

Osprey 40

Brushless Permanent Magnet Motor Drive



As part of Nidec's diverse lineup of Ultra Low Voltage drives, the Osprey 40 features an innovative stacked PCB design. This unique layout optimizes the board for a smaller footprint without sacrificing functionality.

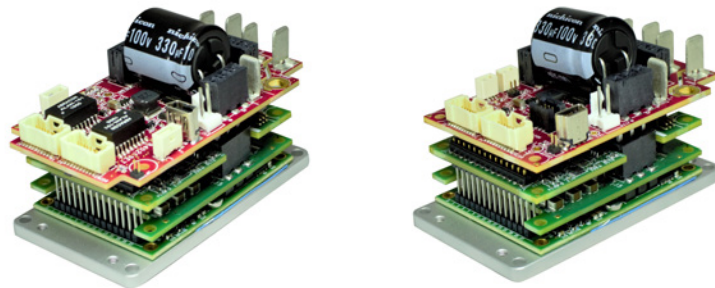
Input Voltage: 10 Vdc – 55 Vdc

Continuous Current: 20 Amps

Peak Current: Up to 40 Amps

Motor Speed: Up to 10,000 rpm

Warranty: One year limited warranty



Motor Options

- Trapezoidal or sinusoidal commutation
- Designed for Brushless Permanent Magnet motors
- Compatible with 4, 6, 8, 10, 12, or 14 pole motors
- Multiple I/O interface configurations
- Hall effect sensors
- Incremental A/B encoder with index
- Brake option (open drain FET, 24V 1.0A output)

Communication Interfaces and I/O

- CANopen - DS301 and DS402
- 5V supply output: 150mA
- PWM
- Digital I/O: 3 inputs/3 outputs (5V non-isolated)
- Analog I/O: 1 single ended input (0-5V)
- Dynamic braking/chopper resistor support

Environment Ratings

- Storage: -40°C to 85°C
- Operating temperature: -30°C to 50°C
- Withstands 95% relative humidity (non-condensing)

Agency Approvals

- IEC/UL 61800-5-1
- IEC/UL 61800-5-2

Safety Features

- STO - SIL3/PLe
- Overcurrent protection
- Reverse polarity protection (with adapter board)
- Internal thermal protection
- External NTC connection
- i2t protection
- Over speed protection
- Encoder fault protection
- Under/over voltage protection

Operating Modes

- Homing
- Profile velocity
- Velocity
- Profile position
- Position
- Torque

Dimensions and Weight

- Length: 40 mm
- Width: 55 mm
- Height: 38 mm (with interface board)
- Weight: 157g (5.5 oz) [.35 lb]

Programming and Indicators

- Field programmable firmware
- Power indicator
- Status indicator
- Nidec Motion Control Studio - setup and commission tool



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