# Bardac dc drive technology

MODEL PLXD
SEPARATE SCR STACK CONTROLLER

# A great retrofit solution for:

- LARGE 4-Q REGEN DC DRIVES
- HIGH CURRENT ELECTROLYSIS SYSTEMS
- WOUND ROTOR MOTOR STACK CONTROL

Based on the successful PL/X Series, totally digital DC drives, the PLXD controller is engineered to provide a reliable solution for refurbishing and upgrading large SCR stack controls. The unit comes complete with a built-in programmable field controller, a separate, isolated SCR gate drive interface and low hysteresis current transformers. Replacement of old main contactors is strongly recommended and these can also be supplied with the upgrade kit.



# **KEY FEATURES**

- · Built-in field controller up to 32 amps with optional 50 amps
- savvy drive configuration & systems integration tools
- · Total digital control
- Peer-to-peer communications
- 40 character backlit display
- · Friendly, easy menu structure
- · Function blocks for PID, winders, orientation, etc.
- Modern, compact packaging
- Extensive, flexible i/o
- Built in programmable control functions
- RS232 serial port
- Easy configuration saving & cloning
- Tach, encoder & arm volts feedback standard
- Easy, reliable autotune
- Easy, detailed integration manual
- UL, C-UL, CE



#### **OPTIONAL FEATURES**

- · Peer-to-peer Ethernet communications
- drive.web programmable control
- ModbusTCP over Ethernet
- ModbusRTU RS485 serial port, Devicenet, Profibus

# **KEY PLXD FEATURES**

#### **Analog Inputs & outputs**

8 analog in (up to +/-30V), 4 analog out (12 bits) Short circuit and overvolts protected up to 50V

#### **Digital Inputs & Outputs**

17 digital inputs, 7 digital outputs

Short circuit and overvolts protected up to 50V

#### Standard Speed Feedback Selections

Analog Tach, encoder, armature voltage with armature IR compensation, encoder + armature voltage or analog tach.

# **Field Configurations**

Constant current, constant voltage, automatic field weakening, delayed field quench, standby field setting, field economy.

#### Ratings

150% rating for 25 secs at 50°C (except as noted) Re-ratings for higher overloads & longer durations

## **Diagnostic Monitoring**

Scope terminal monitors selected parameters
All analog & digital i/o volts & states
Tach volts
Motor arm volts & amps and field current
Output power
AC supply volts

## **Basic User Configurable Function Blocks**

PID, Profiler, winder diameter calculator, taper tension, torque/inertia/friction compensator, preset speeds, summers, MOP, timer, spindle orientation, jog/crawl, filters, dual motor swap, latch, sample & hold, linear & S-ramps, slack take up, batch counter, draw control.

#### **Protection**

Inverse time overcurrent, field fail & overcurrent, motor over temp, SCR over temp, phase loss, arm over volts, over speed, speed f/b mismatch, stall, standstill logic, SCR trigger fail, digital output short circuit.

## **RS232 Serial Communications Port**

Parameter upload/download to save & print Drive-to-drive parameter link & set up cloning

#### **OPTIONS**

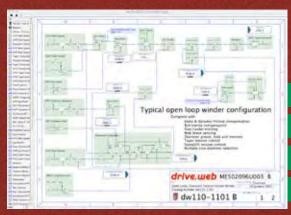
drive.web peer-to-peer distributed control over Ethernet drive.web Signal Flow Diagram systems integrator drive.web IP addressing & Internet access ModbusTCP Ethernet ModbusRTU RS485 Allen Bradley PCCC Ethernet Profibus DP Devicenet

# SMARTER DRIVES WITH drive.web

By adding a **drive.usb** option to the PL/X series DC drives you gain both Ethernet communications and powerful programmable systems integration capability without the need for an external PLC or supervisory computer. You get ...

- · Peer-to-peer networking of drives over Ethernet
- · Programmable control with graphical function blocks
- · Internet access and IP addressing
- savvy intuitive, graphical, system design software
- · Powerful system navigation tools
- Simple drag & drop parameter connections
- · Application packs for winders, phase lock, line master, registration and more.

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Quickly build clear graphical signal flow diagrams for drives and complete systems. Store this documentation in the drives for reliable access in the field.

CONCEIVE

**DESIGN** 

**OPERATE** 

**MANAGE** 





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