Item | Specifications
--- | ---
Product Range | COMMON SPECIFICATIONS
- | 200 - 2,750 HP (UL/CSA Listed)
- | 300 - 6,000 HP (UL/CSA Listed)
- | Parallel Unit up to 10,000 HP
- | * 4.16 kV output drives available with 13 kV supply.
- | Additional input voltages (up to 13 kV) are available upon request.

**Control Characteristics**
- **Control Methods**
  - V/f Control (V/f)
  - Open Loop Vector Control (OLV)
  - Closed Loop Vector Control (CLV)

- **Frequency Control Range**
  - 0.01 to 120 Hz

- **Frequency Accuracy**
  - 
    - Digital input: within ±0.01% of the max output frequency (-10°C to +40°C)
    - Analog input: within ±0.5% of the max output frequency (-10°C ± 40°C)

- **Frequency Setting Resolution**
  - Digital inputs: 0.01 Hz
  - Analog inputs: 1/2048 of the maximum output frequency setting (11 bit plus sign)

- **Output Frequency Resolution**
  - 0.001 Hz

- **Frequency Setting Methods**
  - 0 to +10 V, 4 to 20 mA (standard), Network

- **Starting Torque**
  - V/f: 130% at 3 Hz, OLV: 130% at 0.3 Hz, CLV: 130% at 0 r/min

- **Speed Control Range**
  - V/f: 1:20, OLV: 1:100, CLV: 1:1000

- **Speed Control Accuracy**
  - V/f: ± 2 to 3%, OLV: ± 0.5%, (25 °C ± 10 °C), CLV: ± 0.02% (25 °C ±10 °C)

- **Speed Response**
  - OLV: 10 Hz, CLV: 50 Hz

- **Accel/Decel Time**
  - 0.0 to 6000.0 s (4 selectable combinations of independent acceleration and deceleration settings)

**Protection**
- **Motor Protection**
  - Electronic thermal overload relay

- **Momentary Overcurrent Protection**
  - Drive stops when output current exceeds 132%

- **Overload Protection**
  - Drive stops after 60 s at 110% of rated output current

- **Overvoltage Protection**
  - Power Cell VPN > 1035 VDC

- **Undervoltage Protection**
  - Power Cell VPN < 300 VDC

- **Momentary Power Loss Ride-Thru**
  - Resumes operation if power loss is less than 2 s (standard)
  - (UPS Required)

- **Overheat Protection**
  - Power Cell = Thermistor, Transformer = PT100 and Thermal Switch

- **Ground Fault Protection**
  - Electronic circuit protection

**Operating Environment**
- **Ambient Temperature**
  - -5 to +40°C (up to +50°C with output current derate)

- **Humidity**
  - 95% RH or less (no condensation)

- **Storage Temperature**
  - -20 to +60 °C (short-term temperature during transportation)

- **Altitude**
  - Up to 2000 m without derating, up to 4000 m with output current and voltage derating

**Communications Options**
- **Communications Protocols**
  - Optional: EtherNet/IP, DeviceNet, Modbus TCP/IP, Modbus RTU, PROFIBUS DP, and PROFINET

**Output**
- **Output Voltage**
  - 4.16

**Product Range**
- 200 - 2,750 HP (UL/CSA Listed)
- 300 - 6,000 HP (UL/CSA Listed)
- Parallel Unit up to 10,000 HP

* 4.16 kV output drives available with 13 k V supply.

Additional input voltages (up to 13 kV) are available upon request.
Yaskawa Quality: Second to None

We're the only industrial drives and motion control manufacturer to win the Deming prize – the most prestigious quality award in manufacturing. Yaskawa constantly tracks and measures product failures in time (FIT). The actual FIT data demonstrates a high quality and reliability rate that is the envy of our Industry.

- Internal Assembly Failure Rate 0.01%
- Field Assembly Failure Rate 0.0062%

MV1000
MEDIUM VOLTAGE
AC DRIVE
Simple Robust Compact Reliable Safe Feature Packed

Input Fused Disconnect with Contactor
Cooling Fans
Control Section
Multi-Pulse Transformer
Power Cells
MV1000 Features and Advantages

Yaskawa Smart Harmonic Technology, Exceeds IEEE-519 Requirements

DriveWizard Medium Voltage
- Manage parameters and drive configuration online or offline
- Connect to drive via serial or network
- Customizable User Parameter group
- Monitor and trend parameters in real time, or save to analyze offline
- Consistent interface with Yaskawa Low Voltage Drives
- View fault history log (last 50 faults)

Motor Friendly 17-Level Phase-to-Phase Waveform

Easy Maintenance with Modular Construction
Fiber-Optic Based Controls for High Reliability (MTBF > 200,000 Hrs)

User Friendly Digital Operator
- Plain English
- Advanced monitoring
- Real Time Clock for Event Logging
- 5-line LCD display
- Keypad interface used in 1000 series LVDs
- Multiple languages

Advanced Features
- Power Dip Ride Through
- Kinetic Energy Braking (KEB) Function
- Closed Transition Sync Transfer and Capture
- Speed Search
- Automatic Restart
- Auto Tuning
- Open Loop Vector
- V/Hz Control

Synchronous Transfer from AC Source to Drive
Drive Output Voltage synchronized with Utility Supply Voltage
Smooth transfer from Drive Output Current to Utility Supply Current
Smooth sinusoidal Motor Current

Fiber-Optic Based Controls for High Reliability (MTBF > 200,000 Hrs)
Yaskawa is the leading global manufacturer of low and medium voltage variable frequency drives, servo systems, machine controllers and industrial robots. Our standard products, as well as tailor-made solutions, are well known and have a high reputation for outstanding quality and reliability.