

# SD 3000 PLUS DC Power Bridge Retrofit DC Drive Control



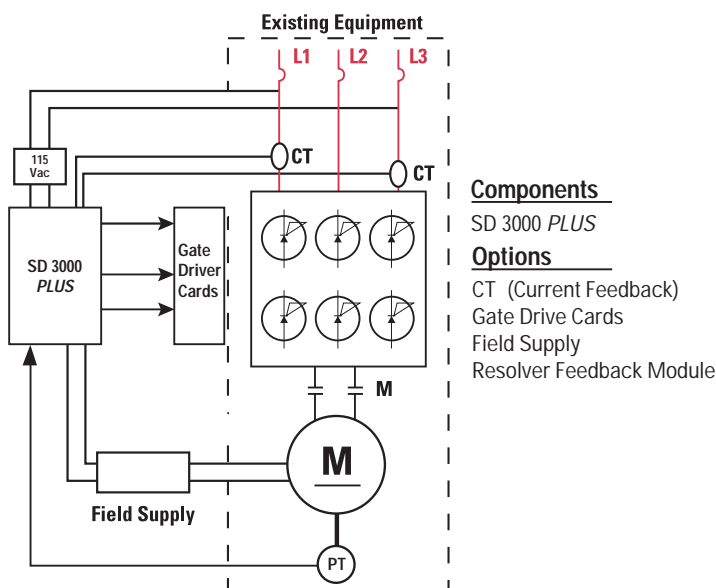
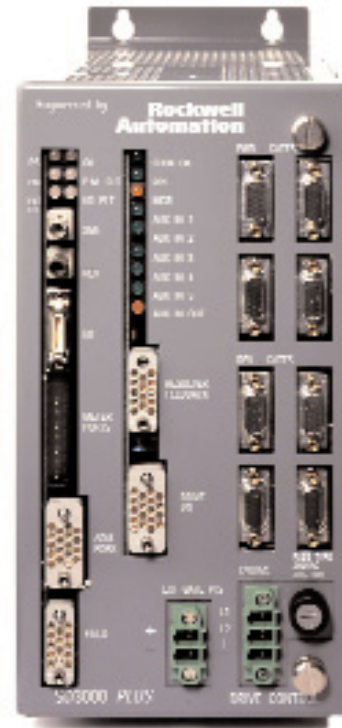
Solution Profile

The DC Power Bridge is among the most expensive components in a DC variable speed drive. In many cases the technology of the electronic DC control is the limiting factor for improving drive or line performance.

The SD 3000 PLUS Retrofit Controller package can offer an easy way to upgrade existing DC Power Bridges to a full digital, high performance control. The retrofit package can be adapted to almost any DC power bridge regardless of original manufacturer. The DPS controller can be configured to S6, S6R, S12 or S12R power structure configurations. Motor-Generator sets can also be retrofit candidates for the SD 3000 PLUS package.

The SD 3000 PLUS Retrofit Controller package is designed to replace the electronic controls of an existing DC Drive while retaining the expensive SCR Bridge structure. Many times all of the power handling components can be retained. Incoming line protection fuses and circuit breakers, output contactors, line supply transformers are all candidates to be retained. Replacing the digital control can reduce maintenance costs, downtime and help migrate the installed equipment to the latest Rockwell Automation controllers and equipment.

The general arrangement of the retrofit package:



## SD 3000 PLUS Retrofit Controller Features

- Full digital drive control
- Flexible configurations S6, S6R, S12, S12R
- Programming integration with ControlLogix 1756 DMD30
- MG Set compatible
- Supports full 4 Quadrant Field Supplies
- Power module interface
- Resolver feedback interface

## SD 3000 PLUS Digital Drive Control Available Options

- Ports available for Local Analog Metering
- Resolver module

## SD 3000 PLUS Digital Drive Control Performance

- Digital control of current, velocity and configuration
- Feedback
  - Resolver
- Programmable current limit
- Field current loss protection
- Speed regulation: 0.025% of 10:1 speed range
- Dynamic speed control: 60 radians maximum, 20 rad/sec typical
- Automatic tuning of current loop
- Diagnostics
  - Warnings of pending problems
  - Immediate shut down of critical conditions
  - Extensive Power up diagnostics
  - Programmable diagnostics for faults and alarms



## Engineered Solutions

The best way to take advantage of the powerful SD 3000 PLUS control features and the adaptability of the retrofit package is to engage the Local Drive Solution team to offer a fully engineered solution. The solution will include the best choices of options, field review of the installation, complete drawing revisions for the specific upgrade drive section and pro-active project management to fit the upgrade into the customers schedule. Many times these upgrades can be completed section by section to avoid costly down time and lost production.

## Contact Information

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