

# YASKAWA

Industrial **MATRIX** Drive  
U1000

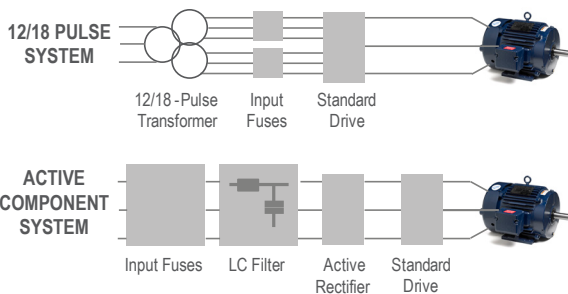
## Industrial Matrix Drive U1000

5 to 350 HP

**Increase your green space with Yaskawa's Industrial Matrix Drive (U1000), the product that goes beyond conventional drives, providing outstanding harmonic performance and regeneration in a single stand-alone component.**

Enjoy extremely low harmonic distortion and regeneration in a space-saving design, completely without the need for additional components. Unlike conventional drives, Yaskawa's matrix technology creates a variable output by switching directly from the input power (no DC bus). Additionally, the Matrix drive is a member of the Yaskawa industrial drive family, and provides the same user experience.

### USING COMPLICATED SYSTEMS FOR LOW HARMONICS OR POWER REGENERATION?



### TRY THE EFFICIENT WAY WITH THE U1000 INDUSTRIAL MATRIX DRIVE



**U1000**  
LESS SPACE, FASTER SETUP,  
HIGHER EFFICIENCY

### PRIMARY FEATURES & BENEFITS

- Full Regeneration
- Low Input Distortion Across a Wide Load and Speed Range
- IEEE-519 Compliant (<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
- Integrated Input Fusing Provides 100kA SCCR
- Compact Design
- High Reliability with an MTBF of 28 Years
- Embedded Modbus RTU Communications
- Removable Terminal Block
- Safe Torque Off rated for SIL CL3 and PLe
- High Carrier Frequency (Low Motor Noise) Capability
- 0-400 Hz Output Frequency
- 120% Overload for 60 Seconds (ND)
- 150% Overload for 60 Seconds (HD)
- Multi-language LCD Display with Copy function
- DriveWizard® Software
- Start into Spinning Load (Speed Search)
- Both Induction and Permanent Magnet Motor Control



### 240 V POWER RANGE

- 10 - 100 HP (ND), 7.5 - 75HP (HD)

### 480 V POWER RANGE

- 7.5 - 350 HP (ND), 5 - 300HP (HD)

### AMBIENT OPERATING TEMP

- -10°C to 50°C (OPEN TYPE IP00)

### CERTIFICATION

- UL, CSA, CE, RoHS

### STANDARD I/O

- (8) Digital Inputs
- (3) Analog Inputs
- (1) Pulse Train Input
- (2) Safe Torque Off Inputs
- (4) Relay Outputs
- Analog Outputs
- (1) Pulse Train Output
- (1) Safe Torque Off Output

### STANDARD COMMUNICATIONS

- Modbus RTU

### CONTROL OPTIONS

- EtherNet/IP
- Modbus TCP/IP
- DeviceNet
- Profibus DP
- Profinet
- Expandable I/O
- Incremental Encoder
- Absolute Encoder
- Resolver

### MECHANICAL OPTIONS

- NEMA 1 Kit
- External Heatsink



## Industrial Matrix Drive U1000

5 to 350 HP

### U1000 Dimensions & Specifications

Open Chassis  
(IP00)

240 V Class			Dimensions (inches)				Weight (lb)
Model: CIMR-UU2A□	Amps ND / HD	HP ND / HD	Fig. No.	H	W	D	
0028AUA	28 / 22	10 / 7.5	1	18.89	9.84	14.17	44
0042AUA	42 / 28	15 / 10		71			
0054AUA	54 / 42	20 / 15		77			
0068AUA	68 / 54	25 / 20					
0081AUA	81 / 68	30 / 25	2	32.12	10.39	17.71	132
0104AUA	104 / 81	40 / 30					
0130AUA	130 / 104	50 / 40					
0154AUA	154 / 130	60 / 50	3	38.97	16.33	15.86	245
0192AUA	192 / 154	75 / 60					
0248AUA	248 / 192	100 / 75		44.56	19.29	17.71	388

480 V Class			Dimensions (inches)				Weight (lb)
Model: CIMR-UU4A□	Amps ND / HD	HP ND / HD	Fig. No.	H	W	D	
0011AUA	11 / 9.6	7.5 / 5	1	18.89	9.84	14.17	44
0014AUA	14 / 11	10 / 7.5					
0021AUA	21 / 14	15 / 10					
0027AUA	27 / 21	20 / 15					
0034AUA	34 / 27	25 / 20		25.60	10.39	16.53	71
0040AUA	40 / 34	30 / 25					
0052AUA	52 / 40	40 / 30					
0065AUA	65 / 52	50 / 40					
0077AUA	77 / 65	60 / 50	2	32.12	10.39	17.71	132
0096AUA	96 / 77	75 / 60					
0124AUA	124 / 96	100 / 75					
0156AUA	156 / 124	125 / 100	3	38.97	16.33	15.86	245
0180AUA	180 / 156	150 / 125					
0216AUA	216 / 180	175 / 150		44.56	19.29	17.71	388
0240AUA	240 / 216	200 / 175					
0302AUA	302 / 240	250 / 200	44.56	27.36	17.71	571	
0361AUA	361 / 302	300 / 250					
0414AUA	414 / 361	350 / 300					

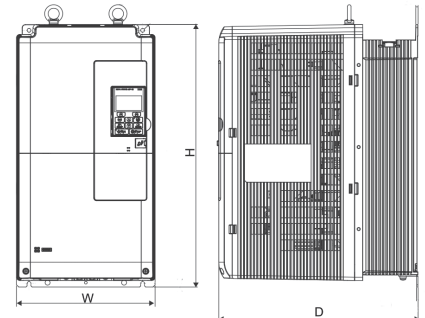


Figure 1

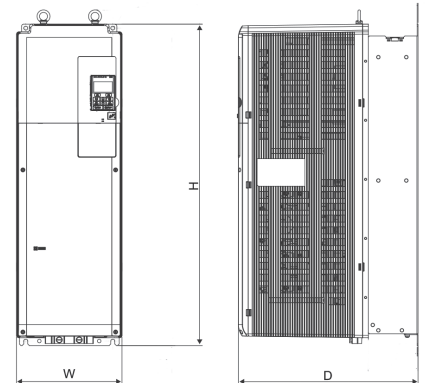


Figure 2

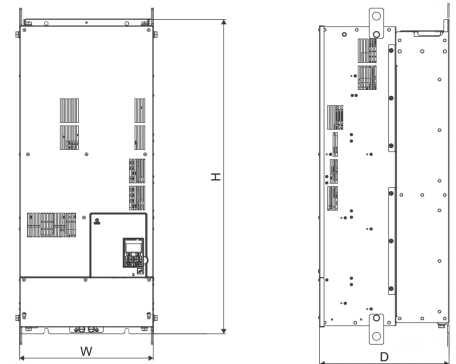
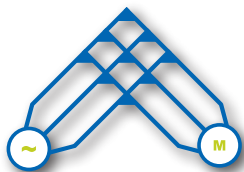


Figure 3



### U1000 MATRIX INNOVATION

Improved Energy Efficiency with Direct Conversion from AC to AC