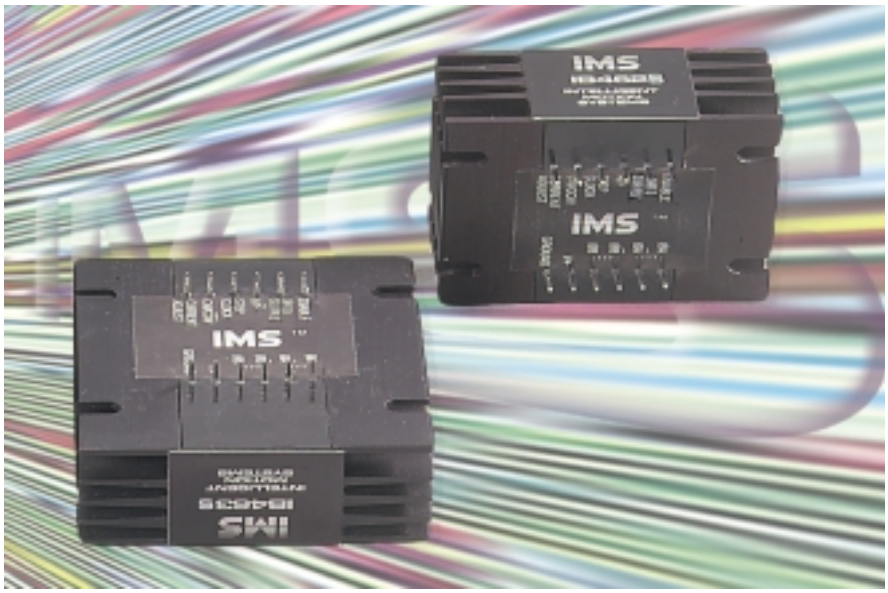
IB462 • IB463

MINIATURE HIGH PERFORMANCE BIPOLAR STEPPING MOTOR DRIVES

FEATURES

- Low Cost
- Single Supply
- High Input Voltage (+40 V)
- High Output Current (2/3.5 Amps)
- Isolated Inputs
- 20 kHz Chopping Rate
- On-Board Phase Logic
- PC or Chassis Mountable
- Extremely Small Size
- Full or Half Step



DESCRIPTION

Intelligent Motion Systems has succeeded in developing a line of miniature high performance stepper motor drivers for today's quality minded, price sensitive market. Recognizing the wide variety of needs in a rapidly growing motion market, IMS has responded with some of the smallest, low cost stepper drives available today.

IMS has included features usually found only in the larger, more expensive drives – single supply, optically isolated inputs, half and full step, and a chopping rate of over 20 kHz that eliminates audible noise.

Their small size make the IB462 and IB463 ideal for PC board mounting, but they can also be frame or chassis mounted and will accept 0.200/0.196 center connectors or plug type terminal strips.

The IB462 and IB463 are just two in our growing line of high performance, cost effective drives.

THE IB462

The IB462, our smallest and lowest priced drive, packs a powerful 160 watts into less than 8.6 cubic inches.

IB462 will effortlessly output up to 2 Amps per phase.

The IB462 operates from 12 to 40 Volts. This high voltage allows for greater speeds at higher torque without resorting to expensive drives or larger motors.

The IB462 comes standard with sourcing inputs, but is also available in a sinking input (-S) version which eliminates the need to interface additional circuitry.

The high efficiency of the IB462 chopper drive, along with its miniature size, makes it ideally suited to replace the less efficient L/R drives. In addition, the low cost and off-the-shelf availability of the IB462 permits an immediate, cost effective solution to an in-house design.

THE IB463

With an output capability of up to 3.5 amps per phase, the IB463, which is only slightly larger than the IB462, can deliver 1.4 times more power.

Although the IB463 circuit fits into an area of less than 10.7 cubic inches, it is capable of delivering a powerful 230 watts!

The IB463 comes standard with sourcing inputs, but is also available in a sinking input (-S) version which eliminates the need to interface additional circuitry.

The IB463 is ideal for those applications requiring more power, but where size and cost are still important factors.

SPECIFICATIONS

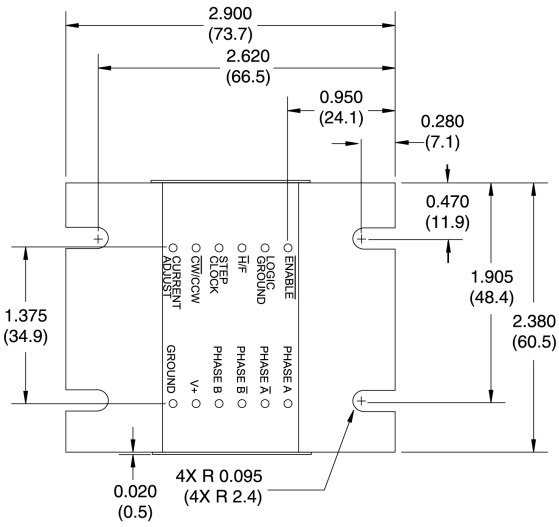
ELECTRICAL

	IB462	IB463
Input Voltage	+12 to +40 VDC	+12 to +40 VDC
Drive Current (Per Phase)	0 to 2 Amps	0 to 3.5 Amps
Logic Input Current (to Opto)	7.0 mA (Typ)	7.0 mA (Typ)
Step Frequency (Max)	40 kHz	40 kHz

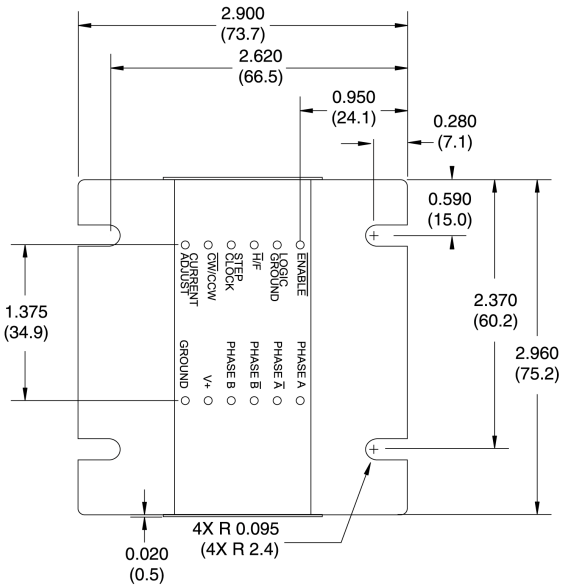
MECHANICAL

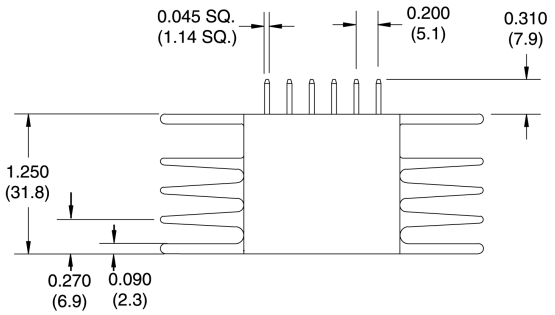
Dimensions in Inches (mm)

IB462



IB463





TEMPERATURE

Storage	–40 to +125° C
Operating	0 to +50° C
Case* (Max)	+70° C

*External heat sink may be required to maintain case temperature.

PIN FUNCTIONS

1. Enable
2. Logic Gnd *(Opto Supply)
3. Half/Full Step
4. Step Clock
5. Direction
6. Current Adjust
7. Gnd
8. V+
9. Phase B
10. Phase $\overline{B}$
11. Phase $\overline{A}$
12. Phase A

*Sinking Input (-S) version

OPTIONS

IB46x-S	Sinking Inputs
OPT140	Interface Board
TS-6	Snap on Terminal Strips
H-4X	Heat Sink
TN-462/TN-463	Non-Isolating Thermal Pad
TI-462/TI-463	Isolating Thermal Pad