

GP5 General Purpose AC Drive

Ratings:

- 0.75 to 100 HP at 208 Vac
- 0.75 to 125 HP at 230 Vac
- 0.75 to 500 HP at 460 Vac



- CE Marking (73 / 23 / EEC / 460 V only)
- Multi-Line, LCD, "English" Keypad
- PID Sleep Function



The GP5 is a proven, general purpose V/Hz type AC drive; suitable for most industrial applications. It's heavy duty overload characteristics (150% / 1 minute) and simple parameter set, make it a good choice for most projects. A wide variety of serial communication options enhance the unit's capabilities in more demanding applications.

Approvals:

- UL, cUL, CE

Design:

- Analog monitor output: 0 to 10 Vdc
- Carrier frequency: selectable to 15 kHz
- DC bus reactor included:
 - 30 to 125 HP at 230 Vac
 - 30 to 250 HP at 460 Vac
- Keypad operator controls
- LCD display: English alpha/numeric
2 lines x 16 character
- MTBF: exceeds 28 years
- Multi-speed settings
- NEMA 1 enclosed or protected chassis
- Programmable contacts, one Form C and one normally open
- Remote speed reference:
 - 0 to 10 Vdc or 4 to 20 mA
- RS-232 communications port
- Setpoint (PID) control with inverse input
- Signal follower: bias and gain
- Surface mount devices
- Timer function: contact-initiated
- 24 Vdc control logic
- 32-bit microprocessor logic

Operating Conditions:

- Altitude: to 3300 ft; higher by derating
- Ambient service temperature:
 - 10°C to 40°C (104°F) NEMA 1
 - 45°C (113°F) protected chassis
- Humidity: to 95% non-condensing
- Input voltage: +10% / -15%
 - 200 to 230 Vac
 - 380 to 460 Vac
- Input frequency: 50/60 Hz ± 5%
- 3-phase, 3-wire, phase sequence insensitive

Options:

- Current monitor output card
- Dynamic braking resistors
- Many control interface devices
- Presssys to electrical transducer
- Rapidpak pre-engineered industrial solutions
- Remote operator station
- Serial communications:
 - Devicenet
 - Echelon LonWorks
 - InterBus-S
 - Metasys (N2) Interface
 - Mini-Smart Card
 - Profibus
 - RS-232C to RS-485
- Safflink
- 12-pulse rectification with separate input transformer:
 - 30 to 125 HP at 230 Vac
 - 30 to 250 HP at 460 Vac

Protection:

- Current and torque limit
- Current limited stall prevention
- DC bus CHARGE indicator
- Electronic motor overload
- Fault circuit: overcurrent, overvoltage and overtemperature
- Ground fault protection
- Optically-isolated controls
- Over torque protection
- Phase-to-phase / phase-to-neutral short circuit protection
- Synchronized start into rotating motor via speed search
- Under torque protection

Performance:

- Adjustable accel/decel:
 - 0.1 to 3600 sec (2 each)
- Controlled speed range: 40:1
- Critical frequency rejection:
 - 2 selectable, adjustable bands
- DC injection braking: ramp or coast to stop, adjustable, current limited
- Displacement power factor: 0.98
- Drive efficiency: 96 to 98%
- Electronic reversing
- Energy saving control: improves motor efficiency
- Frequency regulation:
 - 0.01% digital (-10° to 40°C)
 - 0.1% analog (15° to 35°C)
- Frequency resolution:
 - 0.01 Hz with digital reference
 - 0.06 Hz with analog reference
- Inertia ride-thru
- Jog forward and reverse
- Output frequency:
 - 0.1 to 400 Hz
- Overload capacity:
 - 150% for 60 sec (200% peak)
- Power loss ride-thru: 2 sec
- Programmable auto restart after momentary power loss
- Selectable auto restart after momentary power loss
- Slip compensation
- Starting torque:
 - 150%
- Torque boost: full range, auto
- Torque limiting circuit:
 - 30 to 180%