

NO: MB2010CC-15
DATE: 6/25/2010
TO: Original Equipment Manufacturers
FROM: Emerson Climate Technologies, Inc.
SUBJECT: SecureStart™ for Single Phase Copeland® Compressors

Emerson Climate Technologies is pleased to announce the launch of SecureStart™ for single phase Copeland® compressors. This product is designed to reduce starting current by up to 75%, thereby improving compressor start characteristics, and reducing nuisances such as light flicker caused by current variations.

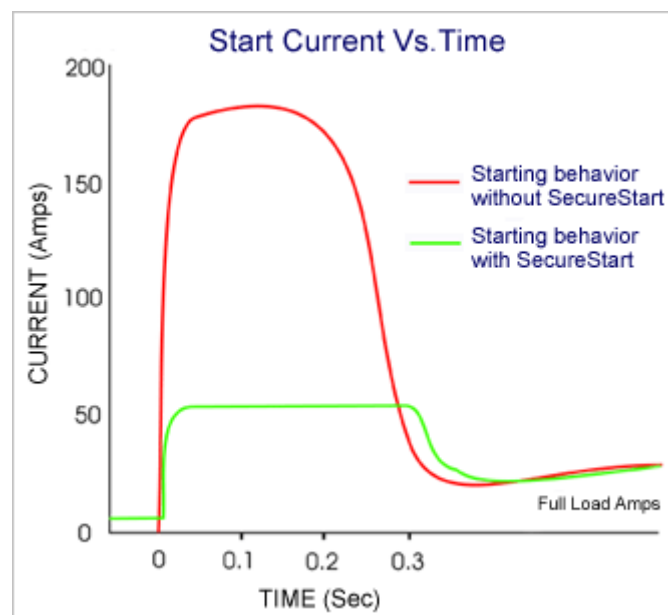
Part Number: 543-0120-00
Shipment Date: July 2010



Product Information:

Upon start-up, electric motors consume large amounts of current as they accelerate and build a magnetic field. Starting currents may reach five to eight times the levels of nominal operating currents. Figure 1 illustrates the reduction and stabilization of starting current achieved by SecureStart (543-0120-00).

Figure 1



The SecureStart module provides additional benefit by continuously monitoring supply voltage to prevent motor stalling under low voltage conditions. When conditions such as low supply voltage sags or locked rotor exist, this module will switch off the motor thereby protecting the compressor. A delay function provides additional protection in the event of an emergency shutdown.

The SecureStart (543-0120-00) module is designed to work with **single-phase** (60 Hz, 208/230v) Copeland Scroll® compressors in a variety of applications. It is best suited for applications where in-rush current is regulated or where voltage variations are common. This module can be used with Copeland Scroll single-stage, Copeland Scroll UltraTech dual capacity, or Copeland Scroll Digital™ continuously modulating compressors.

SecureStart (543-0120-00) is designed for motors with a maximum operating current of 32 amps. The product limits starting current to less than 45 amps and is self-adjusting to motor current requiring no manual calibration. 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.

SecureStart can be applied with the Copeland® compressors listed below in Table 1.

Table 1
Copeland® Compressors Compatible with SecureStart™

R410A	R22	R407C
ZP16 to ZP54K3E-PFV	ZR22 to ZR61K3-PFV	ZR16 to ZR54K5E-PFV
ZP16 to ZP54K5E-PFV	ZR16 to ZR54KA-PFV	ZR22 to ZR61K3E-PFV
ZPS20 to ZPS60K4E-PFV	ZR67 to ZR80KW-PFV	ZR48 to ZR68KCE-PFV

Figure 2 - Dimensions

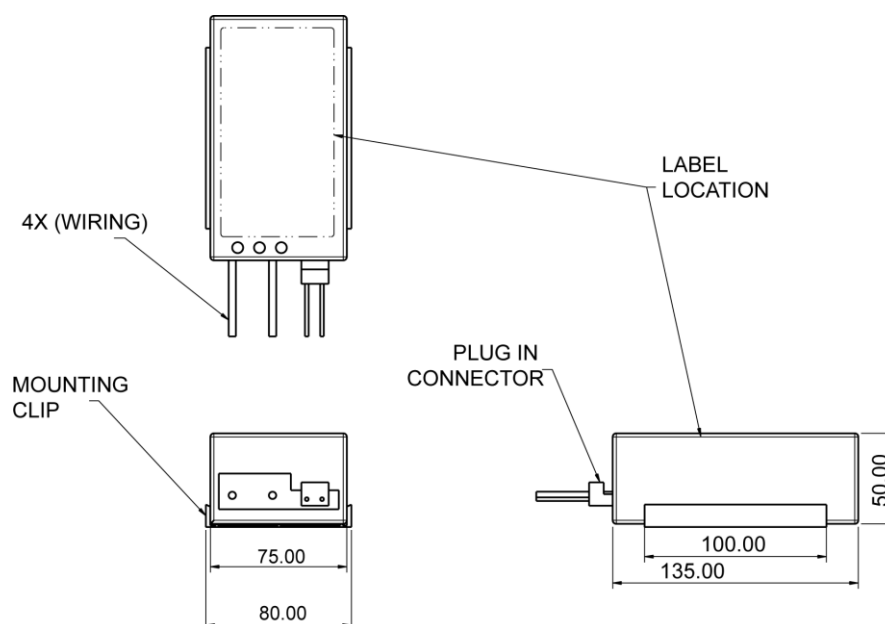
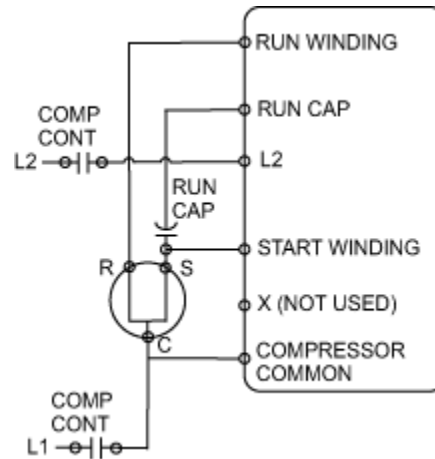


Figure 3 - Wiring Diagram



The SecureStart™ module is available for orders today. For more information, please contact your Emerson Climate Technologies sales representative or visit our Online Product Information at <http://www.emersonclimate.com>.