

## NEW smarty<sup>7</sup> XIO options!

### HVIO



More power per square inch!

The smarty<sup>7</sup> HVIO  
Standard **dw250** features plus:  
• [10] 120/240 VAC Digital Inputs  
• [6] 120/240 VAC Digital Outputs

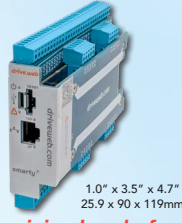
### XDIO



Digital Inputs for more control!

The smarty<sup>7</sup> XDIO  
Standard **dw250** features plus:  
• [16] 5/24 VDC Digital Inputs  
• [16] 24 VDC Digital Outputs

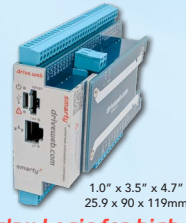
### XAIO



Precision Inputs for sensors!

The smarty<sup>7</sup> XAIO  
Standard **dw250** features plus:  
• [4] Independently-isolated, multipurpose, millivolt-level inputs

### RLIO



Relay Logic for high-power switching

The smarty<sup>7</sup> RLIO  
Standard **dw250** features plus:  
• [4] Relay Outputs  
2 Form A, 2 Form C

## The operation behind automation excellence Innovation

From cutting-edge products to efficient procedures, we always look for new ideas and a better way.

## Perseverance

We never give up the effort to be the very best in the automation business.

## Vision

Planning well into the future and managing long term goals to ensure continuity of purpose that we can all buy into.

## Investment

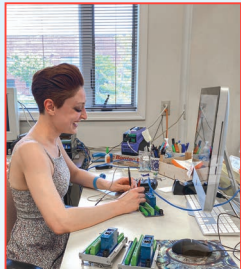
Pursuing the vision takes investment in development, inventory, tools, and above all, the team.

## Know-how

Constant attention to training and skill building keeps everyone on top.



Leadership smarts



Quality focus



Sweating the Details



Stock up to 2000HP



Consistent Innovation



Dedicated support

# Bardac Drives

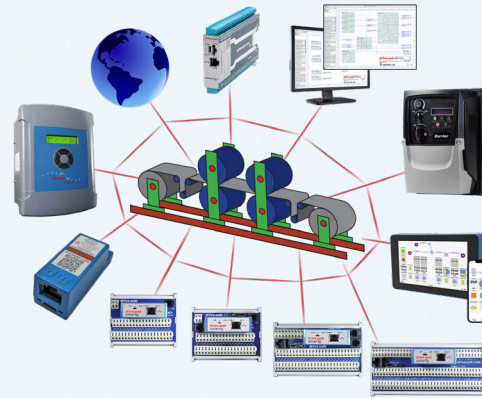
40 Log Canoe Circle, Stevensville, MD 21666 USA (410) 604-3400 or US 1-888-667-7333 bardac.com driveweb.com

24/7, online ordering at AutomationThings.com

Bardac  
drives

SMART AUTOMATION

with unbeatable **drive.web** distributed control



Configure, connect, and control everything in one environment.

Utilizing peer-to-peer Ethernet technology, **drive.web** is completely internet accessible.

Distributed control ensures cost effective systems of any size or complexity.

## savvy for all Systems!

The **savvyPanel** operator interface is available on our own **dw260** touch screens plus:

- iOS and Android
- PC, Mac, and Linux



## More power per square inch!

The award winning **dw250 smarty<sup>7</sup>**:

- 0.82 x 3.62 x 4.73 in (WxHxD) DIN rail mounting
- 16 analog and 16 digital I/O plus two selectable current inputs: 4-20mA, 0-20mA, 20-0mA
- Six frequency/event/digital inputs, 100kHz max.
- Seven frequency/stepper/digital outputs. 500kHz max.
- Two differential, incremental, quadrature encoder inputs with markers, ABZ.
- ModbusRTU Client (server optional)
- 100baseTX Ethernet
- Modbus TCP/IP Client & Server
- EIP/PCCC
- Dedicated CANopen device options available
- High-Voltage, Extended Digital & Precision Analog Options Available
- USB-C



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# AC DRIVES



## P2 Series \* Closed Loop Vector

High performance systems drive for:  
Process automation, Printing,  
Machine tools, and Converting

Up to 400HP  
230, 460, & 600 volt builds  
IP20 up to 400HP (50°C)  
NEMA 4X (IP66) up to 40HP (40°C)  
NEMA 12 (IP55) 15 - 400HP (40°C)

AC Induction & PM motor modes  
Brake transistor, DC Bus sharing,  
Safe Torque Off function, and  
Modbus or CANopen port

**Options:** *drive.web* smarts,  
extended I/O, Ethernet, Internet,  
and USB.



## V3 ECO Series \* Energy Efficient Variable Torque Drives

Fans & pumps, HVAC,  
Water treatment, Building systems,  
Climate control, Flow control, and  
Swimming pools  
IP20 up to 400 HP (50°C)  
NEMA 4X (IP66) up to 40HP (40°C)  
NEMA 12 (IP55) 15 - 400HP (40°C)  
Pump Features:  
Pump blockage (detect/clear/stir)  
Preheat/anticondensation mode  
Pump cascade control  
Dry run protection  
Up to 400HP  
230, 460, & 600 volt builds  
>98% efficient  
Low input harmonics  
Low audible motor noise  
Smart energy optimization  
Intelligent maintenance intervals  
Power loss ride through  
ModbusRTU, BACnet  
Fan Features  
Drive fault auto bypass  
Sleep mode with auto-boost  
Fire override mode

**Options:** *drive.web* smart control, Internet access,  
*savvyPanel touch* HMI, EIP, Modbus TCP, peer-to-peer Ethernet,  
USB programming, IIoT ready, power disconnect

**Motor options:**  
Standard Induction, PM AC, Brushless DC, or Synchronous Reluctance



## E3 Series \* General Purpose VFD

Precision Sensorless Vector for:  
General purpose machine control,  
Pumps, blowers, and Conveyors

IP20 up to 50HP  
NEMA 4X (IP66) up to 30HP  
110, 230, and 460 volts  
1Ø & 3Ø builds

Motors: Induction, PM, BLDC, SynR  
Industrial, Pump & Fan modes,  
Quiet run, power loss ride through,  
Spinstart, skip, Modbus, and braking



## NEMA 4X (IP66) \* For Harsh Environments

E3, P2, and V3 Drives  
Food processing, Mining,  
Water treatment, and Agricultural

Up to 30HP | 1Ø & 3Ø builds  
110, 230, and 460 volts  
Washdown, dust tight, Chemical  
resistant, Spinstart, skip, Modbus &  
braking, Quiet run, and power loss  
ride through

NEMA 4X drives are available in  
Outdoor Ratings!



## E3 Series 1Ø VFD \*

Variable torque drive, Pumps,  
Fans & blowers, Fume extractors,  
and Air flow control

Up to 0.75HP (110V)  
Up to 1.5HP (230V)  
NEMA 1 (IP20) & NEMA 4X (IP66)  
Motors: Shaded Pole (SP) &  
Perm Split Cap (PSC)

Pump & Fan control modes,  
Innovative smart boost start

\* Approvals: UL, C-UL, CE, C-Tick

# DC DRIVES

## PL Series DC drives with 2000+ HP capability



### Standard Features

- Total digital control
- Basic peer-to-peer link
- 40 character backlit display
- Friendly, easy menu structure
- Modern, compact packaging
- Extensive, flexible, plug-in I/O
- RS232 serial port
- Full featured systems drives
- Easy configuration saving & cloning
- Built-in automatic field controller
- Built in programmable control functions for PID, winders, orientation, etc.
- Tach, encoder & arm volts feedback
- Easy reliable autotune

### Options

- *powerDRIVES* with built in  
contactor, high speed fuses, etc.
- *drive.web* smarts
- Internet, Ethernet, Modbus, USB
- *savvyPanel touch* screens



## Single Phase DC Drives up to 10HP

Regenerative & Non-Regenerative  
110/230, 230/400, 230/460 volt units

Chassis & DIN rail mountable drives in compact  
packages for both stand-alone and systems-  
based applications

Features Include:

- Armature volts or tach feedback
- Accurate speed & torque control modes

**Options:** *drive.web* smarts, extended I/O,  
Ethernet, Internet, *savvyPanel touch* HMI



## Low Voltage DC Servos up to 12 amps

For small, high performance position and speed  
control applications such as robotics, mechanical  
handling, automated assembly, packaging  
processes, machine tool axis, etc.

Easily interfaced to the *drive.web smarty* to  
provide full featured multi-axis control functions  
such as trapezoidal & cam motion with state  
machine logic.