voltage due to circuit loads, or a difference between the available supply voltage and the voltage needed to run the equipment.

Boost Transformer

Flake and nugget ice machines are particularly susceptible to voltage variations, due to the forces generated by the auger removing ice from the evaporator. When the normal supply voltage is close to the minimum operating limits, a drop in supply voltage can result in activation of the rotation protection circuit which will cause the ice machine to shut down.

In these instances installing a transformer would be beneficial. The transformer will increase and maintain the supply voltage at a level well above the minimum rating whenever the supply voltage fluctuates.

A transformer is available from Manitowoc with specific instructions for installation on an ice machine. Part number 000010862 boost transformer is available through the parts department.