

ABB standard drives

Enhanced ACS550

New features



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Enhanced standard drives

FlashDrop technology for fast configuration, new control panel assistants, and hardware upgrades are among a number of enhancements to ABB standard drives. The enhancements are based on feedback from customers and are designed to make the ACS550 drives even easier to commission and use.

FlashDrop

ABB's FlashDrop technology streamlines the process of configuring drives. Previously supplied for lower power drives, FlashDrop is now being made available for the standard drive range. A hand-held FlashDrop unit can be used to select and set parameters, copy configurations between drives, and hide parameters in order to simplify the end-user interface. It can store several parameter sets, and a full set can be downloaded into a drive in just two seconds.

Using FlashDrop, drives can be configured without the need for a power connection. This powerful technology accelerates drive configuration, especially where high volumes of drives are handled, but does not require any special knowledge on the part of the user.

DrivePM

DrivePM (Drive Parameter Manager) is a tool developed to create, edit and copy parameter sets for FlashDrop. For each parameter/group the user has a possibility to hide it, which means that the drive user does not see the parameter/group at all.

DrivePM requirements

- Windows 2000/XP
- Free serial port from a PC

FlashDrop tool includes

- FlashDrop
- DrivePM software on a CD-rom
- User's manual in pdf-format on the CD-rom
- Cable OPCA-02 for connection between the PC and FlashDrop
- Battery charger

User interface

An assistant control panel is supplied with the drives as standard to guide users through the programming process. Now parameter setting with the panel is even more straightforward, as a new assistant menu structure presents the various options in a clearer format. Five new assistants further improve the control panel functionality.

New assistants

- The inbuilt PID controller and real-time clock functions both have their own assistants.
- The maintenance calculator is provided with an assistant to compute the interval to the next service based on thermal load, motor revolutions, and elapsed time. An alarm can be activated when maintenance is due.
- The new serial communications assistant provides a convenient way to set up fieldbus connectivity.
- The drive optimizer assistant will be particularly useful for new users, offering an intuitive method to set the optimal parameters without having to study manuals or reference materials. Users can choose to optimize the drive for low noise, combined drive and motor efficiency or motor control accuracy.
- The start-up assistant has a new, automatic parameter backup function. After start-up the assistant offers the option to backup the parameters to the control panel for extra security.



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Options

Encoder module

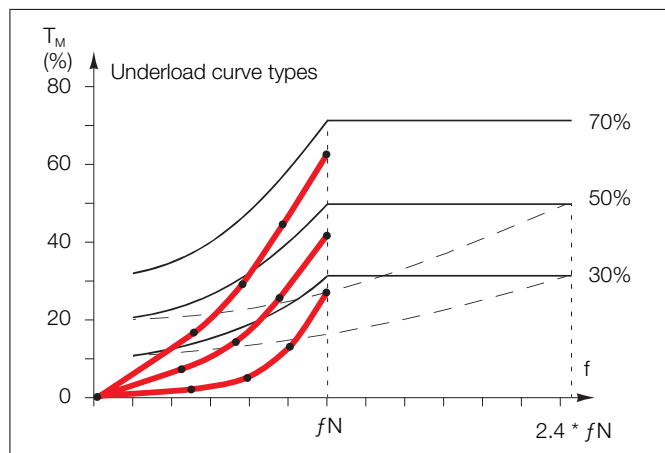
As a new option, the enhanced standard drives can accommodate an encoder module. Using an encoder for speed feedback is a straightforward way to increase motor control accuracy in many applications.

Software

The drive software itself has been fine-tuned to further boost usability.

Jog function and user defined under load curve

The new jog function automatically toggles between two different speeds, while the programmable underload curve feature allows underload conditions to be detected. The user enters expected torque values for five speeds, enabling the drive to determine an acceptable torque curve. Any significant deviations from the curve can then be detected.



The drive can detect any significant deviations from the expected torque curve.

Hardware

Hardware enhancements include smaller frame sizes for the 22 kW, 45 kW and 55 kW drives. The 55 kW drive, for example, is being reduced from frame size R6 to R5 for an approximate 50% decrease in both weight and volume.

Standards and requirements

ABB ensures that its products are updated in line with the latest official standards and requirements. The enhanced standard drives comply with the EU's RoHS 2002/95/CE Directive restricting the use of certain hazardous substances. They have also been issued with a declaration of conformity which confirms that they have been tested in combination with certain ABB motors for use in DIP (Dust Ignition Protection) environments.



The 55 kW drive is being reduced from frame size R6 to R5 for an approximate 50% decrease in both weight and volume.