

SecureStart™

Frequently Asked Questions

What are the benefits of SecureStart™?

- Start current reduction
- Light flicker reduction
- Improved starting performance
- Reduced stress and heating of compressor
- Allows systems to meet certain utility requirements
- Can reduce the HP required in mobile power generation

What are the appropriate application requirements for SecureStart?

- Single-phase compressors (60Hz, 208/230V)
- For motors with up to 32A max RLA (Rate Load Amps)
 - Use of SecureStart with compressors that have nameplate RLA values above 32 amps must be tested by the system designer to ensure that the application of the compressor does not exceed the current limitations of the SecureStart module.
- Where in-rush current is regulated or where current variations are common

How does SecureStart work?

- The SecureStart module is designed to achieve the proper phase angle control to provide optimal starting torque by reducing run winding current and adjusting the start winding current. The module reduces starting current 2 to 3X normal starting current.

Does SecureStart completely eliminate light flicker?

- No, however it dramatically limits the nuisance of light flicker up to 10 times thereby rendering the problem imperceptible.

Does SecureStart have a high voltage threshold?

- No. This module passes the voltage on to the compressor.

Will SecureStart detect if a compressor is running in reverse?

- Yes. SecureStart is continuously monitoring the phase angle and checking to ensure proper forward operation of the compressor.

In the event of a shutdown, what is the reset time for SecureStart?

- Three minutes.

How quickly does SecureStart optimize compressor startup?

- This module should limit in-rush current by approximately 50% with its first use. The SecureStart module could take up to a maximum of 10 starts to fully optimize.

How do I know if the SecureStart module is faulty?

- Simply bypass the SecureStart module; if the compressor starts successfully then the SecureStart module may need to be replaced.

Does this module save energy?

- No. The start time is very short - power saving would be less than 0.1%. The SecureStart module itself consumes less than one watt of power.

What is the LRA change?

- LRA amps will be reduced between 25% and 30%

How much does SecureStart reduce the in-rush current?

- Reduction of the starting current is 1/3 to 1/4 of the direct online current.

What is the minimal cycle/off time allowed?

- 20 seconds off time with an average duty cycle of 10 starts/hour is typical

What agency approvals have been achieved?

- UL and European approvals

What is the defined RLA?

- Rated for 32 amps RLA.
- Use of SecureStart with compressors that have nameplate RLA values above 32 amps must be tested by the system designer to ensure that the application of the compressor does not exceed the current limitations of the SecureStart module.

Does SecureStart have a product warranty?

- Yes. 12 months

What are the potential failure modes of SecureStart?

- Lightning strike that can lead to a blown surge protector
- Rapid contactor cycling could lead to a failure, but is protected in most cases.
- Potential run capacitor failure and run capacitor terminal failure

Is SecureStart compatible with Comfort Alert?

- Yes.

Can the SecureStart module be applied to smaller compressors (less than 3 H.P.)?

- Yes. Applying the module will not damage the compressor, however may initially overdrive the start winding until SecureStart optimizes the start sequence.

