**Drive Solutions**

**HITACHI**

**NE-S1 Series AC Variable Speed Drives**
- Among the smallest form-factors in their category
- Economical and simple to use speed control inverter solution; range of 1/2 to 5hp
- Designed with both OEMs and System Integrators needs in mind with its ultra-compact design, and pre-configured for out of the box integration in most applications

**WJ200 Series AC Variable Speed Drives**
- Designed for excellent performance and user friendliness
- From 100-200VAC single phase, and 200/400VAC three phase input, to 200/400VAC three phase output; range 1/8 to 20hp
- The WJ200 Series comes with an integrated auto-tuning function for easy sensor-less vector control that realizes high starting torque of 200% or greater, suitable for a variety of applications

**SJ Series, Type P1 – High Performance Inverter**
- Easy operation and setup via LCD color keypad
- Powerful high-torque performance – 200% @ Hz
- Internal Dynamic Brake transistor up to 22 kW (30 hp)
- EzSQ “Soft PLC-like” Programming Software
- Position control function offers servo-like performance
- Pump specific PID with sleep mode and line fill features
- NEMA conduit boxes available (in early 2018)
- EMI filter integrated, Category C3

**SJ700 High HP Series AC Variable Speed Drives**
- From 380-480VAC; range 250-600hp/370/800 Amp
- Includes separate DC choke
- EzSQ (Easy Sequence) built-in programming function, which provides the functionality of a PLC built into the inverter
- High Starting Torque 200% at 0.3Hz
  (75 to 132kW : 180% at 0.3Hz, 185kW and over : 150%, at 0.3Hz)
- Full Vector Control with Feedback option
  (Torque Control, Position Control)
- Easily replaceable cooling fans and bus capacitors
  speed field maintenance

**Vortex Blowers (Oil Less)**
- E-Series – Smaller more efficient blowers that generate air by non-interference, single path air compression, enabling greater efficiency for larger air volume applications.
- G-Series – Three-dimension impeller that generates high-speed air. Suitable for vacuum applications and pressure applications.

**Metallic Electrical Enclosures**

**Schaefer’s Electrical Enclosures**

**Climate Air Drive Enclosures**
- NEMA 3R sized for 5 hp – 250 hp
- Vented cantilevered roof with optional snow filter
- Options:
  - HMI hinged window kit
  - Flange mount disconnect cut out
  - Multiple fan & filter choices

**Cosmetec Industrial Cooling**

**Air Conditioning**
- Capacity Range: 380 W - 5,950 W
- Digital Controller
  - Smart Energy Management
  - Sequencing Capabilities
  - MODBUS Communication
- Outdoor Low Ambient Package Standard (-40°F to 131°F)
- Alarm Outputs
- Remote Door Switch Capable
- UL Listed Type 12 / 4 / 4X (SA12046)

**Air to Air - Heat Exchanger**
- Indoor / Outdoor Units
- Large Capacity Ranges
  - Indoor 16 W/C - 80 W/C
  - Outdoor 30 W/C - 160 W/C
- Outdoor units rated for Low Ambient use (-40°F)
- UL Listed Type 12 or Type 4/4x (E 194435)

**Air to Water - Heat Exchanger**
- Large capacity range
  - 810 W - 12.5 kW @ DT25
- Patented construction to prevent water penetration
- Solenoid valve
- Mechanical thermostat
- UL Listed Type 12 (E194435)

**Filter Fans**
- Wide range of sizes
- Wide range of voltage options
- Industry standard cutouts with snap in mounting
- IP54 standard / IP55 outdoor units rated for Low Ambient use (40°F)
- UL Listed Type 12 or Type 4/4x (E194435)

**Block**

**Harmonic Filters**
- With Minimum capacitive idle reactive power
- IEEE 519 THD ≤ 5% compliant
- Up to 480 V
- Power range of 7.5 to 384 hp

**Line Reactors**
- Peak and Irush current limitation
- Spike protection
- High reliability
- 240 V, 480 V, 600 V
- Power range of 7.5 to 384 hp

**DC Reactor**
- Reduces unwanted harmonic distortion
- Improvement of the efficiency of a converter
- Rated voltage – 600 Vdc
- Rated current – 8 – 100 A
- Inductance - 0.67 – 9.4 mH

**Undervoltage**
- SAG & Outage Protection

**Overvoltage**
- Line & Capacitive Regeneration

**Common Bus**
- 1, 3 Phase & 24 VDC

**Power Quality**
- 12 & 18 Pulse Solutions
- Filtering

**Bonitron**

**“If you have VFDs, you’ll need some of these!”**

**Bonitron**

**Maintenance**
- Portable Capacitors

**www.bonitron.com**
Control Panel Toolbox

- Thermal Transfer Printers
  - Cables
  - Terminal Blocks
  - Push Buttons
  - Electrical Cabinet Components
  www.cembre.com

- Electrical Connectors & Tools
- Exceptional Metal-Working Tools
  - Punching
  - Drilling
  - Cutting
  - Deburring
  - Lifting
  - Mounting Tables
  www.alfratools.com

Control Panel Solutions

- Standard and Custom Enclosures
  - Free Standing, Floor & Wall Mount
  - Operator Interface
  - Rain Tight
  - Disconnect/Modular
  - Climate Control
  - Accessories
  www.electrical-enclosures.com

- Metallic Electrical Enclosures
  - Carbon • Stainless • Aluminum • Galvanized

- Custom Capabilities
  - Height, Width & Depth
  - Special size or material type
  - Powder paint colors (any RAL)
  - Factory cutouts & forming
  - Installed accessories (drip shields, rain hoods, etc.)

- Air Conditioning
  - Capacity Range: 380 W - 5,950 W
  - Outdoor Low Ambient Package Standa (-40°F to 131°F)
  - UL Listed Type 12 / 4 / 4X (SA12046)

- Air to Air - Heat Exchanger
  - Indoor / Outdoor Units
  - Large Capacity Ranges
    - Indoor 16 W/C - 80 W/C
    - Outdoor 30 W/C - 160 W/C
  - UL Listed Type 12 or Type 4/4x (E 194)

- Air to Water - Heat Exchanger
  - Large capacity range
    - 810 W - 12.5 kW @ DT25
  - UL Listed Type 12 (E194435)

- Filter Fans
  - Wide range of sizes & voltage options
  - Industry standard cutouts with snap mounting
  - IP64 standard / IP55 available with rain hood
  - UL Recognized (E194444) / CSA Listed
  www.stulz-cosmotec.com

- Control Transformer
  - Fused Version Available
  - Versions with DIN Rail for additional components available
  - 100% Finger-Safe
  - Jumpers included for primary voltage selection
    - Up to 2500 VA

  **Insulation Class**: B (266°F)
  **Input Voltage**: 240x480 VAC or 600 VAC
  **Power**: 50 – 2500 VA

  **Ambient Temperature**: 104°F
  **Approvals**: UL 5085-1/2, CSA 22.2
  **Frequency**: 50 – 60 HZ

- Switched Mode Power Supplies
  - 1, 2, 3 Phase
  - 5 Vdc, 12 Vdc, 18 Vdc, 24 Vdc, 30 Vdc, 48 Vdc, 60 Vdc

www.blockusa.com