

YASKAWA

Industrial **MATRIX** Drive
U1000

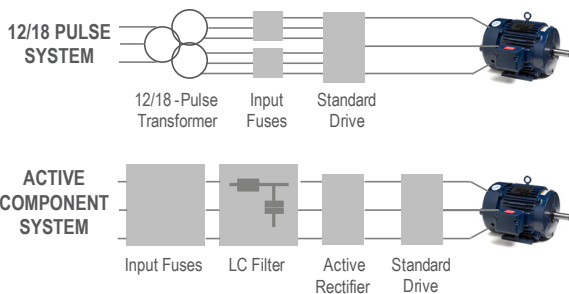
Industrial Matrix Drive U1000

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



**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
(IPO0)

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					
0104AUA	104 / 81	40 / 30	2	32.12	10.39	17.71	132
0130AUA	130 / 104	50 / 40	3	38.97	16.33	15.86	245
0154AUA	154 / 130	60 / 50					
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					
0040AUA	40 / 34	30 / 25		25.60	10.39	16.53	71
0052AUA	52 / 40	40 / 30					
0065AUA	65 / 52	50 / 40					
0077AUA	77 / 65	60 / 50					
0096AUA	96 / 77	75 / 60					
0124AUA	124 / 96	100 / 75	2	32.12	10.39	17.71	132
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					
0361AUA	361 / 302	300 / 250	44.56	27.36	17.71	571	
0414AUA	414 / 361	350 / 300					

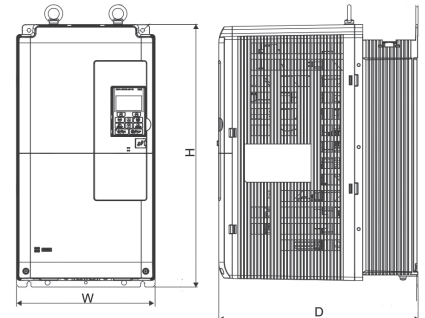


Figure 1

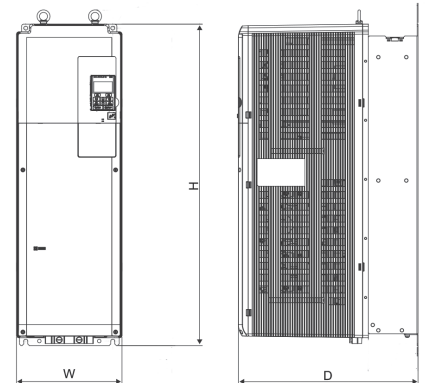


Figure 2

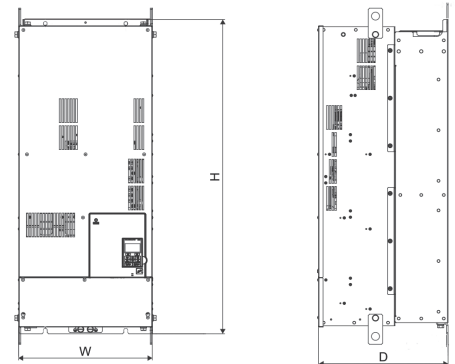
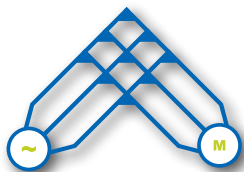


Figure 3



U1000 MATRIX INNOVATION

Improved Energy Efficiency with Direct Conversion from AC to AC