CHAIN & DRIVES
COMPLETE POWER TRANSMISSION

POWER > SPEED > TORQUE

KBMA

Hybrid Drive™

A Digital AC Drive with Analog Interface

Rugged Aluminum NEMA 1 / IP 50 Enclosure

Primary Features

Horsepower 1/8 to 1 HP, Jumper Selectable
1Ø Input 115/230 VAC, 50/60 Hz
3Ø Output 230 VAC
200% Starting Torque
Front Panel Power On/Off Switch
Class "A" (CE) RFI Filter*

c UL us RoHS COMPLIANT CE

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.

Economical to Use

Eliminates secondary enclosure
No holes to drill, no switches to install.
No need to derate drive for high starting torque applications.
Combines Soft Start with Variable Speed
Adjustable Soft Start.

Customization for OEM's

When an off the shelf drive does not meet your needs, we will work with you to provide a custom drive solution, Ready to Use, "Out-of-the-Box."

Customization includes: Pre-calibrating or programming of a stock control, adding a custom label or branding, custom software, PLC functions or designing a new control.

GFCI software, *with factory programming, allows the equipment to operate with Ground Fault Circuit Interruption circuit breakers or outlets.*

**KBMA-24DF.*

KB GENESIS®
Automation and Control

KB Electronics, Inc.
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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.

Run/Fault Relay
Can be used to turn equipment on or off, to signal a warning if the drive is put into "Stop" mode, or to signal if a fault has occurred.

On/Off AC Line Switch
Disconnects the AC line.

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).

Basic, Programmable, Trimpot Adjustments
Min. Speed, Max. Speed, Accel, Decel, Current Limit, Slip Comp.

Drive Options

Forward-Stop-Reverse Switch
Provides motor reversing and stop functions.

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

Visit kbelectronics.com
to learn about Build-A-Drive™ , KB's New AC Inverter Program.

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Ratings

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

Model No.	Part No.	Ratings		Net Weight	
		HP, (kW)	Amps	Lbs.	kg
KBMA-24D	9533	1, (0.75)	3.6	2.42	1.09
KBMA-24DF*	9534	1, (0.75)	3.6	2.48	1.12

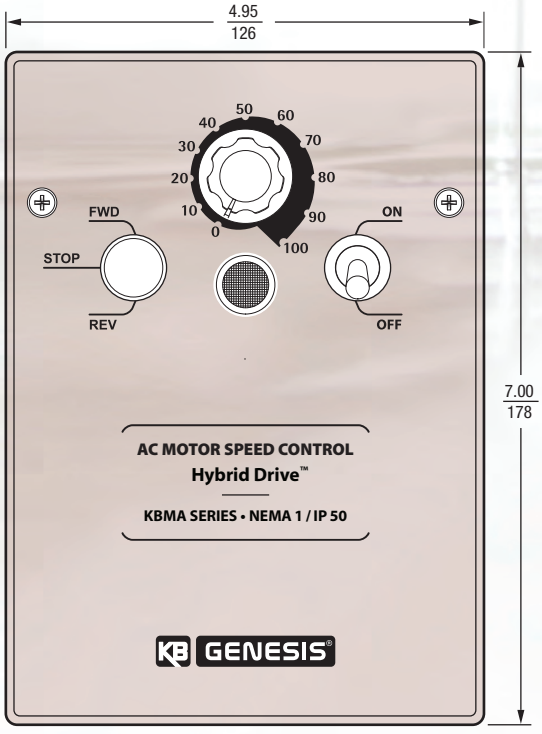
**"F" Suffix for Built-In Class "A" (CE) RFI (EMI) AC Line Filter.*

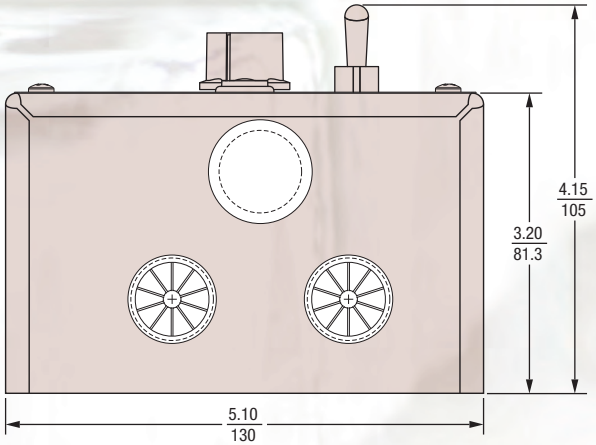
Specifications

Maximum Load (% of Current Overload for 2 Minutes)	150
Carrier, Switching Frequency (kHz)	16, 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	DC Injection*
Operating Temperature Range (ºC / ºF)	0 – 40 / 32 – 104
Storage Temperature (ºC / ºF)	-25 – +85 / -13 – +185

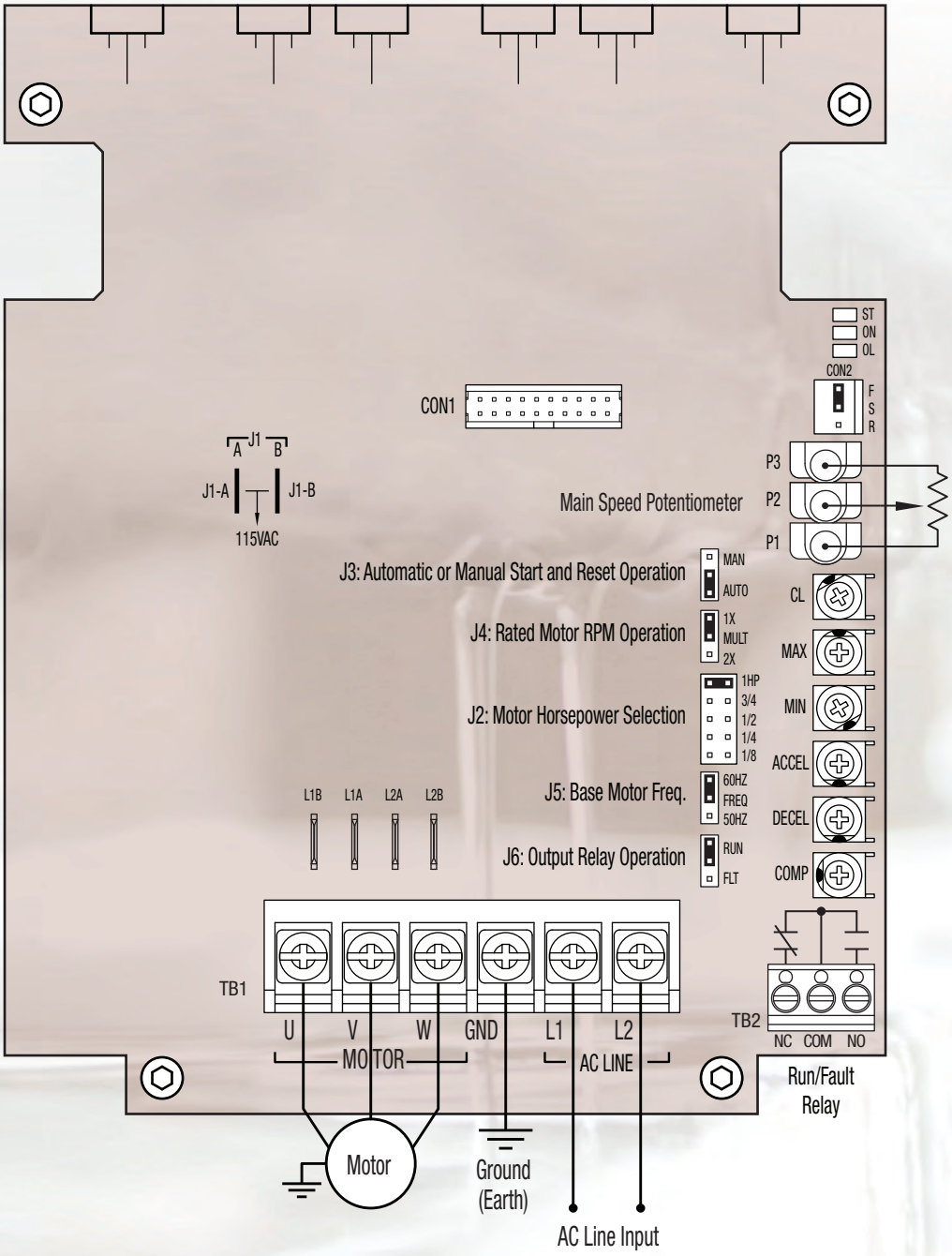
**Requires factory programming.*

Dimensions – (Inches/mm)





General Connection Diagram



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