



AF-300 P11™

Adjustable Frequency Drive

The AF-300 P11 Adjustable Frequency Drive is easy to use out of the box at a price that you can afford. The AF-300 P11 is an AC packaged drive that provides the functionality required for variable torque loads such as fans, pumps and compressors. Forward/Reverse and Simple commands from the local or remote keypad or from the facility management system along with pre-loaded motor

parameters and factory defaults allows for quick and ready to go installation. The AF-300 P11 offers expanded horsepower ratings in both 230 VAC (1/4 to 150 Hp) and 460 VAC (1/2 to 800 Hp) for even greater range of application.

The AF-300 P11 has an array of functions that provides significant benefits in variable torque applications. New standard features includes: auto-tuning without having to rotate the motor, built in PID control, rotating motor pick up control (catch

spinning motor), automatic energy-saving operation which minimizes drive and motor loss at light load and other functions to combine performance and energy savings. The new generation IGBT means reduced electrical noise and less voltage spiking. On-line-tuning provides a continuous check for variation of motor characteristics during running of high-precision speed control. And the energy savings mode will help lower operating costs. In ratings of 30Hp and less the AF-300 P11 is designed for side by side installation with zero clearance for optimum use in space restricted areas. All of this power, versatility and reliability in one compact drive. All drives conform with the following safety standards: UL, cUL and CE.

Panel mounted models are available for your bypass applications.

GE Fuji Drives packaged drive products are rugged, full-featured, and easily adaptable to a variety of applications. They're available when you need them and backed by our highest standards of engineering support and service.

At GE Fuji Drives, our goal is to produce quality drive products at competitive prices that maximize our customers' efficiency and satisfaction.



Intelligent back lit display keypad with: operation, diagnostics, copy function, selectable for six languages.





Environmental Conditions	<i>Installation Location</i>	NEMA 1 and 12: Intended for indoor use only, less than 1000 meters (3300ft.) elevation, not in contact with corrosive gas, oil mist, dust or direct sunlight. NEMA 4: Intended for use indoors or outdoors to protect the enclosed equipment against splashing water, seepage of water, falling or hose directed water and severe external condensation. Installation should be less than 1000 meters (3300ft.) elevation, not in contact with corrosive gas, oil mist, dust or direct sunlight.
	<i>Ambient Temperature</i>	-10 to 50° C (ratings up to 30 Hp requires ventilating covers be removed over 40°C).
	<i>Ambient Humidity</i>	5 to 95% (non-condensing)
	<i>Vibration</i>	3mm peak from 2 to 9 Hz, 9.8m/s ² from 9 to 20 Hz, 2m/s ² from 20-55 Hz, 1m/s ² from 55 to 200 Hz
	<i>Enclosure Type</i>	NEMA 1 standard; NEMA 4 and 12 available
	<i>Communication Interface</i>	RS485 RTU standard
Input	<i>Power System</i>	200-230 and 380-480 VAC +10% to -15%, 50/60 Hz +5% to -5%
Output	<i>Power Supply Control System</i>	Sinusoidal PWM with dynamic torque vector control
	<i>Frequency Control Range</i>	.1 to 120 Hz
	<i>Rated Voltage</i>	230 VAC: 3 phase, 200V, 220V, 230V / 60 Hz 460 VAC: 3 phase, 380V, 400V, 415V / 50 Hz. 380V, 440V, 460V / 60 Hz
	<i>Carrier Frequency</i>	0.75 to 15 KHz (up to 30 Hp), 0.75 to 10 KHz (40 to 100 Hp) 0.75 to 6 KHz (125 Hp and above)
Control	<i>Frequency Fluctuation</i>	Digital setting: +/- 0.01% of max. frequency (@-10° C to 50° C) Analog setting: +/- 0.2% of max. frequency (@ 25° C +/- 10° C)
	<i>Frequency Resolution</i>	Digital setting: 0.01 Hz for frequency up to 99.9 Hz (0.1 Hz for frequency > 100 Hz) Analog setting: 1/3000 of max. frequency
	<i>Torque Boost</i>	Manual setting code: Variable torque load: 0.1 to 1.9 Automatic setting code: 0.0
	<i>Accel/Decel Settings</i>	0.01 to 3600 sec. independently adjustable, linear, non-linear & S-curve characteristic
	<i>DC Braking</i>	Frequency activation Hz= >0.1 to 60 Hz, operating time; 0.1 to 30 sec. Voltage 0 to 80%
	<i>Torque Vector Control</i>	Optimizes drive operation
	<i>Select Standard Functions</i>	Slip compensation, torque limit control, switch from line to inverter, restart after instantaneous power failure, 3 jump frequencies, bias frequency, pattern operation & energy saving selection
<i>Momentary Voltage Dip</i>	Drive can operate for 15 millisecond, with 85% of full load applied.	
Operation	<i>Frequency Setting Input</i>	Potentiometer or voltage input: 0 to 10 VDC, adjusts to 5 VDC Process follower input: 4 to 20 mA DC (external), adjusts to 10 mA
	<i>Input Signal (contacts)</i>	Forward-Reverse, self-hold selection, 15 preset speed levels, acceleration/deceleration time selection, coast to stop, external alarm input & alarm reset input. Sink/Source logic selectable.
	<i>Output Signal</i>	2 Relay outputs: Fault alarm, selectable from 32 parameters: SPDT, 250 VAC, .3A Inductive (CE Mark - 48 VDC, .5A)
	<i>Protection</i>	Current limit, instantaneous overcurrent, torque limit, overload, overvoltage incoming transients, undervoltage & overheating, short circuit & ground fault for output, motor & dynamic braking overheating, stall protection & setup error
Indication	<i>Keypad Panel (LED)</i>	Output frequency, current, voltage, torque, motor RPM, line speed & machine speed, fault code
	<i>Keypad Menu (LCD)</i>	Nine menu selections from DATA SET, DATA CHECK, OPR MNTR, I/O CHECK, MAINTENANCE, LOAD FCTR, ALM INF, ALM CAUSE, DATA COPY with back lit display.
Options & Accessories	Keypad extension cable, Dynamic braking, AC Line Reactors, PWM output filter, Analog I/O, Digital Tachometer, Relay output, multiple network options such as LonWorks for building automation.	

AF-300 P11 is a trademark of General Electric Company.



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