

CREATING MORE EFFICIENT HVAC AND HEAT PUMP SYSTEMS

An effective way to reduce capital costs and add longevity to A/C systems

Application

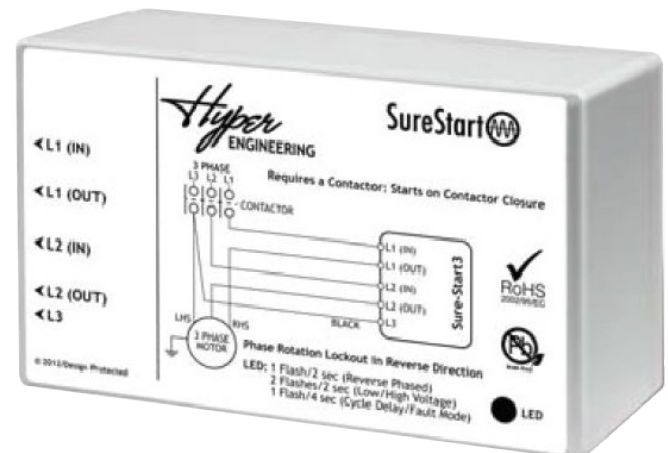
An A/C compressor is one of the most important components of a cooling system. It condenses refrigerant to a gas in order to move it to other parts of the system. Without this component, the A/C system can't work.

When an A/C system, and specifically its compressor, is started up, there is a momentary surge in current. This occurs with all electric motors due to the start-up resistance. The initial surge can be several times higher than the "running" amperage. When a main power grid is the power source, this is not an issue. But when the system is started by a backup generator, the generator's power capacity must be able to handle the highest surge. If it does not have the higher capacity, the inrush will "choke" the generator and not allow it to start the system. This could necessitate the purchase of a generator that is several times larger than the size/capacity of the normal "running" current. The owner may need to spend thousands of additional dollars simply to withstand the momentary inrush current that is not required to operate the system.



Solution

BriskHeat's Surestart compressor soft starters reduce the inrush current by 60% and automatically adjust the starting current to match the compressor size and available supply voltage. This eliminates the requirement to purchase expensive, oversize generators, and allows the owner to purchase units that are rated much closer to the lower, required operating amperage. For example, an average size 4 hp motor can create an inrush current as high as 100 amps, but with the addition of a soft starter, that number is reduced to 40 amps. So rather than purchasing a 24,000-watt generator, the owner can purchase a 9,600-watt unit.



Types of Users

HVAC Contractors and Repair Technicians

Industry

Construction HVAC
Consumer/Residential