

AD1000

High performance variable frequency drive



Voltage and Power Range:

- 3 - Phase, 380-480 V
- 2 - 650 HP Variable Torque
- 1.5 - 500 HP Constant Torque



Product Overview and Features

The AD1000, a member of the ACCU-Series™ family of variable speed products, is a high-performance variable frequency drive that can reduce energy consumption by automatically adjusting to changing operating conditions in a wide range of water, wastewater, irrigation and other pump applications.

The AD1000 drive is designed with today's pump system requirements in mind. Developed by pump automation experts at Nidec, the versatile and reliable AD1000 is designed for optimum performance and reliability with minimal maintenance. While virtually 'plug and play' for standard applications, the AD1000's flexible, modular design can also be easily configured to meet the most challenging applications.

Key Features

- Easy to program and use
- Quick Start available
- Auto-tuning menu offers a wide range of easy-to-set parameters
- Parameters can be stored and transferred with keypad to other drives
- Password security options
- Comprehensive, easy-to-understand alerts and alarms

Pump Control Functions

- Process PID
- Anti-Blocking
- Auto Cleaning
- Frost Protection
- Soft Fill
- Motor Pause
- Well Draw-Down
- Constant Pressure Suction control
- Low Suction Pressure Detection

Low Energy Cost

- Can run multiple pumps at once
- Monitors conditions to optimize energy consumption

Maximun process uptime

- Monitors and schedules automated pump and motor cleaning
- Facilitates preventive and predictive maintenance programming

Extends equipment life

- Reduces startup stress on the system
- Monitors conditions and protects the motor



AD1000 the preferred choice

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Technical Data

CONTROL CHARACTERISTICS	
Control Method:	V/Hz, Sensorless Vector
Switching frequency:	See Manual
Frequency accuracy (V/Hz):	0.1% (analog control) 0.01% (digital control)
Torque control response time:	5ms (sensorless)
ENVIRONMENTAL CONDITIONS	
Operating temperature:	0-40°C (1% current derating for every °C, 55°C max)
Storage temperature:	-25 to +70°C
Relative humidity:	95% (without condensation)
Altitude ASL:	1000m (1% current derating for every 100m, max 3000m)
Protection grade:	IP20 Frames I-VIN IP00 Frames VII-VIII
Cooling:	Air cooling with internal fan

Ratings and Dimensions

AD1000 Chassis - 6 pulse AC version - 380/480 V											
Model	Frame	CI.1 - Overload: 110% for 1 min, every 10 min			CI.2 - Overload: 150% for 1 min, every 10 min			Dimensions			
		Rated output current	Typical motor (4p) @400V		Rated output current	Typical motor (4p) @400V		Height	Width	Depth	Weight
			A	HP		A	A				
AD1A0P3FBBNH	I	3.8	2	3.4	2.1	1.5	2	10.7	5.2	6.7	8.8
AD1A0P4FBBNH	I	5.6	3	4.8	3.8	2	3.4	10.7	5.2	6.7	8.8
AD1A0P6FBBNH	I	9.5	5	7.6	5.6	3	4.8	10.7	5.2	6.7	8.8
AD1A008FBBNH	II	12	7.5	11	9.5	5	7.6	13.4	5.1	8.8	12.1
AD1A011FBBNH	III	16	10	14	12	7.5	11	17.4	5.1	8.8	17.6
AD1A015FBBNH	III	21	15	19.7	16	10	14	17.4	5.1	8.8	17.6
AD1A018FBBNH	IIIX	25	20	25	21	15	19.7	18.4	5.1	9.7	17.6
AD1A022FBBNH	IIIX	32	25	30.5	25	20	25	18.4	5.1	9.7	17.6
AD1A028FBBNH	IIIL	40	30	36	32	25	30.5	18.4	5.1	10.2	23.1
AD1A030FBBFH	IIIN	40	30	36	32	25	30.5	17.9	9.7	11	70.5
AD1A036FBBFH	IIIN	52	40	49	40	30	36	17.9	9.7	11	70.5
AD1A045FBNFH	IVN	65	50	62	52	50	49	26.6	11.4	11.4	79.4
AD1A053FBNFH	IVN	77	60	71	65	50	62	26.6	11.4	11.4	79.4
AD1A066FBNFH	IVN	96	75	86	77	60	71	26.6	11.4	11.4	88.2
AD1A086FBNFH	VN	124	100	109	96	75	86	29.7	11.4	12	114.6
AD1A108FBNFH	VN	156	125	139	124	100	109	29.7	11.4	12	114.6
AD1A125FBNFH	VIN	180	150	173	156	125	139	39.4	11.8	13.2	194
AD1A150FBNFH	VIN	210	150	173	180	150	173	39.4	11.8	13.2	211.6
AD1A166FBNFH	VIN	240	200	226	200	150	173	39.4	11.8	13.2	211.6
AD1A210FBNFH	VII	300	250	281	240	200	226	42	11.4	20.7	265
AD1A260FBNFH	VII	370	300	333	285	250	281	42	11.4	20.7	265
AD1A290FBNFH	VII	410	350	388	320	250	281	42	11.4	20.7	265
AD1A350FBNFH	VIII	510	400	477	385	300	333	58.7	11.4	20.7	441
AD1A370FBNFH	VIII	540	450	501	410	350	388	58.7	11.4	20.7	441
AD1A440FBNFH	VIII	640	550	605	510	400	477	58.7	11.4	20.7	441
AD1A480FBNFH	VIII	690	600	676	530	450	501	58.7	11.4	20.7	441
AD1A520FBNFH	VIII	750	650	725	585	500	556	58.7	11.4	20.7	441

About ACCU-SERIES™

The ACCU- SERIES™ family of variable speed products offers product compatibility for a true system solution. Customers can easily match a U.S. MOTORS brand inverter duty motor with a drive or panel and enjoy the benefits of a motor match warranty on the drive.

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