YASKAWA™

Z1000 HVAC Drive
3 HP to 500 HP
Fan and Pump Applications

The Z1000 variable speed drive is designed for building automation applications such as fans, pumps, and cooling towers through 500 HP. The Z1000 features an easy-to-read LCD keypad that provides Hand-Off-Auto interface and a real time clock. These features make the Z1000 perfect for most building automation applications that require reliable motor control.

Harmonic Mitigation*
Built-in 5% line impedance for input harmonic reduction.

Noise Filter*
On board EMI/RFI filter complies with IEC 61800-3 restricted distribution for first environment.

Serial Communications
Embedded BACnet communications (BTL Certified), along with Modbus/Memobus.

Ratings
Plenum Rated (UL 1995). Seismic Rated (IBC 2012). Made with RoHS compliant materials.

Internal Real-Time Clock
Time and date stamping for events, along with timer controls for starting stopping and speed changes without the need for external controls.

PI Feature
Maintains a set point for closed loop control of fans and pumps for pressure, flow or temperature regulation and eliminates the need for a closed loop output signal from a BAS. Independent PI to control an external device in the system.

LCD Operator
5-Line 16 character alpha-numeric, easy to read and understand display, with Hand-Off-Auto functions.

Carrier Frequency
5 kHz carrier frequency with dynamic noise control for quiet motor operation.

Application Macros
Choose from pre-configured set up macros to match the application for quick and easy set up.

Sealed Heatsink*
Allows for drive to be mounted in a NEMA 12 enclosure with heatsink external.

Available only as options, 300-500HP ratings.

Specifications

Overload Capacity
- 110% for 60 seconds,

Output Frequency
- 0.01 to 240 Hz

Control Methods
- V/Hz Control
- Open Loop Vector Control for Permanent Magnet motors

Motor Types
- Squirrel Cage Induction
- Interior Permanent Magnet (IPM)

Enclosures
- NEMA Type 1 / IP20 : 3 - 100 HP 208V and 3 - 250 HP 480V
- Open Type / IP00 : 125 - 150 HP 208V and 300 - 500 HP 480V

Ambient Operating Temperature
- -10°C to 40°C (14°F to 104°F)

Certification
- UL, CSA, CE, IBC, RoHS

Standard I/O
- Seven Multi-Function Programmable Digital Inputs (24Vdc)
- Two Multi-Function Programmable Analog Inputs (0-10VDC or 4-20mA)
- One Fault Relay Output (Form C - 2 Amps at 250Vac max)
- Three Multi-Function Programmable Relay Output (Form A - 2 Amps @ 250Vac max)
- Two Multi-Function Programmable Analog Outputs (0-10Vdc or 4-20mA)
- One 24 Vdc, 150 mA Transducer or Transmitter Power Supply for customer use

Network Communications
- Built-in Metasys, APOGEE FLN, BACnet, RS485/422 - Programmable up to 76.8 kbps
- Optional: LonWorks, EtherNet/IP

ECHELON®   METASYS COMPATIBLE

APOGEE ANYWHERE   BACnet®

Z1000 HVAC Drive
3 HP to 500 HP
Fan and Pump Applications

Model Number CIMR-ZU2A	Rated Output Current (Amps)	HP	Dimensions (in.)			Enclosure Type
			H	W	D	
0011FAA	10.6	3	14.1	4.9	8.6	IP20 NEMA Type 1
0017FAA	16.7	5	14.1		8.6	
0024FAA	24.2	7.5	17.6		9.2	
0031FAA	30.8	10	17.6		9.2	
0046FAA	46.2	15	20.1	7.9	9.4	
0059FAA	59.4	20	20.1	7.9	9.4	
0075FAA	74.8	25	21.3	10.0	10.3	
0088FAA	88.0	30	21.3	10.0	10.3	
0114FAA	114	40	21.3	10.0	10.3	
0143FAA	143	50	30.5	13.4	15.7	
0169FAA	169	60	30.5	13.4	15.7	
0211FAA	211	75	30.5	13.4	15.7	
0273FAA	273	100	30.5	13.4	15.7	
0343AAA	343	125	31.5	19.7	13.8	IP00 Open-Type
0396AAA	396	150	31.5	19.7	13.8	

Model Number CIMR-ZU4A	Rated Output Current (Amps)	HP	Dimensions (in.)			Enclosure Type
			H	W	D	
0005FAA	4.8	3	14.1	4.9	8.6	IP20 NEMA Type 1
0008FAA	7.6	5	14.1		8.6	
0011FAA	11.0	7.5	14.1		8.6	
0014FAA	14.0	10	17.6		9.2	
0021FAA	21.0	15	17.6		9.2	
0027FAA	27.0	20	17.6		9.2	
0034FAA	34.0	25	20.1	7.9	9.4	
0040FAA	40.0	30	20.1	7.9	9.4	
0052FAA	52.0	40	21.3	10	10.3	
0065FAA	65.0	50	21.3	10	10.3	
0077FAA	77.0	60	21.3	10	10.3	
0096FAA	96.0	75	21.3	10	10.3	
0124FAA	124	100	27.6	11.8	11.4	
0156FAA	156	125	30.5	14.2	15.7	
0180FAA	180	150	30.5	14.2	15.7	
0240FAA	240	200	30.5	14.2	15.7	
0302FAA	302	250	41.1	16.1	18.9	
0361AAA	361	300	37.4	19.7	14.6	IP00 Open-Type
0414AAA	414	350	44.9	26.4	14.6	
0480AAA	480	400	44.9	26.4	14.6	
0515AAA	515	450	44.9	26.4	14.6	
0590AAA	590	500	44.9	26.4	14.6	

FREE Estimating Tools

- Energy Savings Predictor
- Harmonics Estimator
- Carbon Footprint Calculator

iTunes App

Energy savings app for the iPhone and the iPod touch is available at iTunes.com - search for Yaskawa.

Yaskawa America, Inc. | Tel: 1-800-YASKAWA (927-5292) | www.yaskawa.com
Drives & Motion Division