



GEMINI CONTROLS

SERIES 2200 SOLID STATE CONTROLS



250 AMPERE MODEL



50 AND 100 AMPERE MODELS

STANDARD FEATURES

- HIGH PERFORMANCE, ADVANCED CIRCUIT DESIGN
- FULL WAVE, SIX THYRISTOR BRIDGE
- dv/dt PROTECTION
- FAN FAILURE PROTECTION
- DIGITAL DESIGN, NEEDS NO ADJUSTMENTS NOR SYNCHRONIZING TRANSFORMERS
- INSENSITIVE TO PHASE ROTATION
- INNER CURRENT LOOP REGULATOR
- REGULATED REFERENCE VOLTAGE
- TWO QUADRANT OPERATION
- EASILY REPLACED CIRCUIT BOARDS AND THYRISTOR MODULES
- CONSERVATIVELY RATED FOR RELIABILITY
- ELECTRICAL ISOLATION BETWEEN POWER AND CONTROL CIRCUITS
- DESIGNED TO MEET UL AND NEMA STANDARDS

THREE PHASE — 120 to 480 VOLTS TWO QUADRANT

The SERIES 2200 SOLID STATE POWER CONVERTERS are three phase, full wave, AC to DC phase-angle controlled thyristor converters for DC Motor Drives, Power Supplies and similar applications.

A six-thyristor bridge with digital firing provides two quadrant operation (I and IV or II and III) as standard, permitting use for slip recovery of a Wound Rotor Motor or for a DC Motor Brake. A built-in Current Regulator provides torque control of a DC Motor as a Helper or Tension Regulated Drive, or it can be used as the Inner Current Loop of a Speed or Position Regulated Drive.

Digital techniques provide balanced firing signals independent of phase rotation. Six isolated outputs provide hard firing with high noise immunity to the thyristors. No adjustments are required.

A modular, field-proven mounting arrangement provides reliable connection to printed circuit boards, but allows easy removal without disturbing permanent wiring. Access to terminals and comprehensive Troubleshooting Manual make field service easy. Thyristors and thyristor modules can be replaced without special tools.

When used with the companion SERIES 200 SOLID STATE CONTROL MODULES, virtually any Application Modification is available for precise control of Speed, Torque, Position, Tension and many other process variables (see Bulletin SB-200).

SPECIFICATIONS

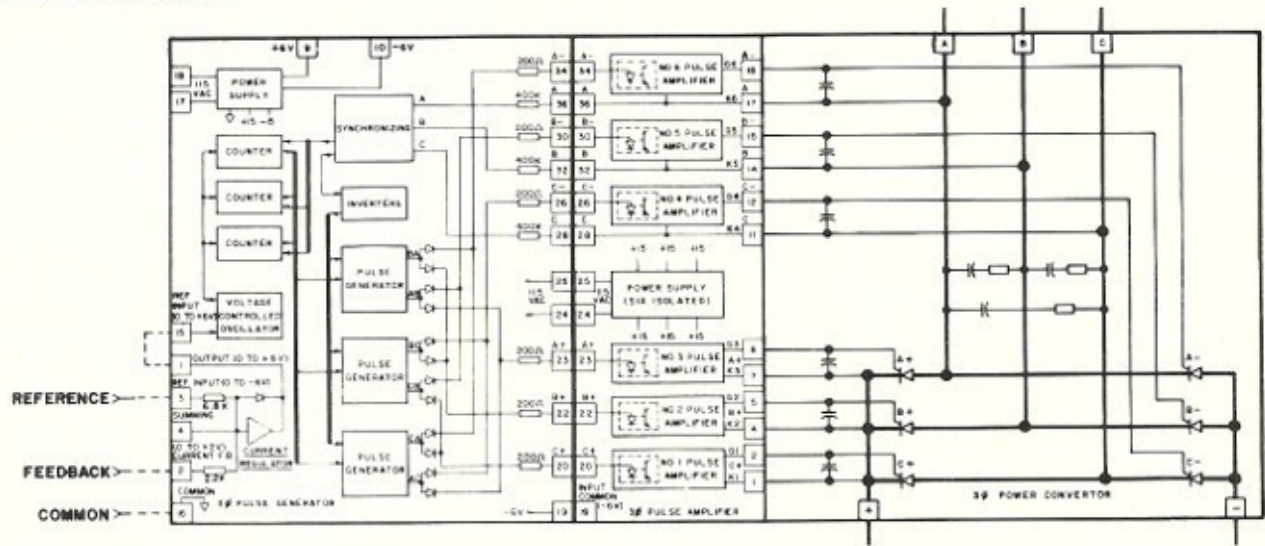
- ALTITUDE: to 3300 feet above sea level (unless derated)
- TEMPERATURE: 0° to 40°C (32° to 104°F) (50°C in cabinet)
- AC INPUT: Three phase, 50/60 HZ nominal
CONTROL: 120 volts \pm 10%
POWER: 120 to 480 volts (to 240 volts on 50 ampere model)
- DC OUTPUT: Voltage: to 130% of AC Input
Current: 50, 100 or 250 amperes
- HIGHER OUTPUTS to 3200 amperes consult factory
- SERVICE FACTOR: 1.0, continuous duty
150% overload for 1 minute
- EFFICIENCY: 98% at full rated output



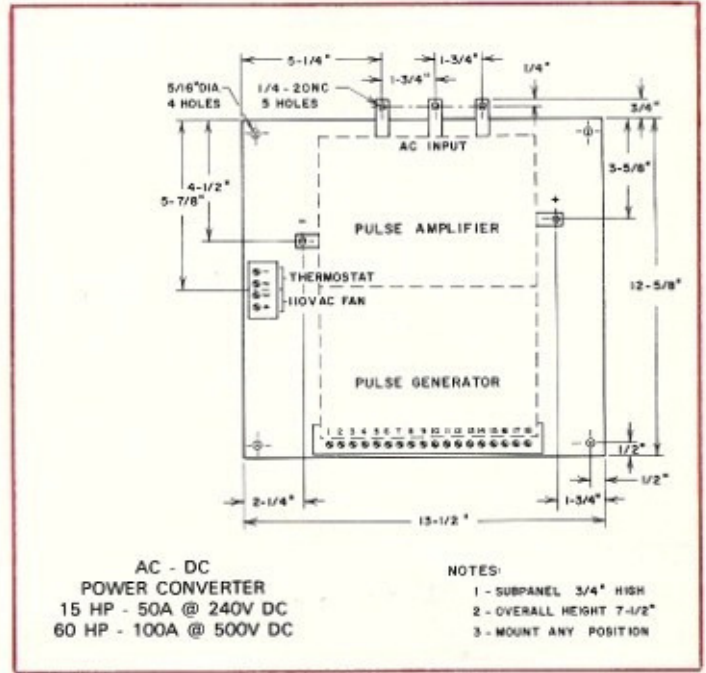
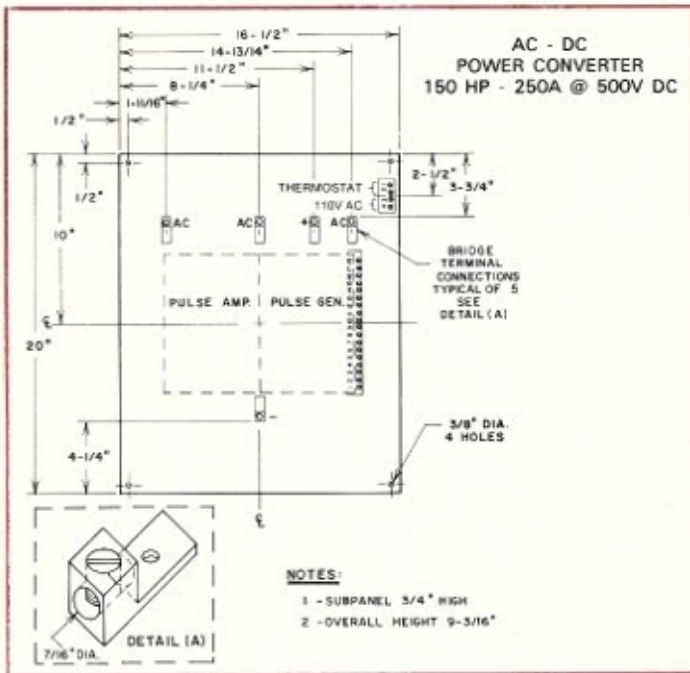
SERIES 2200 POWER CONVERTERS

SIMPLIFIED SCHEMATIC

3Ø AC INPUT (120 to 480 volts)



DC OUTPUT (0 to 135% of AC Input)



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