

3U081

Part Number: 4R0-603555-10X

ABOUT 3U081



This single-axis, Direct PWM amplifier is designed to fit into a standard 3U UMAC rack. It is intended for driving AC induction, permanent magnet brushless, linear, and brushed DC motors. It has a current rating of 8.0 A Continuous/16.0 A Peak.

This drive will operate directly off of the power mains wired to the backplane, typically 110 VAC or 230 VAC, three phase or single phase with appropriate derating. An external power supply of +24 VDC @1A (regulated or unregulated) is required for logic power allowing the user to control motor power separately from control logic power. The amplifiers are interfaced to a PMAC controller via ACC-24E2, ACC-24E2M, ACC-24E3 (Power PMAC only), ACC-8F or ACC-8FS.

These drive amplifiers are designed to receive logic-level direct digital PWM motor voltage command from the PMAC controller and convert them to high voltage for motor control. They provide the power conversion, motor current sense feedback to the PMAC controller, and comprehensive system protection. Each drive also accepts motor thermal overload sensors for drive shut down on motor over temperature. The host controller provides all other motor control functions.

FEATURES

HARDWARE FEATURES

Amplifier Ratings

- Output Current Ratings

- 8.0 A Continuous/16.0 A Peak
- Output Power Ratings
- 1.912 kW (2.564 HP)

Motor Types Supported

- DC Brushless (Permanent Magnet Synchronous)
- AC Induction

Other Hardware Features

- 1 amplifier channel
- Simple wiring
- High power density
- Extensive fault protection
- Locking motor connectors
- Closed loop hall effect current sensors
- Direct line connection with Soft Start
- Separate logic power and motor power
- 3U UMAC Rack format for small size and easy support
- Full isolation for PMAC and user interfaces
- Direct PWM control for best performance and cost
- Shunt Regulator (requires external Resistor) for Bus power control
- Auto ranging Shunt Regulator automatically selects for 115 or 230 VAC operation

OPTIONS

Spare Board

- 3U081 (SPARE) - 3U Amplifier, Single Axis 8/16 RMS Amps Cont/Peak, 3 Phase (Spare Only)

ACCESSORY

Integrated Rack/Backplane/Power Supply

- ACC-D1 - 10 1/2 Slot 3U Rack for 3U Amplifiers

- ACC-D2 - 15 Slot 3U Rack for 3U Amplifiers

- ACC-D3 - 21 Slot 3U Rack for 3U Amplifiers

Cable Accessories

- CABKIT3C - Cable Kit for 3U Servo Drives
- CABPWM-1 - 600 mm (24 inches long) PWM Cable for 1-Axis
- CABPWM-2 - 900mm (36 inches long) PWM Cable for 1-Axis
- CABPWM-3 - 1.5 m (60 inches long) PWM Cable for 1-Axis
- CABPWM-4 - 1.8m (72 inches long) PWM Cable for 1-Axis
- CABPWM-5 - 2.1 m (84 inches long) PWM Cable for 1-Axis
- CABPWM-6 - 3.6 m (144 inches long) PWM Cable for 1-Axis
- GEO Drive Motor Power Cables - 14AWG Motor Power Cables

Connector Kits

- CONKIT3C - 3U Amplifier Connector Kit

Regenerative Resistors

- GAR78 - 300W 78 OHM Regenerative Resistor with Thermostat Protection

SOFTWARE

Development Software

PMAC Executive Pro2 Suite

CNC Software

PMAC-NC Pro2 Runtime

Tools and Libraries

Power PMAC Communication library

Tools and Libraries

PMAC HMI Pro2 Designer

CNC Software

PMAC-NC Pro2 Designer

Tools and Libraries

PMAC HMI Pro2 Runtime

Development Software

Power PMAC IDE

MANUALS

Geo 3U Servo Drive Amplifier - User Reference Manual