YASKAWA

Z1000U

HVAC Matrix Drive

Merging Green and Technology

Add significantly to your green initiative with the Yaskawa Z1000U HVAC Matrix Drive, the product that goes beyond conventional drive performance by combining excellent low harmonic levels, input power factor and energy saving capabilities.

The HVAC Matrix drive (Z1000U) provides extremely low harmonic distortion in a space-saving design, along with the same HVAC-specific features as the standard Z1000. This single-component solution achieves excellent low distortion levels, completely without the need for additional countermeasures such as passive filters or multi-pulse arrangements. Unlike conventional drives, Yaskawa's matrix technology creates a variable output by switching directly from the input power (no DC bus). Not only does the Matrix drive provide outstanding harmonic performance, but being a member of the Z1000 family, it provides the same user experience for those already familiar with commissioning and maintaining the standard Z1000.

Primary Features & Benefits

- Low Input Distortion Across a Wide Load and Speed Range
- Helps to Assure Compliance with IEEE 519 (< 5% THD)
- Eco-Mode to Achieve Near Across-the-Line THD
- High Efficiency Design Provides Extra Energy Savings as Compared to Other Low Harmonic Solutions
- Near Unity True Power Factor at Full Load
- 0.98 Displacement Power Factor Throughout Entire Load and Speed Range
- Integrated Input Fusing Provides 100 kA SCCR
- Integrated C2 EMC Filter
- Compact Design
- High Reliability with an MTBF of 28 Years
- Embedded BACnet Communications (BTL Certified)
- Embedded Real Time Clock for Event Stamping
- High Carrier Frequency (Low Motor Noise) Capability
- 0-400 Hz Output Frequency
- 120% Overload for 60 Seconds
- Motor Auto-tuning
- Multi-language LCD Display, with Hand/Off/Auto and Copy function
- DriveWizard® HVAC Software
- Embedded Timer Functions for Starting, Stopping and Speed Changes
- Start into Spinning Load (Speed Search)
- Both Induction and Permanent Magnet Motor Control

208-240 V POWER RANGE
- 10 - 100 HP

380-480 V POWER RANGE
- 7.5 - 350 HP

AMBIENT OPERATING TEMP
- -10°C to 50°C (14°F to 122°F) (Open Type IP00)

CERTIFICATION
- UL, CSA, CE, RoHS

STANDARD I/O
- (8) Multi-function digital inputs
- (3) Multi-function analog inputs
- (3) Multi-function relay outputs
- (2) Multi-function 0-10 VDC or 4-20 mA analog outputs
- (1) Fault relay

COMMUNICATIONS
- Embedded: BACnet, Metasys N2, Siemens Apogee FLN and Modbus/Memobus
- Optional: LonWorks and EtherNet/IP

AVAILABLE PACKAGES
- Bypass
- Configured
- NEMA 1 Kit
- Redundant

Dimensions & Specifications

Open Chassis (IP00)

208 - 240 V Class			Dimensions in mm (in)				Weight in kg (lb)
Model: CIMR-ZU2E□	Amps	HP 240V (208V)	Fig. No.	H	W	D	
0028	28	10 (7.5)	1	480 (18.89)	250 (9.84)	360 (14.17)	21 (46)
0042	42	15 (10)		650 (25.60)	264 (10.39)	420 (16.53)	33 (73)
0054	54	20 (15)					
0068	68	25 (20)					36 (79)
0081	81	30 (25)					
0104	104	40 (30)	2	816 (32.12)	264 (10.39)	450 (17.71)	63 (139)
0130	130	50 (40)					
0154	154	60 (50)	3	990 (38.97)	415 (16.33)	403 (15.86)	115 (254)
0192	192	75 (60)					
0248	248	100 (75)	4	1132 (44.56)	490 (19.29)	450 (17.71)	181 (389)

480 V Class			Dimensions in mm (in)				Weight in kg (lb)
Model: CIMR-ZU4E□	Amps	HP	Fig. No.	H	W	D	
0011	11	7.5	1	480 (18.89)	250 (9.84)	360 (14.17)	21 (46)
0014	14	10					
0021	21	15					
0027	27	20					
0034	34	25					
0040	40	30		650 (25.60)	264 (10.39)	420 (16.53)	33 (73)
0052	52	40					
0065	65	50					36 (79)
0077	77	60					
0096	96	75	2	816 (32.12)	264 (10.39)	450 (17.71)	63 (139)
0124	124	100					
0156	156	125	3	990 (38.97)	415 (16.33)	403 (15.86)	115 (254)
0180	180	150					
0216	216	175	4	1132 (44.56)	490 (19.29	450 (17.71)	181 (399)
0240	240	200					
0302	302	250		1132 (44.56)	695 (27.36)	450 (17.71)	267 (589)
0361	361	300					
0414	414	350					

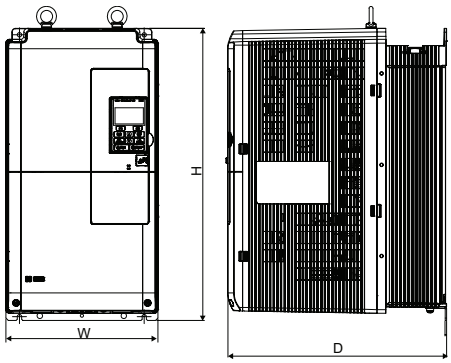


Figure 1

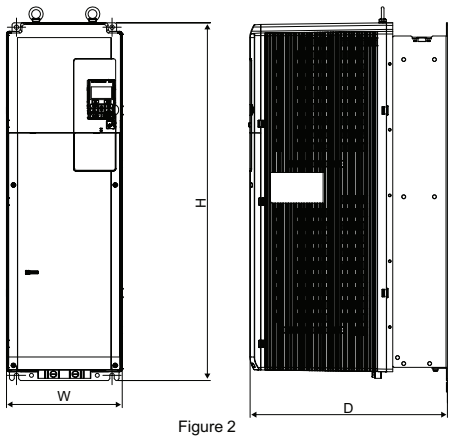


Figure 2

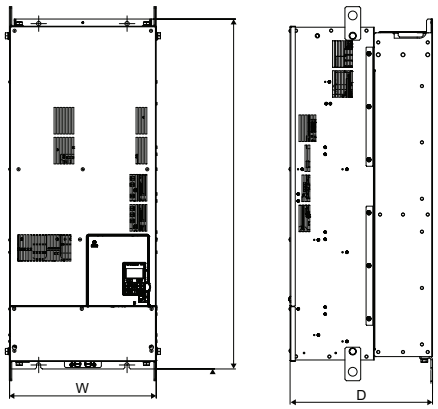


Figure 3

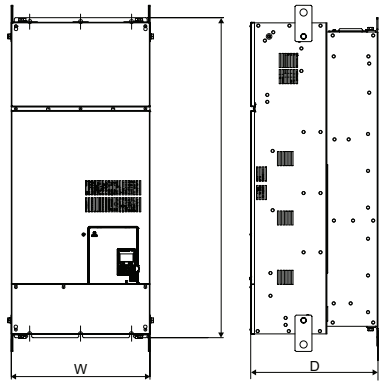
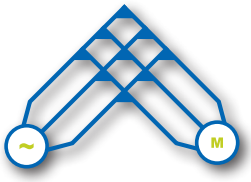


Figure 4



Z1000U MATRIX INNOVATION

Improved Energy Efficiency with Direct Conversion from AC-to-AC

CONSULTING - SPECIFYING engineer 2016 PRODUCT OF THE YEAR | Most Valuable Product

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