

V1000



1/8 to 25 HP



A World of Power in the Palm of your Hand!

The V1000 is a world-class compact current vector drive that defines a new world standard. Demands for efficient production and better maintainability are on the rise, spurred by global competition. Yaskawa drives have earned a reputation for high performance, high functionality, and high quality.

In our pursuit to create drives optimized for the market, Yaskawa has created the first compact current vector drive equipped with the following standard features:

- Up to 30% smaller than the competition
- Current vector control, open loop
- RoHS compliance
- On-line tuning
- Induction motor (IM) or permanent magnet synchronous motor (PM) operation
- Function Block Diagram (FBD) programming via DriveWorksEZ™
- Starting torque of 200% at 0.5 Hz
- Side-by-side installation due to advanced special alloy hybrid heatsink
- Preset applications
- Preferred parameter feature
- Removable terminal block with parameter backup function
- "One-touch" copy function with verify
- Super-fast 2 ms scan cycle with dual CPU
- EN954-1 Safety Category 3, Stop Category 0
- Increased vibration resistance, from 20 Hz to 50 Hz (0.65G)
- 1 in 10,000 failure rate
- Swing PWM function to decrease noise at low carrier frequencies
- Ingenious pre-maintenance function
- Modbus communication up to 115 kbps
- Reduction in actual mechanical parts
- Cooling fan replacement without tools
- MTBF: 28 years
- Short circuit withstand rating: 30K RMS



200-240V Single Phase 50/60 Hz								
Model CIMR-VU	BA0001	BA0002	BA0003	BA0006	BA0010	BA0012	BA0018	
Motor Capacity (HP)	ND	1/4	1/4	3/4	1	3	3	5
	HD	1/8	1/4	1/2	1	2	3	5
Output Current A (rms)	ND	1.2	1.9	3.3	6.0	9.6	12.0	17.5
	HD	0.8	1.6	3.0	5.0	8.0	11.0	17.5

200-240V Three Phase 50/60 Hz												
Model CIMR-VU	2A0001	2A0002	2A0004	2A0006	2A0010	2A0012	2A0020	2A0030	2A0040	2A0056	2A0069	
Motor Capacity (HP)	ND	1/4	1/4	3/4	1	3	3	5	10	10	20	25
	HD	1/8	1/4	1/2	1	2	3	5	7.5	10	15	20
Output Current A (rms)	ND	1.2	1.9	3.5	6.0	9.6	12.0	19.6	30	40	56	69
	HD	0.8	1.6	3.0	5.0	8.0	11.0	17.5	25	33	47	60

380-480V Three Phase 50/60 Hz												
Model CIMR-VU	4A0001	4A0002	4A0004	4A0005	4A0007	4A0009	4A0011	4A0018	4A0023	4A0031	4A0038	
Motor Capacity (HP)	ND	1/2	1	2	3	4	5	7.5	10	15	20	25
	HD	1/2	3/4	2	3	3	4	5	10	10	15	20
Output Current A (rms)	ND	1.2	2.1	4.1	5.4	6.9	8.8	11.1	17.5	24	31	38
	HD	1.2	1.8	3.4	4.8	5.5	7.2	9.2	14.8	18	24	31

Available Options

- Screwless terminals
- Integral EMC Filter (C1, C2, C3)
- 24 Vdc power supply
- Network Communications: Profibus, DeviceNet, EtherNet/IP, Modbus TCP/IP

V1000 Specifications

Overload Capacity

150% Overload for 60 sec. (Heavy Duty)

120% Overload for 60 sec. (Normal Duty)

Output Frequency

0~400 Hz (higher frequencies available with custom software)

Control Methods

Open Loop Current Vector Control, V/f Control,

PM Open Loop Vector Control

Simple closed loop speed control available

Protective Design

IP20/NEMA1; IP66/NEMA4 (dust/water-proof) future

Braking Transistor

Standard in all models

Braking Torque

20 - 40% increase with intelligent high-slip braking function

KEB Function

Uses mechanical energy to continue operation during momentary power failure, standard

Overvoltage Function

Prevention function for die-cushion in a hydraulic mechanical press and other applications

Maintenance

Elapsed timer assists in preventative maintenance for cooling fan, capacitors, and transistors

Easily replaceable cooling fan

Global Certification

CE, UL, cUL, RoHS, TUV

Available I/O

(7) multi-function digital inputs

(1) hardwire baseblock

(2) multi-function analog inputs

(1) multi-function pulse input

(1) multi-function relay output

(2) multi-function photo-coupler outputs

(1) multi-function 0-10 Vdc analog output

(1) multi-function pulse output

Network Communication

Standard: RS-422/485 MODBUS 115 kbps

Optional: DeviceNet, EtherNet/IP, Profibus-DP,

Modbus TCP/IP

Keypad Operator

Standard LED 5 digit display

Optional multi-lingual, full-text remote LCD

Major Applications



Conveyor



Packaging



Fan



Pump



Food & Beverage

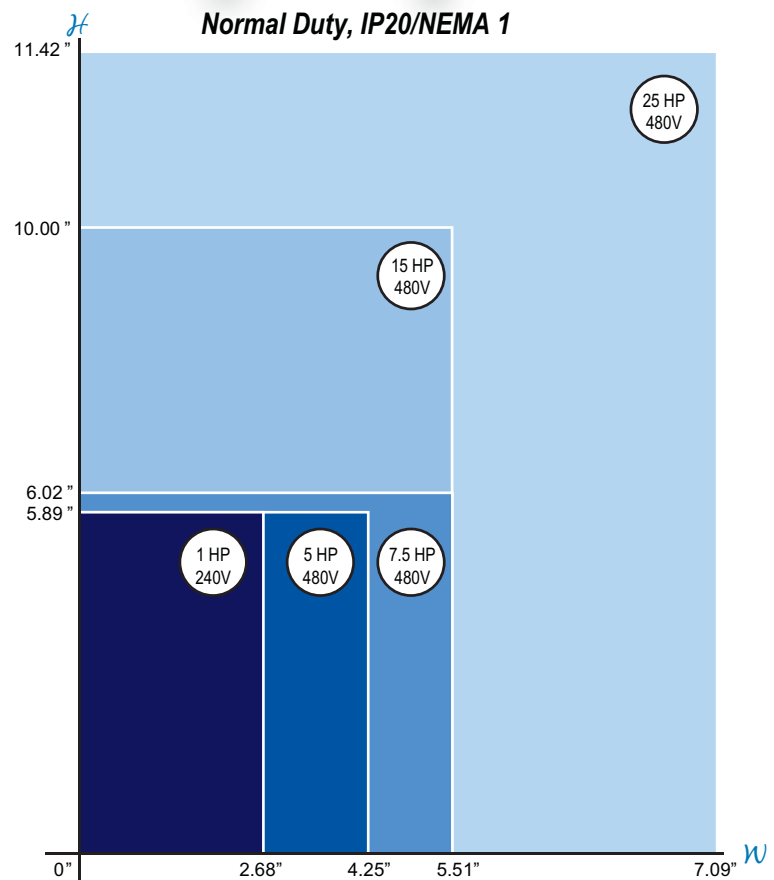


Industrial Washer



Compressor

Size Comparison



Yaskawa Electric America, Inc.

2121 Norman Drive South

Waukegan, IL 60085

800-YASKAWA (927-5292) Fax: 847-887-7310

DrivesHelpDesk@yaskawa.com www.yaskawa.com