

# IMPULSE MICROSTEPPING DRIVES



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IDC introduces the Impulse microstepping drive as the newest addition to their family of high performance microstepping drives and controls. The Impulse microstepping drive uses the power of a Digital Signal Processor (DSP) to obtain the ultimate performance out of a stepping motor. Five new advanced motor control functions now are made possible with each providing unparalleled performance. Having 4 amps of available current, up to 34 frame size stepping motors can be powered. With our complete line of motors, electric cylinders, rodless actuators, and precision positioning tables, IDC has the IDEal™ system for your application.

### Five Key Features

- Open Loop Stall Detect™ (OLSD™)
  - Detect a motor stall without an encoder or resolver
- Multi-Stepping™
  - Low resolution step input = 25,600 microsteps out
- Dynamic Smoothing™
  - Rounds the edges of the move profile (pseudo-S curve)
- Xtreme Smoothness™
  - Eliminates the motor's natural resonance speeds
- Motion Node option
  - Move capabilities

### Other Features

- Anti-Resonance
  - Best performing and largest range in the industry (7.2°)
- Programmable jog function with dual speed settings
- Current reduction modes with programmable time and reduction amount
- 4 programmable inputs
  - -Jog+, Jog-, Jog Speed, EOT, Move Select, Warm Boot, Stop, Kill
- Programmable output
  - Brake, In Motion, Stalled (in addition to fault output)
- All I/O user configurable to active high or active low operation
- Input resolution, programmable from 200-100,000 step/rev in increments of 200
- DIN rail mountable
- Internal fan powered cooling tunnel
- Ultra compact size and ability to mount tightly together
- 160 VDC bus voltage for more torque at higher speeds
- Built in regenerative circuit
- Diagnostic LED
- Configurable with Application Developer software or FP100 keypad

## AGENCY APPROVAL

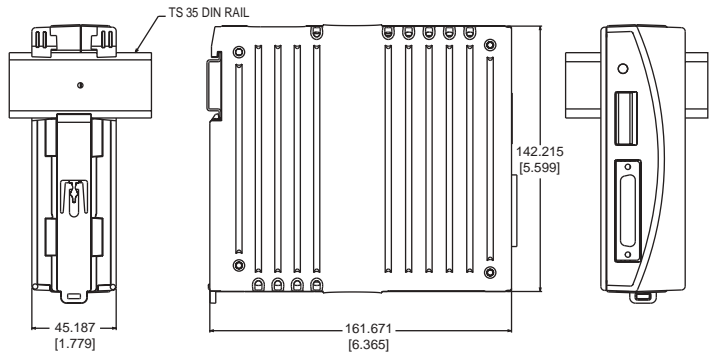
- UL recognized
  - 508C (Type R), file #E137798
- Models CE Compliant: EMC standard EB61800-3 and safety standard EN50178

## DRIVE SPECIFICATIONS

	IMPULSE
Step Sizes	200 to 100,000 in increments of 200
Input Voltage	90 to 120 VAC single phase, 50/60 Hz, 500 VA max @ 4A
Output Current	0.75 to 4.0 amps
Interface	
Inputs	Step and Direction
Outputs	24 V, 100 mA sinking
Protection	Single-Ended Mode Input Voltage (VDC), Differential Mode (VDC between + and -), and Input Current (any terminal @ 0 V to Gnd)
Package Size	45.21 x 142.24 x 161.79 mm (1.78 x 5.60 x 6.37 in)

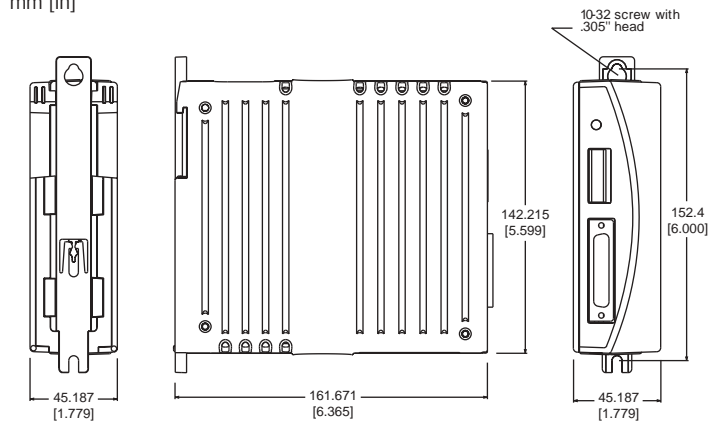
## IMPULSE WITH DIN-RAIL MOUNTING BRACKET

mm [in]



## IMPULSE WITH SCREW TYPE MOUNTING BRACKET

mm [in]



SEE SYSTEM RECOMMENDATIONS AND DATA ON PAGES 88-93.