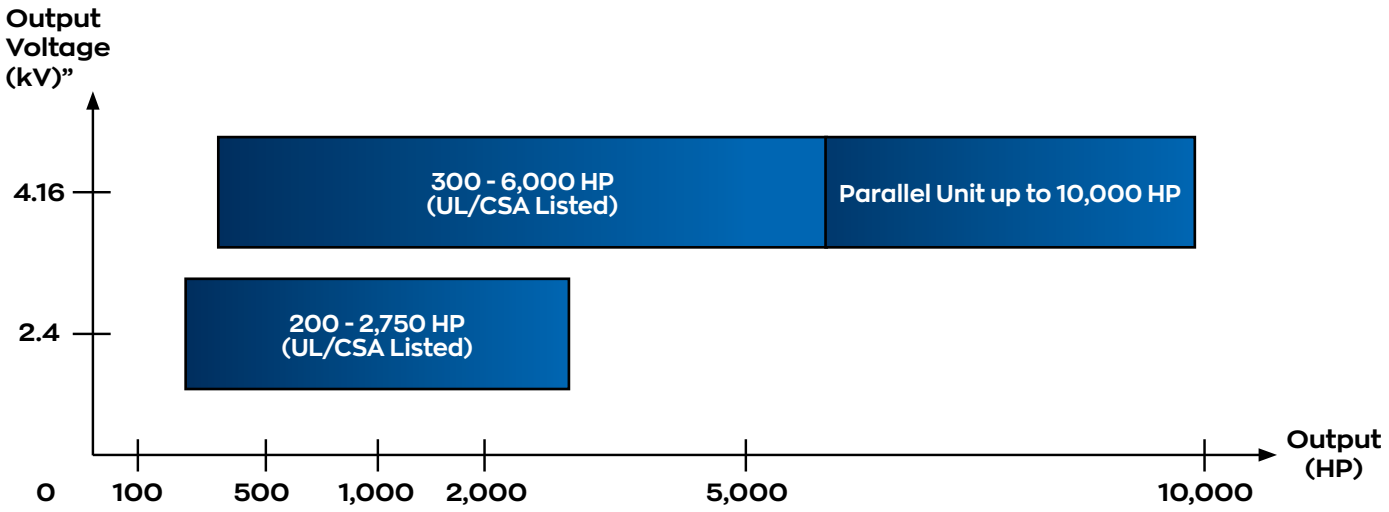
YASKAWA

MV1000

MEDIUM VOLTAGE AC DRIVE

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) 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 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

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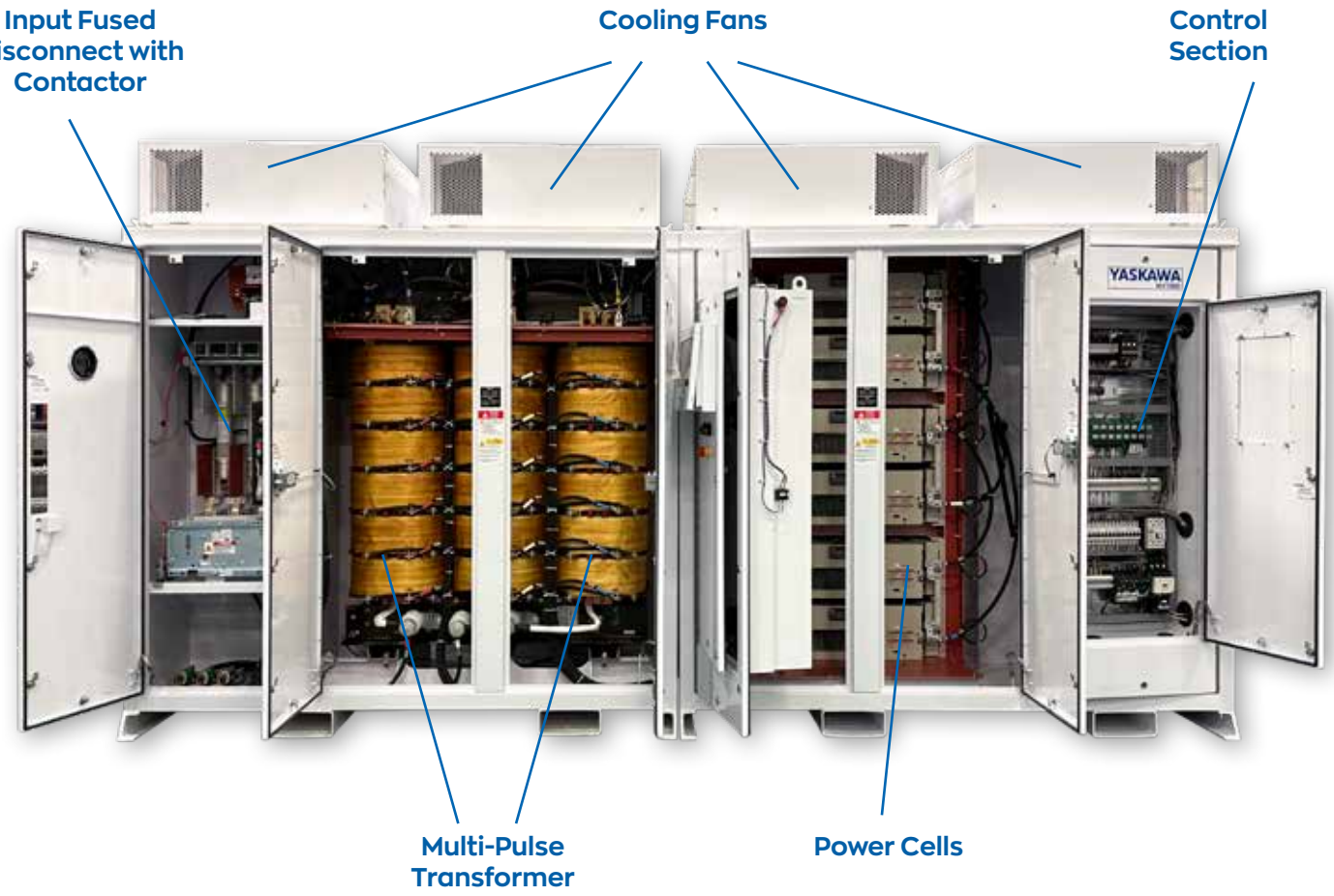
Simple Robust Compact Reliable Safe Feature Packed



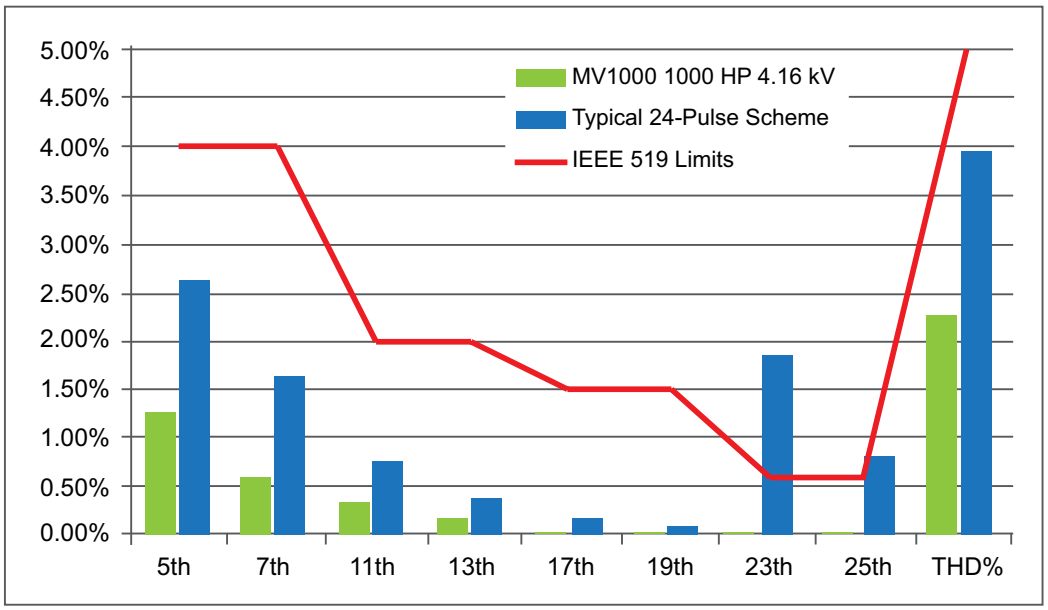
Yaskawa Quality: Second to None

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.

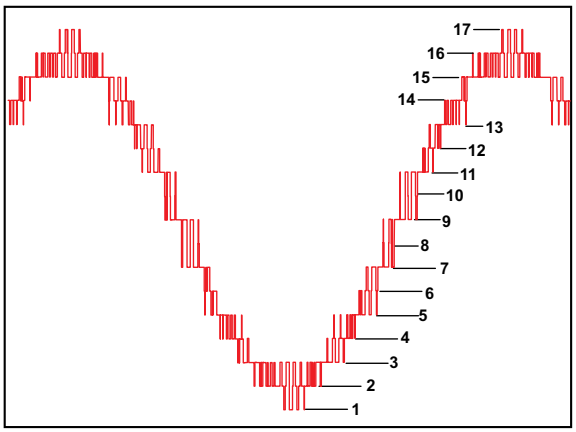
- **Internal Assembly Failure Rate 0.01%**
- **Field Assembly Failure Rate 0.0062%**

MV1000 Features and Advantages

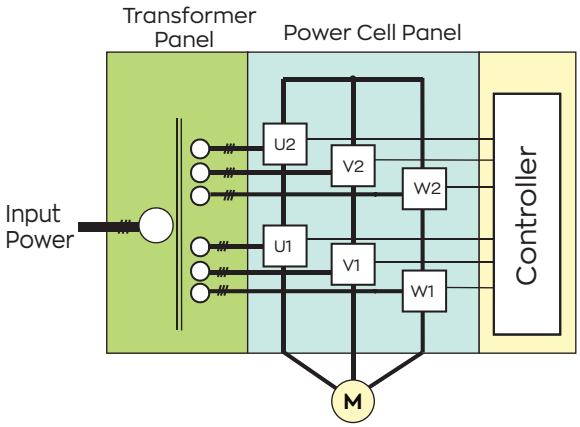
Yaskawa Smart Harmonic Technology, Exceeds IEEE-519 Requirements



Motor Friendly 17-Level Phase-to-Phase Waveform



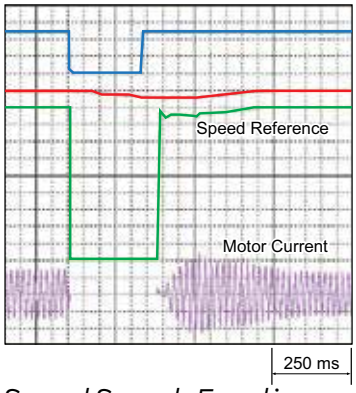
Easy Maintenance with Modular Construction



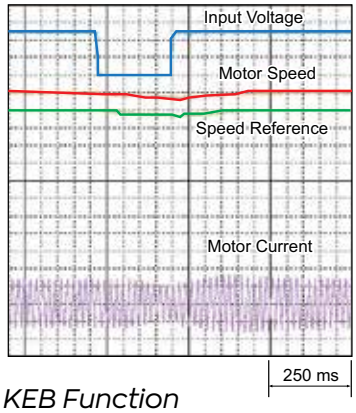
DriveWizard Medium Voltage

- 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

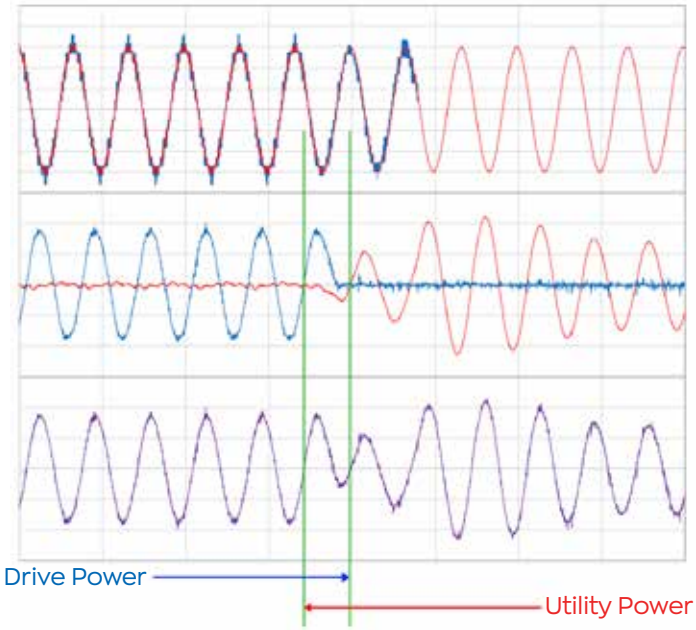
- Power Dip Ride Through
- Kinetic Energy Braking (KEB) Function
- Closed Transition Sync Transfer and Capture
- Speed Search
- Automatic Restart
- Auto Tuning
- Open Loop Vector
- V/Hz Control

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)

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

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