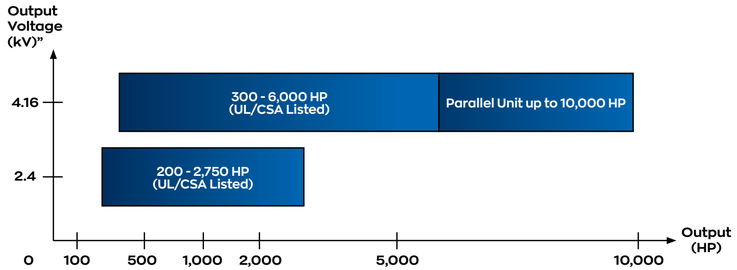
## Product Range




*** 4.16 kV output drives available with 13 kV supply.**
**Additional input voltages (up to 13 kV) are available upon request.**

## COMMON SPECIFICATIONS

| | Item | Specifications |
|---|---|---|
| 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 (Temperature Fluctuation) | Digital input: within ±0.01% of the max output frequency (-10°C to +40°C)<br>Analog input: within ±0.5% of the max output frequency (-10°C ± 40°C) |
| | Frequency Setting Resolution | Digital inputs: 0.01 Hz<br>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 Function | 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 |
| Comm. Options | Communications Protocols (Optional) | EtherNet/IP, DeviceNet, Modbus TCP/IP, Modbus RTU, PROFIBUS DP, and PROFINET |

YASKAWA

# MV1000

## MEDIUM VOLTAGE AC DRIVE

YASKAWA.COM

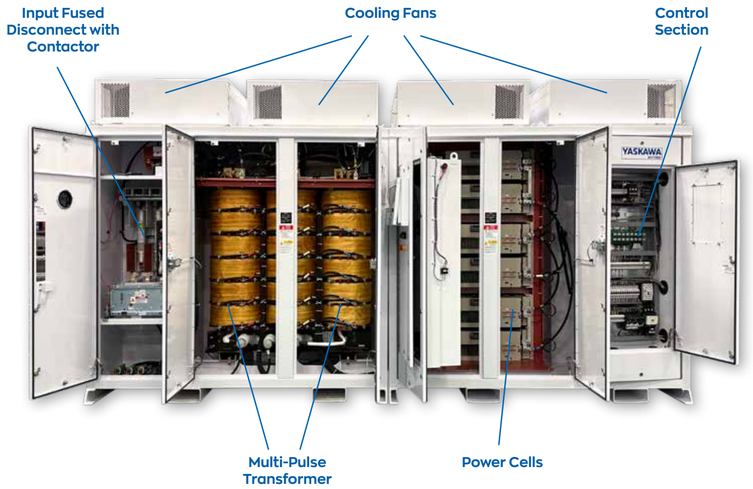

Yaskawa is the leading global manufacturer of low and medium voltage variable frequency drives, servo systems, machine controllers and industrial robots. Our standard products, as well as tailor-made solutions, are well known and have a high reputation for outstanding quality and reliability.

YASKAWA

**Yaskawa America, Inc.** | Drives & Motion Division
1-800-YASKAWA | Email: info@yaskawa.com | yaskawa.com
Document No. BL.MV1000.02 | 08/25/2023 

# MV1000 MEDIUM VOLTAGE AC DRIVE

Simple Robust Compact Reliable Safe Feature Packed



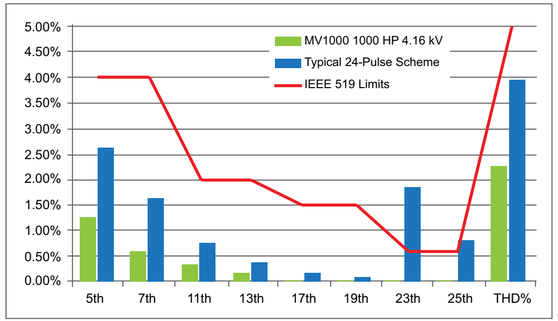

## Yaskawa Quality: Second to None

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.

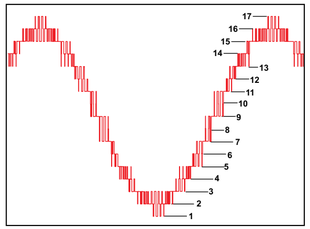
- **Internal Assembly Failure Rate 0.01%**
- **Field Assembly Failure Rate 0.0062%**

# MV1000 Features and Advantages

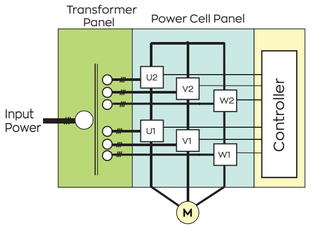
## Yaskawa Smart Harmonic Technology, Exceeds IEEE-519 Requirements




## Motor Friendly 17-Level Phase-to-Phase Waveform



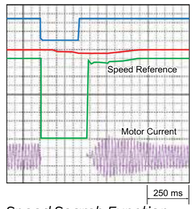

## Easy Maintenance with Modular Construction



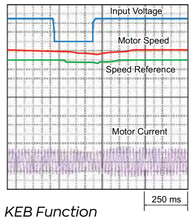

## DriveWizard Medium Voltage

- 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)


## Advanced Features




*Speed Search Function*




*KEB Function*

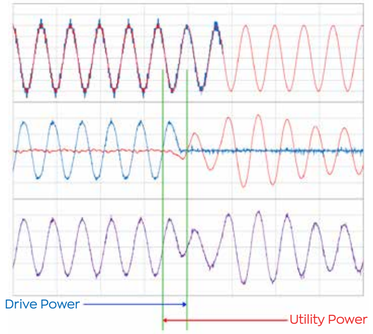
- Power Dip Ride Through
- Kinetic Energy Braking (KEB) Function
- Closed Transition Sync Transfer and Capture
- Speed Search
- Automatic Restart
- Auto Tuning
- Open Loop Vector
- V/Hz Control

## 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




## User Friendly Digital Operator


- Plain English
- Advanced monitoring
- Real Time Clock for Event Logging
- Five (5) line LCD display
- Same keypad interface used in 1000 series LVDs
- Multiple languages

**Fiber-Optic Based Controls for High Reliability (MTBF > 200,000 Hrs)**