

Dayton®

AC Drive

Hybrid Drive™ – A Digital Drive with Analog Interface

NEMA 1 / IP 20 Enclosure

Primary Features

Horsepower 1/8 to 1/2 HP
Input 115 and 230 VAC - 1ph
Output 230 VAC - 3ph
Starting Torque 200%
Front Panel On/Off Switch

Benefits

Saves Time

Easy to Install and Simple to Operate does not require programming or commissioning

Up and running in less than 10 minutes.

Motors Last Longer Proprietary CL Software

Provides overload protection, prevents motor burnout and eliminates nuisance tripping.

UL approved as electronic overload protector for motors.

Energy Saving

Uses only the power the application requires

Replacing constant speed with variable speed will significantly reduce energy costs.



Call or visit your local branch or go to grainger.com/dayton for complete product line information.

Additional Features

Sensorless Flux Vector Control

Flux Vector Compensation with Static Auto-Tune provides excellent speed regulation with high torque loads throughout the entire speed range. Auto energy saving at light loads. Smooth motor torque.

Electronic Inrush Current Limit (EICL™) Protection

Eliminates harmful inrush AC line current during power up.

Ride-Through

Provides smooth recovery to the previous set speed during a momentary power loss.

Holding Torque at Zero Speed

Resists motor shaft rotation when the drive is in "Stop" mode.

Regeneration Protection

Eliminates tripping due to high bus voltage caused by rapid deceleration of high inertial loads.

Undervoltage and Overvoltage Protection

Shuts down the drive if the AC line input voltage goes above or below the operating range.

Short Circuit Protection

Shuts down the drive if a short circuit occurs at the motor (phase-to-phase).

Trimpot Adjustments

Min. Speed, Max. Speed, Accel, Decel, Current Limit, Slip Comp.

Jumper Selections

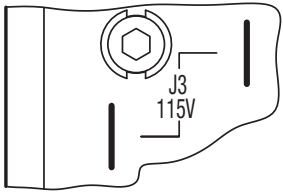
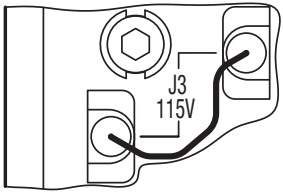
AC Line Input Voltage, 50Hz/60Hz, Motor Frequency, 1X/2X Motor RPM, Automatic/Manual Start Mode, Forward/Reverse Speed Select.

Drive Options

Supplied Forward-Stop-Reverse Switch

Provides motor reversing and stop functions.

Drive Input Voltage Settings

Drive Set for 208/230 Volt AC Line Input (J3 Not Installed) (Factory Setting)	Drive Set for 115 Volt AC Line Input (J3 Installed)
	



Applications

- Actuators • Air Cleaners • Amusement Rides
- Ball Pitching Machines • Blowers • Boat Lifts
- Bowling Alley Lane Cleaners • CNC • Conveyors
- Door and Gate Openers • Drilling • Duct Cleaners
- Dumbwaiters • Elevators and Hoists
- Exercise Equipment • Fabric Processing • Fans
- Feeders • Film Processing • Floor Cleaning
- Food Processing • Garment Cutting
- Grinding and Polishing • Hoppers • Horse Walkers
- HVAC • Indexers • Irrigation • Laminating
- Lift Station Pumps • Machine Tools
- Medical • Milling • Mixers • Oven Conveyors
- Packaging • Paint Blenders, Shakers, and Sprayers
- Paper Handling • Portable Equipment Used with GFCIs
- Pottery Wheels • Printing
- Pumps • Range Hoods • Sandblasting • Saws
- Sewing • Stretch Wrap • Textile • Treadmills
- Therapeutic Vibrators • Washing Machines
- Wave Soldering • Web Processing • Wheelchair Lifts
- Whole House Vacuums and Attic Fans
- Wire Feeders • Wood and Metal Lathes and Cutters
- Winders and Unwinders

Call or visit your local branch or go to granger.com/dayton for complete product line information.

Ratings

115/230 VAC 1-Phase Input • 230 VAC 3-Phase Output

Part No.	Enclosure	Ratings		Net Weight	
		HP, (kW)	Amps	Lbs.	kg
13E660	NEMA 1 / IP 20	1/2, (0.37)	2.4*	1.58	0.72

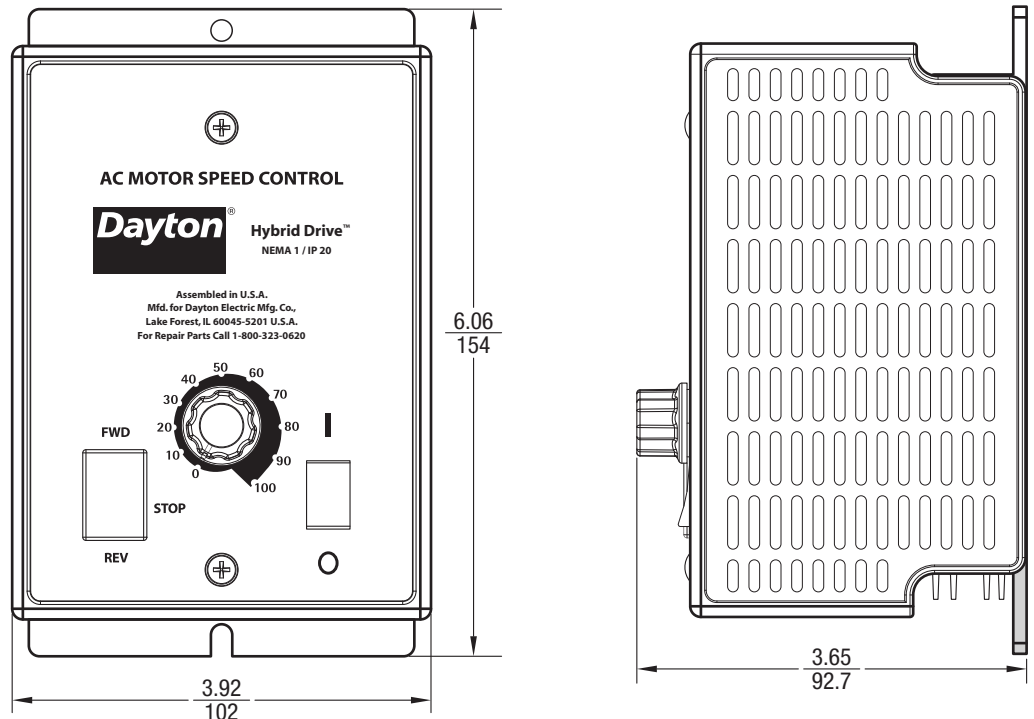
*Rated 2.2 Amps on 115 VAC input.

Specifications

Maximum Load (% of Current Overload for 2 Minutes)	150
Switching Frequency (kHz)	8
Output Frequency Resolution (Hz)	0.06
Minimum Output Frequency to Motor (Hz)	0.3
Acceleration Time (Seconds)	0.3 – 20
Deceleration Time (Seconds)	0.3 – 20
Speed Range (Ratio)	60:1
Speed Regulation (30:1 Speed Range, 0 – Full Load) (% Base Speed)	2.5
Stalled Motor Trip Time (Seconds)	6
Braking	Regenerative*
Operating Temperature Range (°C / °F)	0 – 40 / 32 – 104
Storage Temperature (°C / °F)	-25 – +85 / -13 – +185

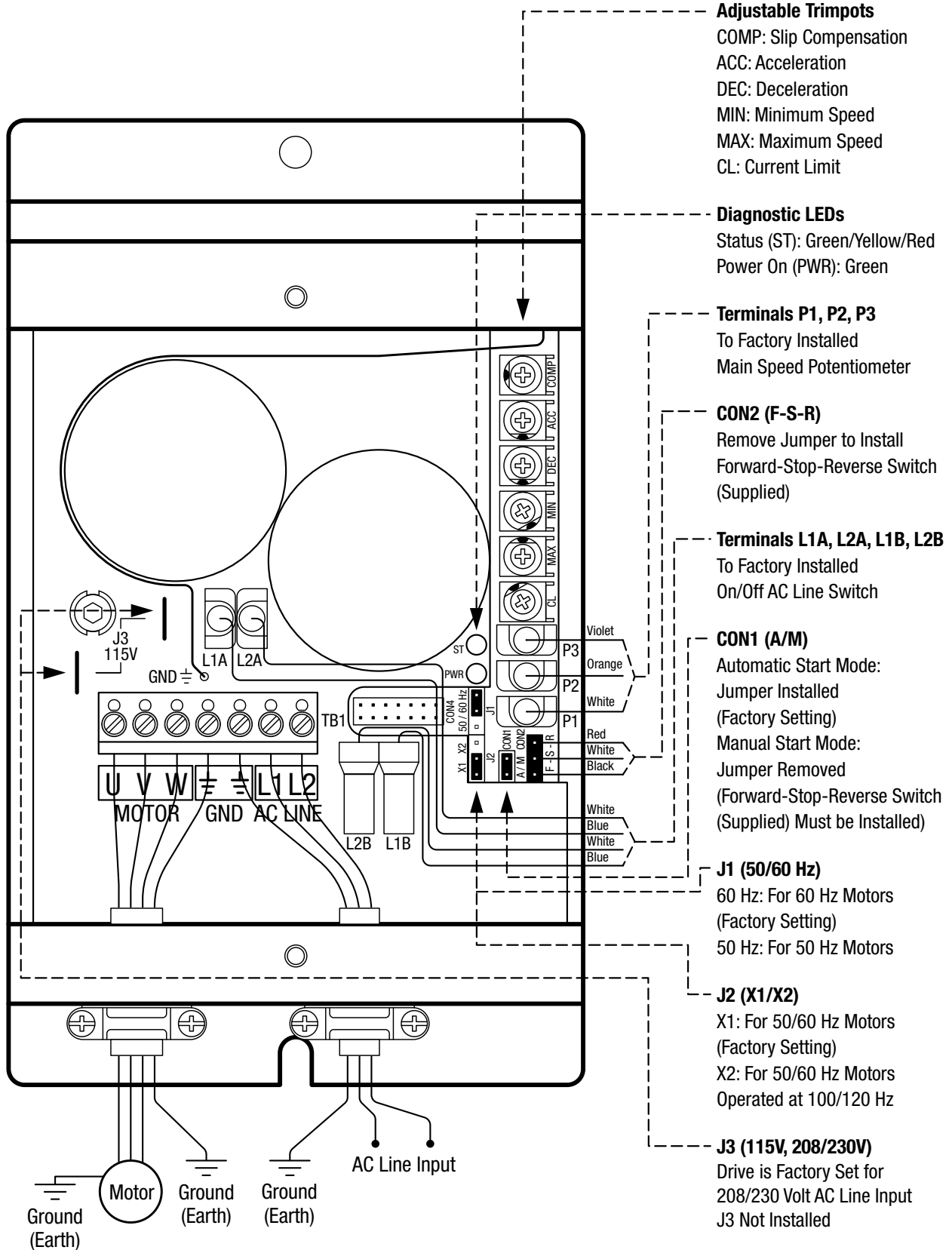
*DC Injection Braking – requires factory programming.

Dimensions – (Inches/mm)



Call or visit your local branch or go to grainger.com/dayton for complete product line information.

Control Layout



Find it at Grainger.

Call or visit your local branch or go to grainger.com/dayton for complete product line information.

