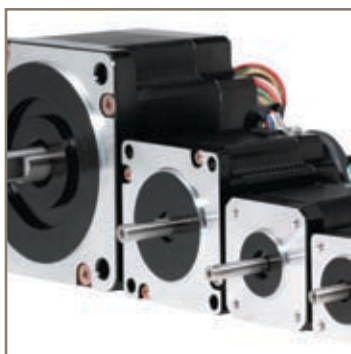




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Stepper Drive Systems

OFS350-DRI & OFS350-OSC Step Motor Drives



ENGINEERING YOUR SUCCESS.

OFS350-DRI

Step Motor Drive

Microstepping, 3.5 amps, 42 VDC

External Step/Dir Control Required



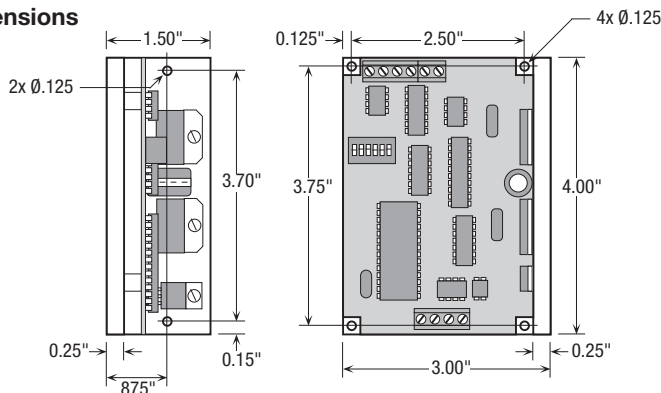
Description

The OFS350-DRI is a microstepping drive offering 400 to 12,800 steps per revolution, a step phase sequencer with MOSFET three-state switching amplifiers, and optoisolated circuits. The drive includes an automatic feature to lower motor current by 50% whenever the motor is left at rest for more than one second. (This feature can be disabled.) There is also a switch-selectable self test that rotates the motor one-half a revolution in each direction at 100 steps per second. The amplifier regulates motor current by chopping at a constant, inaudible frequency. Phase current is selected from 32 levels by a DIP switch, which also controls the microstepping resolution.

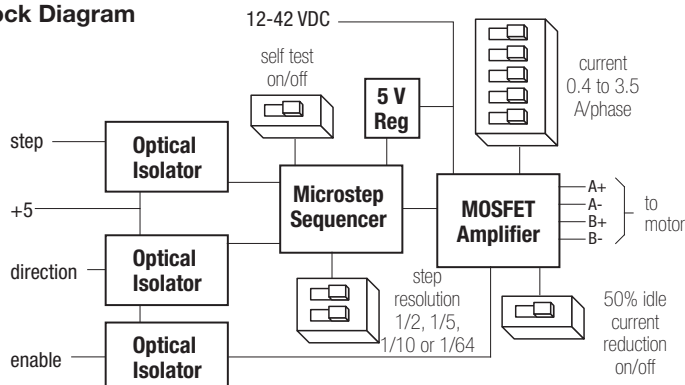
Features

- **DC bus voltage 12-42 VDC motor supply (including ripple)**
- **Switch selectable currents from 0.4–3.5 amps/phase motor current**
- **Switch selectable Step resolutions: 400, 1000, 2000, 12800 steps/rev.**
- **Switch selectable idle current reduction, 0 or 50%**
- **Optically isolated 5 VDC inputs for step, direction and enable**
- **Enable input to turn off current to the motor**
- **Self test, switch selectable**
- **140 watts of usable power**
- **Screw terminal connectors.**
- **MOSFET, dual H-bridge, inaudible PWM amplifier**
- **3 state, pulse width modulated current control, switching at 20–30 KHz.**
- **Drives 4, 6 or 8 lead size 11, 14, 17, 23 or 34 step motors**
- **CE compliant**

Dimensions



Block Diagram



Complement

Step Motors

Size 11

LV111-02-FL

LV113-02-FL

Size 17

LV171-02-FL

LV173-02-FL

Size 23

LV231-02-FL

LV233-02-FL

Size 34

LV341-02-FL



OFS350-OSC

Step Motor Drive with Digital Oscillator
Microstepping, 3.5 amps, 42 VDC
On-Board Control Included



Description

The OFS350-OSC is a microstepping drive offering 12,800 steps per revolution, a step phase sequencer with MOSFET three-state switching amplifiers, and optoisolated circuits. The drive includes five optically isolated inputs, external speed control, tach output, and internal pots for accel/decel rate along with high- and low-speed range selection. The amplifier regulates motor current by chopping at a constant, inaudible frequency. Phase current is selected from 32 levels by a DIP switch, which also controls the microstepping resolution.

Features

- DC bus voltage 12-42 VDC motor supply (including ripple)
- Switch selectable currents from 0.4-3.5 amps/ phase motor current
- Microstepping at 12,800 steps/rev
- Switch selectable idle current reduction, 0 or 50%
- Optically isolated 5-12 VDC inputs
- Run input, directs drive to run or stop
- Direction input, sets direction of rotation
- Speed input, selects high speed (25rps) or low speed (5rps) range
- Enable input, removes all motor current when active
- Wiper input, 0-5V analog for external speed signal, pot or joystick
- Tach Output, 5-24V optically isolated, 100 pulses per revolution
- Three internal trimmer pots, accel/decel (1-250 rev/sec/sec, Low speed (0-5 rps), High speed (0-25 rps)
- External Speed, Pot or Joystick 3 terminal type, 1k-10k ohms
- 140 watts of usable power
- Screw terminal connectors
- MOSFET, dual H-bridge, inaudible PWM amplifier
- 3 state, pulse width modulated current control, switching at 20-30 KHz
- Drives 4, 6 or 8 lead size 11, 14, 17, 23 or 34 step motors
- CE compliant

ary Products

Power Supply:

STP-32PRK4

120/240VAC input

40VDC output (unloaded)

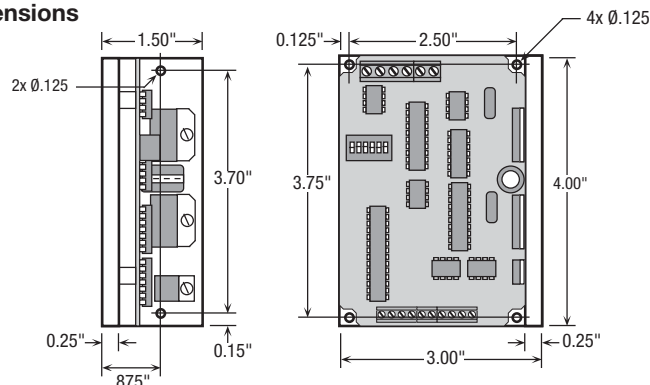
35VDC output (loaded)

5VDC output for logic

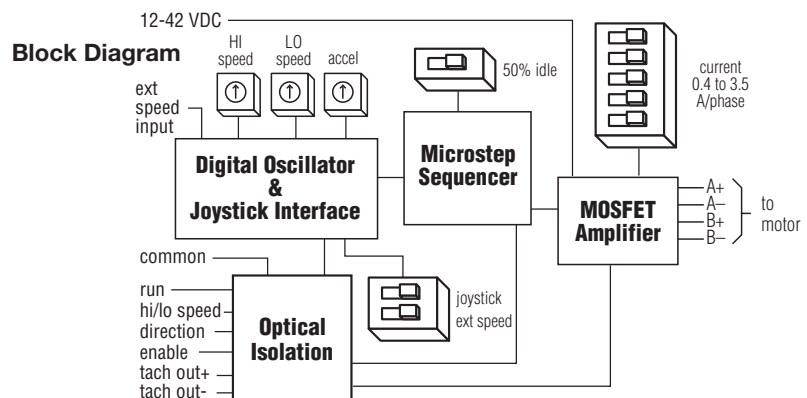
Dimensions: 4 x 7 x 3.25"



Dimensions



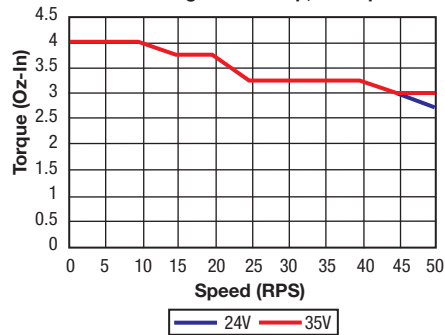
Block Diagram



OFS350-DRI & OFS350-OSC Speed Torque Curves

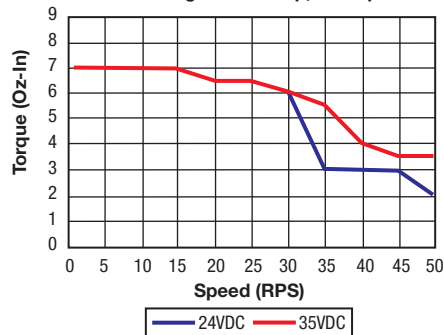
LV111 with OFS350

Drive Setting: 1/64th step, 1.3 A/phase



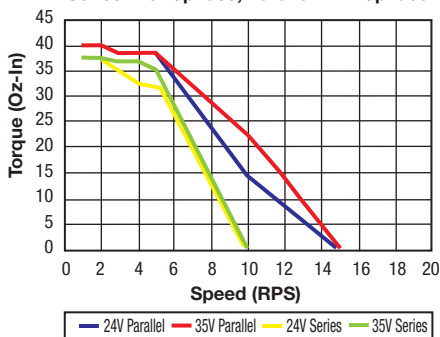
LV113 with OFS350

Drive Setting: 1/64th step, 1.3 A/phase



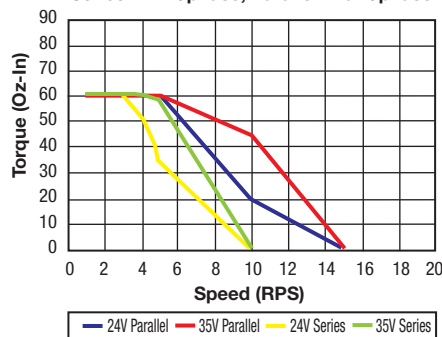
LV171 with OFS350

Drive Setting: 1/64th step,
Series: 1.3 A/phase, Parallel: 2.2 A/phase



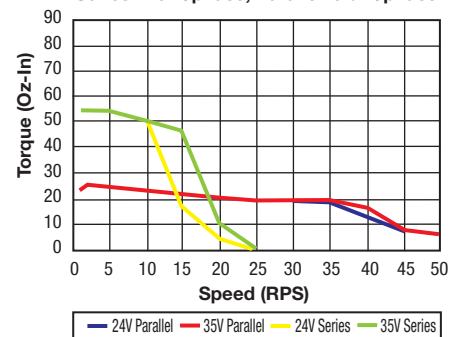
LV173 with OFS350

Drive Setting: 1/64th step,
Series: 1.2 A/phase, Parallel: 2.5 A/phase



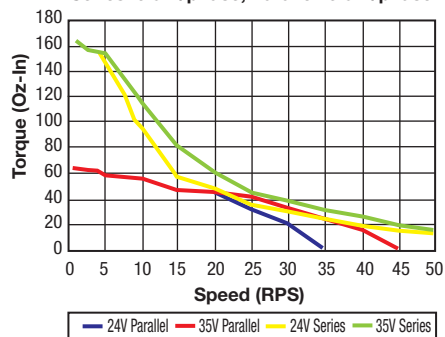
LV231 with OFS350

Drive Setting: 1/64th step,
Series: 2.8 A/phase, Parallel: 3.5 A/phase



LV233 with OFS350

Drive Setting: 1/64th step,
Series: 3.5 A/phase, Parallel: 3.5 A/phase



LV341 with OFS350

Drive Setting: 1/64th step,
Series: 3.5 A/phase, Parallel: 3.5 A/phase

