ADJUSTABLE FREQUENCY AC DRIVES

NEW™

NFX9000 Series Starts at £129

1 YEAR WARRANTY

- **V/Hz Control: Provides 150% Starting Torque and Advanced Low Speed Control**
- **Easy to Understand Keypad**
- **RS485 Serial Communication Port**
- **Single-Phase or 3-Phase Input Capability on 115/240 Vac Rated Units**

Cutler-Hammer™ NFX9000 adjustable frequency AC Drives from Eaton's electrical business are designed to provide adjustable speed control of 3-phase motors. These microprocessor-based drives have standard features that can be programmed to tailor the drive's performance to suit a wide variety of application requirements. The NFX9000 volts-per-hertz product line utilises a 32-bit microprocessor and insulated gate bipolar transistor (IGBTs) which provides quiet motor operation, high motor efficiency and smooth low speed performance. The size and simplicity of the NFX9000 make it ideal for hassle-free installation where size is a primary concern.

Models rated at 240V, single- or 3-phase, 50/60 Hz are available in sizes ranging from 180W to 1.5kW. Models rated at 115V, single-phase, 50/60 Hz are available in the180 to 370W size range. The standard drive includes a digital display as well as operating and programming keys on a removable keypad. The display provides drive monitoring and diagnostic information. The keys are utilised for digital adjustment and programming of the drive plus operator control. Separate terminal blocks for control and power wiring are provided for customer connections. The drives feature RS485 serial communications.

Manufactured by Eaton for OMEGA

NFXF50A0-1, £129, shown smaller than actual size.

SPECIFICATIONS

OUTPUT RATINGS

Power: 90 to 132V, 180 to 370W, 200 to 240V, 180W to 1.5kW
Frequency Range: 0.1 to 400 Hz
Overload Rating: 150% for 60 sec
Frequency Resolution: Digital, 0.1 Hz
Frequency Accuracy:
Digital: ± 0.01% of max frequency
Analogue: ± 0.2% of max frequency
Undervoltage Carryover Limit: 0.3 to 25 sec

MOTOR PERFORMANCE

Motor Control: V/Hz
Constant Torque: Standard
Speed Regulation: 0.5% of base speed

INPUT POWER

Voltage: 50/60 Hz, ±3 Hz
100 to 120V: -10% +10%/1-phase
200 to 240V: -10% +5%/1-phase
200 to 240V: -10% +5%/3-phase
Displacement Power Factor: Better than 0.95
Efficiency: Typically greater than 95%

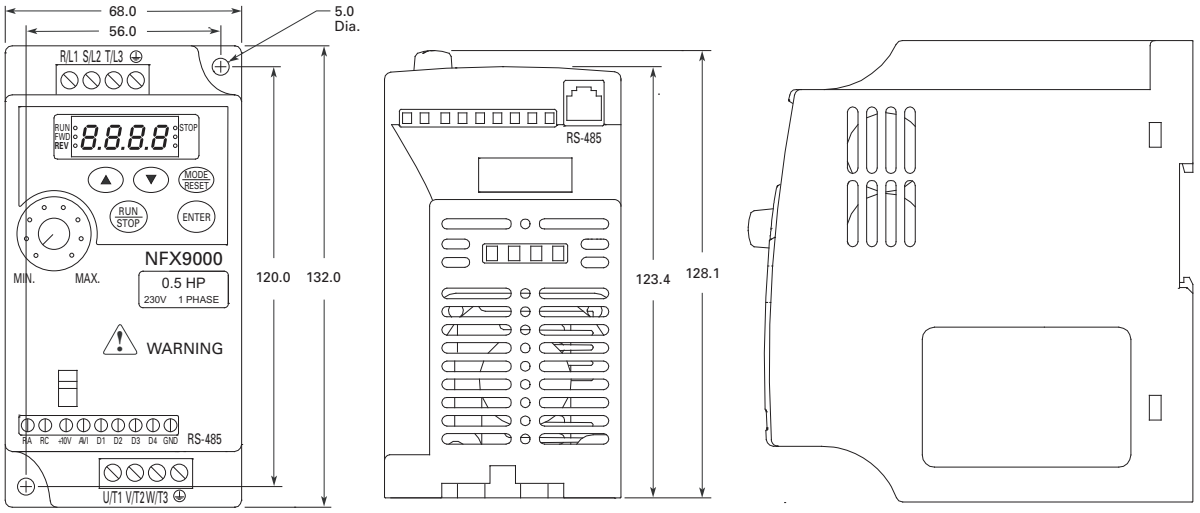
DESIGN TYPE

Microprocessor: 32-bit
Converter Type: Diode
Inverter Type: Insulated Gate Bipolar Transistor
Waveform: PWM V/Hz

ENVIRONMENT

Operating Temperature: -10 to 40°C
Humidity: 20 to 90% non-condensing
Maximum Elevation: 1000 m

Dimensions: mm



CODES AND STANDARDS

IEEE, NEC: Design standards, UL listed, cUL listed, **Standard Enclosure:** Protected chassis (IP20)

PROTECTIVE FEATURES

Ground Fault: Standard
Overload Protection: Standard
Overcurrent: Standard
Overvoltage: Standard
Undervoltage: Standard
Overtemperature: Standard
Overload Limit: Standard

SET UP ADJUSTMENTS, PERFORMANCE FEATURES, OPERATOR CONTROL AND EXTERNAL INTERFACE

Keypad:
Alphanumeric Display: Standard, 1 x 4 character
Digital Indications: RUN/STOP and FORWARD/REVERSE
Diagnostics: Last 3 trips with cause
LED Status Indicators: 4; RUN/STOP and FORWARD/REVERSE
Operator Functions: RUN/STOP, speed control (digital or potentiometer), RESET, MODE keys and ENTER

I/O TERMINAL BLOCK

Analogue Inputs: 1 Input, 0 to 10 Vdc, 4 to 20 mA
Potentiometre: 1 to 2K
Analogue Voltage: Nominal 10 Vdc, 10K input impedance
Analogue Current: Nominal 4 to 20 mA, 250
Digital Inputs: 4 programmable inputs
Digital Outputs: 1 form A relay contact

PROGRAMMABLE PARAMETERS

Out of the Box: Factory settings loaded for quick start-up
Acceleration and Deceleration: 2 separately, adjustable linear or S curve times, 0.1 to 600 sec
DC Injection Braking:
External Fault: Terminal input
Jog: Terminal input
Fault Reset: STOP/RESET or terminal input
I/O: NO/NC selectable
Jump Frequencies: 3, with adjustable width
Parameter Security: Programmable software lock
Preset Speeds: 2 preset speeds
Reversing: Keypad or terminal
Speed Setting: Keypad, terminal or pot
RUN/STOP Control: Keypad or terminal
Stop Modes: Decel, coast or DC injection

RELIABILITY

Pretested Components: Standard
Surface Mount Technology: Standard, PCBs
Computerised Testing: Standard
Final Test with Full Load: Standard
Eaton's Cutler-Hammer Engineering Systems and Service: National network of AF drive specialist

To Order *(Specify Model Number)*

STOCKED FOR IMMEDIATE DELIVERY!

MODEL NO.	PRICE	DESCRIPTION	INPUT AMPERE	AMP RATING
115 VOLT				
NFXF50A0-1	**£129**	370 W single phase, watt loss: 20 W	9.0	2.50
230 VOLT				
NFXF25A0-2	**£147**	Micro drive 185 W 230 Vac V/Hz (open chassis), watt loss: 20 W	4.9	1.6
NFX001A0-2	**201**	Micro drive 745 W 230 Vac V/Hz (open chassis), watt loss: 38 W	9.7	4.2
NFX002A0-2	**228**	Micro drive 1490 W 230 Vac V/Hz (open chasis), 3 ph, watt loss: 75 W	9.0	7.0

Comes with operator's manual.
Ordering Example: NFXF50A0-1,** 370 W single phase, 20 W loss, **£129.

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