

P1000 Industrial Fan and Pump Drive

240V Class: $\frac{3}{4}$ to 175 HP

480V Class: 1 to 1000 HP

600V Class: 1 to 250 HP



The P1000 drive provides simple, reliable, cost-effective control for variable-torque loads through 1000 HP. Specific application features, energy savings, and network connectivity make the P1000 a great choice for industrial fans and pumps.

Real Time Clock

Control the P1000 based on time of day and/or get time-stamped event information with a battery-backed clock that is built into the large LCD display keypad.

Fan and Pump Application Presets

Reduce startup time by answering simple motor and application questions specific to fans and pumps.

Customizable Display for Engineering Units

Allows for easy configuration of keypad display to match process and feedback devices such as PSI, GPM, Feet.

Underload Detection

Monitors the load and stops the system in the event of a fan belt or pump shaft failure.

Parameter Storage and Removable Terminal Board

Reduce MTTR (Mean Time To Repair) by transferring original terminal board to replacement drive with all controls, wires, and parameter configuration intact.

PI Process Control

Two separate embedded control loops. One for controlling a process variable related to drive speed. A second for controlling something completely independent of the drive. Additionally, the P1000 provides a 24VDC, 150mA supply for applying power to sensors.

Power Quality Friendly

Built-in DC reactors (30 HP and larger) provide input harmonics benefit, and protection from input disturbances. Integrated 12 Pulse version (480V, 40 HP and larger) provides a cost-effective solution for even lower harmonics.

Dynamic Noise Control

Minimizes drive-related audible motor noise under light load conditions.

Networking Options

- Modbus RTU (built-in)
- DeviceNet
- EtherCAT
- EtherNet/IP
- MECHATROLINK-II
- MECHATROLINK-III
- Modbus TCP/IP
- PROFIBUS-DP
- PROFINET.

Specifications

Continuous Load Capacity

- Variable Torque (square of percent speed)

Intermittent Load Capacity

- 120% for 60 seconds

Output Frequency

- 0.01 to 400 Hz

Enclosure Solutions

- Open Type / IP00
- NEMA Type 1 (kit required for some models)
- Flange Type (front = Open/IP00, back = NEMA Type 12)

Power Solutions

- 6-Pulse (standard)
 - 240V: $\frac{3}{4}$ to 175 HP
 - 480V: 1 to 1000 HP
 - 600V: 1 to 250 HP
- 12-Pulse (low harmonic)
 - 480V: 40 to 1000 HP

Ambient Operating Temperature

- -10°C to 40°C (14°F to 104°F)

Global Certification

- UL, CSA, CE, RoHS, C-Tick

Standard I/O

- (8) multi-function digital inputs (24Vdc)
- (3) multi-function analog inputs (0-10 VDC, 4-20 mA)
- (1) multi-function pulse input
- (1) fault relay output (Form C)
- (1) multi-function relay (Form C)
- (2) multi-function relay outputs (Form A)
- (2) multi-function analog outputs (0 +/- 10 VDC, 4-20mA)
- Sensor feedback power supply (+24Vdc @ 150mA supply)
- 120V converter for 8 standard digital inputs (option)

P1000 Industrial Fan and Pump Drive

240V Class: 3/4 to 175 HP

480V Class: 1 to 1000 HP

600V Class: 1 to 250 HP

200-240V / 3-Phase

Model Number CIMR-PU	Rated Output Current (Amps)	HP	Dimensions (in.)		
			H	W	D
2A0004FAA	3.5	3/4	11.81	5.51	5.79
2A0006FAA	6.0	1			
2A0008FAA	8.0	2			
2A0010FAA	9.6	3			
2A0012FAA	12.0	3			6.46
2A0018FAA	17.5	5			
2A0021FAA	21.0	7.5			
2A0030FAA	30.0	10			6.57
2A0040FAA	40.0	15			
2A0056FAA	56.0	20			13.39
2A0069FAA	69.0	25	15.75	8.66	7.76
2A0081FAA	81.0	30			
2A0110FAA	110	40	21.02	10.00	10.16
2A0138FAA	138	50	24.17	10.98	
2A0169FAA	169	60	28.74	12.95	11.14
2A0211FAA	211	75			
2A0250AAA	250	100	27.76	17.72	12.99
2A0312AAA	312	125			
2A0360AAA	360	150	31.50	19.69	13.78
2A0415AAA	415	175			

380-480V / 3-Phase

Model Number CIMR-PU	Rated Output Current (Amps)	HP	Dimensions (in.)		
			H	W	D
4A0002FAA	2.1	1	11.81	5.51	5.79
4A0004FAA	4.1	2			
4A0005FAA	5.4	3			
4A0007FAA	6.9	4			
4A0009FAA	8.8	5			6.46
4A0011FAA	11.1	7.5			
4A0018FAA	17.5	10			
4A0023FAA	23.0	15			6.57
4A0031FAA	31.0	20			
4A0038FAA	38.0	25			13.39
4A0044FAA	44.0	30	15.75	8.66	7.76
4A0058FAA	58.0	40	18.31	10.00	10.16
4A0072FAA	72.0	50	20.28	10.98	
4A0088FAA	88.0	60	24.80	12.95	11.14
4A0103FAA	103	75			
4A0139FAA	139	100	28.74	17.95	12.99
4A0165FAA	165	125			
4A0208AAA	208	150	27.76	17.95	12.99
4A0250AAA	250	200	31.50	19.84	13.78
4A0296AAA	296	250			
4A0362AAA	362	300	37.40	19.69	14.57
4A0414AAA	414	350			
4A0515AAA	515	400 - 450	44.88	26.38	14.57
4A0675AAA	675	500 - 550			
4A0930AAA	930	600 - 800	54.33	49.21	14.57
4A1200AAA	1200	1000			

500-600V / 3-Phase

Model Number CIMR-PU	Rated Output Current (Amps)	HP	Dimensions (in.)		
			H	W	D
5A0003FAA	2.7	1 - 2	11.81	5.51	5.79
5A0004FAA	3.9	3			6.46
5A0006FAA	6.1	5			
5A0009FAA	9.0	7.5			6.57
5A0011FAA	11.0	10			
5A0017FAA	17.5	15			13.39
5A0022FAA	22.0	20	15.75	8.66	7.76
5A0027FAA	27.0	25			
5A0032FAA	32.0	30	20.28	10.98	10.16
5A0041FAA	41.0	40			
5A0052FAA	52.0	50	28.74	12.95	11.14
5A0062FAA	62.0	60			
5A0077FAA	77.0	75	37.8	17.95	12.99
5A0099FAA	99.0	100			
5A0125AAA	125	125	45.98	19.84	13.78
5A0144AAA	144	150			
5A0192AAA	192	200	45.98	19.84	13.78
5A0242AAA	242	250			

Enclosure Options

In addition to the standard models, the following P1000 solutions are available.

Flange Models: Allow for mounting of heat sink out the back of any Type 12 enclosure



Flange Models



Bypass and Configured Packages

Configured Packages: P1000 in a NEMA 1, 12, or 3R enclosure, with space for several commonly used options, such as reactors, RFI filters, circuit breakers, etc.

Bypass Packages: P1000 in a NEMA 1, 12 or 3R enclosure, with a 3-contactor style bypass, allowing motor operation from either the drive or across the line.

FREE Estimating Tools

- Energy Savings Predictor
- Harmonics Estimator
- Carbon Footprint Calculator
- Visit www.yaskawa.com for free download

