

Machine and system designs easy to expand via ABB's extension of the ACS350 general machinery drive to 15 horsepower

(15 HP, 480V drives provide very fast machine building and assembly times)

NEW BERLIN, WI, July 17, 2007 . . . ABB's ACS350 general machinery drives are designed and built to make it extremely easy for volume machine builders to increase average throughput time via an average two-second programming time per unit. ABB has just extended ratings of the drives to 15 HP, at 480 volts. The units are ideal for a wide range of machinery applications in the food processing, material handling, textiles, printing, rubber and plastics, and woodworking industries.

"This is more horsepower in the existing R3 frame drive that offers extremely fast replication of parameter sets across units, and very competitive pricing," said Michael Mikolajczak, product line manager for the ACS350 drive line. The R0-R3 frame drives also accommodate easy, repeatable installation, with unified height and depth across the horsepower range, he said. "All that varies as the horsepower increases is that the drives get slightly wider," he noted.

Innovative features packaged into ABB's extended ACS350 general machinery drives family all are designed to minimize installation and commissioning time and cost; these features include:

- **Patented FlashDrop technology;**
- **Eight (8) state Sequence Programming (PLC-like functions);**
- **Flexible User Interface;**
- **High-speed Communications; and**
- **Cabinet-compatible Hardware.**

Parameter Downloading and Uploading via new FlashDrop (model MFDT-01) – Without Powering Drives

ABB's patented FlashDrop technology makes parameter selection and setting as easy as operating a TV remote control. Important parameters can be downloaded and uploaded in less than three (3) seconds into a "non-powered" drive, using a hand-held FlashDrop MFDT-01 unit.

The unit can store up to 20 different machine parameter sets and, for extra convenience, each set can be named to clearly show the associated end-user or application. An especially useful feature is that parameter setting is done, "flashed in," without a power connection to the drive; in fact, it is not even necessary to fully unpack the drive. "This also makes it easy for distributors to pre-configure drives before delivery, and helps high-volume OEMs to streamline the commissioning process," Mikolajczak said.

FlashDrop allows the menu structure to be customized. Parameters can be set and hidden, changing the appearance of the menu for faster set up and configuration. It also enables users to copy parameters readily between drives: they simply are uploaded into the FlashDrop unit and then downloaded into a second drive. The FlashDrop unit can be connected to a PC for additional storage capacity, and parameter sets also can be created or edited using the DrivePM (Parameter Manager) PC interface. FlashDrop is quick and convenient to use, and no specialized drive knowledge is required.



Eight-state Sequence Programming (PLC-like Functions)

Sequence programming, a standard feature in ABB's general machinery drives, provides a straightforward way to create pre-set sequences of operations, without any drive options. These PLC-like programs are sufficient for many basic applications in which the drive controls the motor, using signals from sensors and limit switches. This helps to reduce external PLC capacity requirements, facilitating less complex motor control systems, and lower costs. Additional programming features include Speed Compensation Stop and Programmable Delayed Stop – ideal for material handling applications that require precise stopping independent of process-speed variations.

Flexible User Interface

The user interface of the new general machinery drives also are designed to give users greater flexibility -- and the possibility to cut costs. The control panel only is needed for commissioning or troubleshooting, and no panel is included with the drive as standard. Users who require a panel can select between two types: basic and assistant. Both are detachable, so an end-user could acquire a single panel to swap between, and use across, a number of drives.

Cabinet-compatible Hardware

With an EMC filter and built-in brake chopper, the new drives are very well equipped. At the same time, the drives are extremely compact: the 480 V drives over 1 HP are the smallest available in their category. And only the width of the drives increases with increasing power, which facilitates easy installation into cabinets, or stand-alone configurations. Cable tunnels can be arranged in a straight run, and all screw holes can be drilled in a line. The 15 HP 480V unit is built in the same standard R3 frame.

DIN-rail mounting of the 15 HP unit also is provided for, and the drives can be mounted side-by-side, without the need for air gaps. When cabinet depth is very limited, the drives even can be mounted with one side to the back of the cabinet. And with the 15 HP version weighing only 5.5 lbs, handling and installation of the units is easy. The drives' own housing provides IP20 protection.

High-speed Communications and Comprehensive Control Connections

The drives have comprehensive control connections: there are two bipolar analog and five digital inputs (of which one can be configured for pulse train), and one analog, one relay and one digital output. The drives feature a totally new generation of Fieldbus, with small, enclosed, plug-in adapters offering high-speed communications.

ABB's general machinery drives are available in single-phase (240 V) rated up to 3 HP; three-phase (240 V) up to 5 HP; and three-phase (480 V) up to 15 HP. **Later in 2007, these drives will also be extended to 25 HP (480V) and 10 HP (240V), in a new R4 frame size.**

ABB, Automation Products, Low Voltage Drives, is the world's largest manufacturer of electric motors and drives. In the USA, an integrated channel of sales representatives, distributors, and system integrators allow ABB, New Berlin, Wisconsin, to supply a complete line of energy-efficient electric drives, motors and engineered drive systems to a wide range of industrial and commercial customers. Products manufactured include AC and DC variable speed drives for electric motors from 1/8th through 135,000 HP, and application-specific drive system solutions to meet diverse customer needs (<http://www.abb.us/drives>).

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 109,000 people.



With innovative features designed to increase efficiency and cut installation and commissioning times, ABB's new general machinery drives are targeted at high-volume OEMs and System Integrators.



ABB ACS350 drive with FlashDrop unit in load mode, which requires only a few seconds to download/upload parameters to an un-powered drive.



ACS350 drives can be programmed in their packaging box – with FlashDrop.

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