

Specifications and Features for J7 Drive

The J7 drive is a general purpose drive for use with squirrel cage induction motors. This PWM design provides low motor noise and high starting torque. The current overload rating is 150% for 60 seconds. V/f control makes this drive suitable for most general applications.

The J7 is feature-packed, low cost and compact. The digital operator includes a 3-digit LED status display and an analog speed potentiometer. Digital programming covers 79 parameters suitable for many applications. The four standard multifunction inputs can be programmed to allow for 9 preset speeds. The J7 also has an analog input, a multifunction output, and an analog output as standard.

DriveWizard is one of the outstanding options for the drive. This software enables upload, download, and monitoring of drive parameters.

An optional RS-485 Modbus RTU serial communication port is available with up to 32 nodes on a single network.

The J7 is ideal for applications such as conveyors, grinders, centrifuges, pumps, fans and blowers used in material handling, packaging, food processing, and commercial laundry.

The J7 is available in protected chassis models from 1/8 to 5 HP at 230 VAC and 1/2 to 5 HP at 460 VAC. (This J7 was previously named GPD 305/J7)

J7 is an ideal choice whenever excellent performance, low cost, and small size are required.

Performance Features

- Ratings:
1/8 to 5 HP at 230 VAC,
1/2 to 5 HP at 460 VAC
- Constant torque overload rating:
150% for 1 min. (250% peak)
- DC injection braking, ramp to stop
- Electronic reversing
- Adjustable accel/decel:
0.1 to 999 seconds
- Controlled speed range: 40:1
- Speed Regulation:
± 0.5 to 1% with slip compensation
- Drive efficiency: 95%
- Displacement power factor: 0.98

Design Features

- 16-bit microprocessor logic
- Digital keypad operator with analog speed pot
- LED status display
- Copy Keypad Function
- Remote Mount Keypad Capability
- 4 multifunction digital inputs
- Programmable form C output contact for customer use:
1A at 250 VAC or 30 VDC
- 24 VDC control logic compatible with sourcing or sinking outputs (PNP or NPN)
- Carrier frequency: 10 kHz maximum
- 8 multi-speed settings plus jog speed
- Remote speed reference:
0-10 VDC (20 kohms) or

Performance Features

- Output frequency: 1.5 to 400 Hz
- Frequency resolution:
0.01 Hz with digital reference
0.06 / 60 Hz with analog reference
- Frequency accuracy:
0.01% with digital command
0.5% with analog command
- Volts / hertz ratio: infinitely adjustable pattern
- DC Injection braking: adjustable amplitude, duration, current limited
- Torque boost: full range, auto
- Power loss ride-thru: 0.5 sec.
- Speed search
- Auto restart
- 2 Critical frequency rejection settings
- Slip compensation

Protective Features

- Current limit, stall prevention during accel, decel, and run
- Motor and drive overload
- Over voltage
- Instantaneous over current
- Short circuit
- Under voltage
- Heatsink overheat
- Ground fault protection
- Over torque

4-20 mA (250 ohms)

Design Features

- Signal follower: bias and gain
- Analog monitor output:
0-10 VDC proportional to output frequency or output current
- 79 parameters
- Cooling fan controlled by drive run/stop
- UL and cUL listed; CE approved
- UL recognized electronic overload
- MTBF: exceeds 28 years
- Protected chassis

Service Conditions

- Ambient service temperature:
-10 to 50 °C (14 to 122 °F)
- Ambient storage temperature:
-20 to 60 °C (-4 to 140 °F)
- Humidity: to 95% non-condensing
- Altitude: to 3280 ft; higher by derating
- Service factor: 1.0
- Input voltage: -15% to +10%
200 to 230 VAC, 380 to 460 VAC
- Input frequency: +/-5%; 50/60 Hz
- Phase sequence insensitive