

# Falcon 150

## Brushless Permanent Magnet Motor Drive

As part of Nidec's diverse lineup of Ultra Low Voltage drives, the Falcon 150 offers additional flexibility to drive larger motors. Multiple communication interfaces allow the Falcon 150 to be a versatile solution that provides up to 150A of peak current, while remaining compatible with a wide variety of brushless motors.

**Input Voltage:** 20 Vdc – 90 Vdc

**Continuous Current:** Amps

**Peak Current:** Up to 150 Amps

**Motor Speed:** Up to 10,000 rpm

**Warranty:** One year limited warranty



### Motor Options

- Sinusoidal or trapezoidal commutation
- Designed for Brushless Permanent Magnet motors
- Compatible with 2,4,6,8,10,12, or 14 pole motors
- Hall effect sensors
- Incremental encoder - A/B with index
- Brake option (open drain FET, 24V 1.0A output)
- Dynamic braking/chopper resistor support

### Communication Interfaces and I/O

- CANopen - DS301 and DS402
- Digital I/O: 3 inputs/3 outputs (5V non-isolated)
- Analog I/O: 1 single ended input (0-5V)
- STO: 2 inputs/1 output (isolated)

### Environment Ratings

- Storage: -40°C to 85°C
- Operating temperature: -30°C to 55°C
- Withstands 95% relative humidity (non-condensing)

### Agency Approvals

- IEC/UL 618000-5-1
- IEC/UL 618000-5-2

### Safety Features

- Safe torque off (STO) - PLd/SIL 3
- Reverse polarity protection
- Internal thermal protection
- External thermocouple connection

### Operating Modes

- Homing
- Closed loop speed - Profile velocity, velocity
- Closed loop current - Profile torque
- Closed loop position - Profile position, position

### Dimensions and Weight

- Length: 105 mm
- Width: 145 mm
- Height: 57.15 mm
- Weight: 700 g (24.7 oz) [1.5 lb]

### Programming and Indicators

- Field Programmable
- Power indicator - red
- Status indicator – green
- STO status - white
- Nidec Motion Control Studio - setup tool