

# **S~D~S (Start-Drive-Stop) from Carotron, Inc.**

by John N. McMurray, Sales Engineer

At Carotron, we provide innovative products to help your customer's production processes run more smoothly than ever. Our products have three basic beneficial functions **START-DRIVE-STOP (S~D~S)**. Let's look at what's available in these three key areas of today's motor control process and how these can benefit your customer's company or plant.

## **>> START**

### **“SAF” Solid State Starters – Reducing high peak motor starting torque**

Replacing a conventional, across-the-line or reduced voltage, WYE-DELTA AC motor contactor with a state-of-the-art, digital SAF Solid State Starter can lower the initial peak starting current, bring down power company demand meter charges, and sharply reduce impact loading on belts and gearboxes. Optional Integrated Bypass Contactors further increase system efficiency during periods of continuous motor runtime.

## **>> DRIVE**

### **“Carotron” Elite PRO – Retrofit of aging DC Drives**

With the volatility of the DC drives market making the supply of controls and the availability of technical service uncertain, Carotron provides the products and assistance you need to respond quickly when your customer is down. Our [Elite PRO regen and non-regen digital DC Drives](#) offer state-of-the-art technology and incorporate, as standard, the features most often needed to allow legacy drive replacement, usually without the need for additional interface cards and accessories.

### **“US Drives” DX Series AC Inverters – Tough Drives**

Some AC drive applications are just plain tougher than others. Applications that include Impact Loads or Eccentric, Unstable Loads are some of the toughest. Impact Loads (like Rock Crushers, Metal Forming, Presses, Saw Mills, and Injection Molding Machines) can cause the AC motor to become a part-time generator, unless the drive is specifically designed to prevent this condition from occurring. Regenerative energy must be removed from the system or the drive will trip on “Overvoltage.” Most competitive AC drives are not designed to prevent this condition from occurring. The manufacturers of these products typically tell their customers they need to add Dynamic Braking Resistors whenever an AC drive is used on this type of load. Our Phoenix DX and EX Series of AC inverters from US Drives, with their unique DC Bus Follower circuit, is the perfect solution for these tough applications. No drive over-sizing is ever required, and US Drives guarantees trip-free operation, 100% of the time, at maximum load, and over the entire operating speed range. (Adapted from US Drives “Tough Drives” Flyer #TDRV001, 11-01-05)

## **>> STOP**

### **“SAF” Solid State Starters w/ DC Injection Braking – Fast speed reduction of rotating equipment**

A DC Injection Brake unit added to a [SAF Solid State Starter](#) quickly slows the AC motor driving a saw blade or other high-inertia load and minimizes the opportunity for injury. Codes in some areas require each machine over a certain horsepower to be equipped with such a device.



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Does your customer's company or plant have a need that falls into one of the S~D~S categories mentioned above? Call to speak with one of our customer representatives or speak directly with an engineer today. We'll be glad to help with your needs as a distributor, and help you meet your customers' needs promptly! ***Call Carotron today: 1-888-286-8614***