PACIFIC SCIENTIFIC 6400 MICROSTEPPING DRIVES ARE...

Modular, Functional, and Flexible

Modular
The Pacific Scientific 6000 series high performance microstepper drives are modular to support a broad range of requirements. The modular design assures that you maximize your value. Offered in two power levels, the 6200 and 6400 microsteppers are ideally suited for single or multi-axis applications where space is at a premium.

Functional & Flexible
Each series is designed to be mounted in either a bookshelf or cold plate configuration. This flexibility allows the user to optimize the available space in your panel. Microstep resolution is selected via DIP switches. Microstepping assures smooth low speed operation and optimum system resolution. The 6200 and 6400 resolutions are adjustable up to 20,000 and 51,200 steps per revolution respectively.

Current ranges are DIP switch selectable as well. Idle current reduction is also offered. This provides the ability to reduce motor heating when at idle. It also conserves system energy typically useful when operating with battery back systems. The 6200 drives require a 24-40 VDC input power source. The 6400 drives require a 24-75 VDC power source.

Both packages are available with two standard options: The 6210 and 6410 accept step and direction inputs from a remote indexing source. The 6215 and 6415 include an on-board Oscillator card. These units include 4 built-in potentiometers to adjust acceleration, deceleration low speed and run speed settings. Or you can apply an external voltage source and use the pre-configured input to start and stop the motion.

AGENCY APPROVAL
\[c\text{UL}, \text{ CE}\]

6410 FEATURES

- Single power supply input
- Patented 4-phase Bipolar Chopper Drive for superior current regulation and low ripple current
- Output current adjustable from 0.625 A to 5 A with 3 position dipswitch
- Microstepping provides smooth operation and increased resolution
- Patented Digital electronic Damping™ reduces instability at mid-speed ranges
- Idle current reduction reduces motor heating in many applications
- Selectable step filter rejects noise on step input
- Fault Protection:
  - line-to-line and line-to-neutral shorts
  - Internal power supply under-voltage
  - Bus overvoltage
- Compact size

6415 FEATURES

- Single power supply input
- Patented 4-phase Bipolar Chopper Drive for superior current regulation and low ripple current
- Output current adjustable from 0.625 A to 5 A with 3 position dipswitch
- Microstepping up to 51,200 steps/revolution
- Patented Digital Electronic Damping™ reduces instability at mid-speed ranges
- Idle current reduction reduces motor heating in many applications
- Selectable step filter rejects noise on step input
- Fault Protection:
  - line-to-line and line-to-neutral shorts
  - Internal power supply under-voltage
  - Bus overvoltage
- Compact size
- Low/high speed select input
- On-board multi-turn potentiometers
- External customer potentiometer
- Customer supplied ±10 VDC analog input
- Optional heat sink

DRIVE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>6410</th>
<th>6415</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step Sizes</td>
<td>Binary or Decimal, full to 1/256 or 1/256</td>
<td>Binary or Decimal, full to 1/256 or 1/256</td>
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<tr>
<td>Input Voltage</td>
<td>24-75 VDC</td>
<td>24-75 VDC</td>
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<tr>
<td>Output Current</td>
<td>0.625-7.1 amps, Peak</td>
<td>0.625-7.1 amps, Peak</td>
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<tr>
<td>Interface</td>
<td>Step and Direction</td>
<td>+10 VDC Step/Dir, Discrete Input</td>
</tr>
<tr>
<td>Inputs</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Outputs</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Connectors</td>
<td>Screw Terminal, D Sub</td>
<td>Screw Terminal, D Sub</td>
</tr>
<tr>
<td>Package Size</td>
<td>39.62 x 104.90 x 82.55 mm (1.56 x 4.13 x 3.25 in)</td>
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SEE SYSTEM RECOMMENDATIONS AND DATA ON PAGES 86-93.
6410/6415 MICROSTEPPING DRIVES

6410

[mm] in

6415

[mm] in