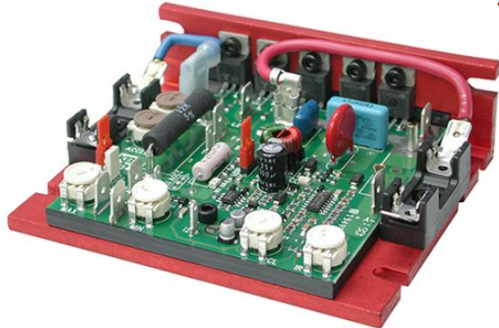


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Variable Speed Drives

KB9449 and KB9450



Typical Applications:

- Conveyors
- Exercise Equipment
- Feeders
- Packaging Machines
- Pumps
- Screening
- Printing Equipment and
- Many more

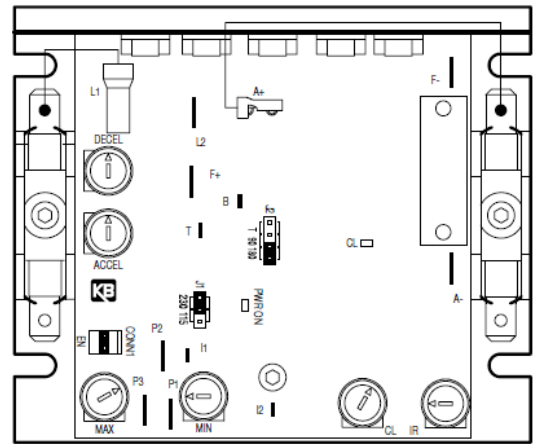
- ✓ 1/100 – 1 ½ HP¹ @ 115 VAC – 50/60 Hz
- ✓ 1/50 – 3 HP¹ @ 230 VAC – 50/60 Hz

Standard Features:

- Plug-in Horsepower Resistor^{®5} – Eliminates the need to calibrate control for IR Comp and Current Limit when used on various horsepower motors.
- Auto Inhibit[®] – Allows the control to be rapidly switched “on” and “off” using the AC line.
- Inhibit and Enable – Allows the control to be turned “on” and “off” using electronic switching.
- Trimpots: MIN & MAX Speed, IR Comp, Current Limit, ACCEL & DECEL
- Model KBMM-225D can operate on 115 or 230 VAC input with 90 or 180
- VDC motors. – Jumper selectable.
- Model KBMM-225 operates on 230 VAC input with 90 or 180 VDC motors.
- Armature or Tach-Generator Feedback
- MOV Transient Protection
- SMT Construction
- Power on and Current Limit LED Indicators
- Built-in Armature and AC Line Fusing⁵
- Main Speed Potentiometer (5 kΩ)

Optional Accessories:

- **AUXILIARY HEAT SINK (PART NO. 9861)** – Doubles the horsepower rating of the control.
- **BARRIER TERMINAL BOARD (PART NO. 9897)** – Converts the quick-connect terminals of the KBMM™ to a barrier terminal block. Contains PC board
- mounted line and armature fuse holders. Plugs onto the quick-connect terminals of the KBMM.
- **SI-6 SIGNAL ISOLATOR (PART NO. 9444)** – Provides isolation between no isolated signal sources and the KBMM™. Plugs onto the quick-connect terminals
- of the KBMM™. Contains barrier terminal block.
- **RUN/BRAKE MODULE (PART NO. 9952)** – Used for applications that require rapid stopping of the motor. Contains barrier terminal block.
- **BARRIER TERMINAL ACCESSORY KIT (PART NO. 9883)** – When used with the Auxiliary Heat Sink, it converts the quick-connect terminals of the KBMM™ to a barrier terminal block and provides built-in fusing.
- **DIAL PLATE AND KNOB KIT (PART NO. 9832)** – Provides indication of the Main Speed Potentiometer position (incremented from 0 – 100%).
- **FINGER-SAFE COVER (PART NO. 9564) 6** – Converts the control from open chassis to the IP-20 standard.
- **DIN RAIL MOUNTING KIT (PART NO. 9995)**
- **RFI FILTERS** – A variety of filters are available in both undermount and remote designs. The filters comply with CE Directive 89/336/EEC relating to the EMC Class A Industrial, Class B Residential and FCC A and B.



Specifications:

SPEED RANGE (RATIO)	50:1	LINE VOLTAGE REGULATION (AT FULL LOAD, ± 10% LINE VARIATION) (% SPEED)	1/2*
LOAD REGULATION – ARMATURE FEEDBACK (0 – FULL LOAD, 50:1 SPEED RANGE) (% BASE SPEED)	1*	CONTROL LINEARITY (% SPEED VS. DIAL ROTATION)	2
LOAD REGULATION – TACHOMETER FEEDBACK (0 – FULL LOAD, 50:1 SPEED RANGE) (% SET SPEED)	1*	ACCEL-DECEL TIME RANGE (0 – FULL SPEED) (SECS.)	0 - 2000
ACCEL-DECEL TIME RANGE (0 – FULL SPEED) (SECS.)	0.2 – 10	MIN SPEED TRIMPOT RANGE (% FULL SPEED)	0-30*
MAX SPEED TRIMPOT RANGE (% FULL SPEED)	50 – 120*	MAXIMUM ALLOWABLE AMBIENT TEMPERATURE (AT FULL RATING) (°C/°F)	45/113
IR COMPENSATION TRIMPOT RANGE (AT SPECIFIED FULL LOAD) (VOLTS)	0 – 24	TACH FEEDBACK INPUT VOLTS (PER 1000 RPM) (VDC)	7/50

Variable Speed Drives

KB9449 and KB9450

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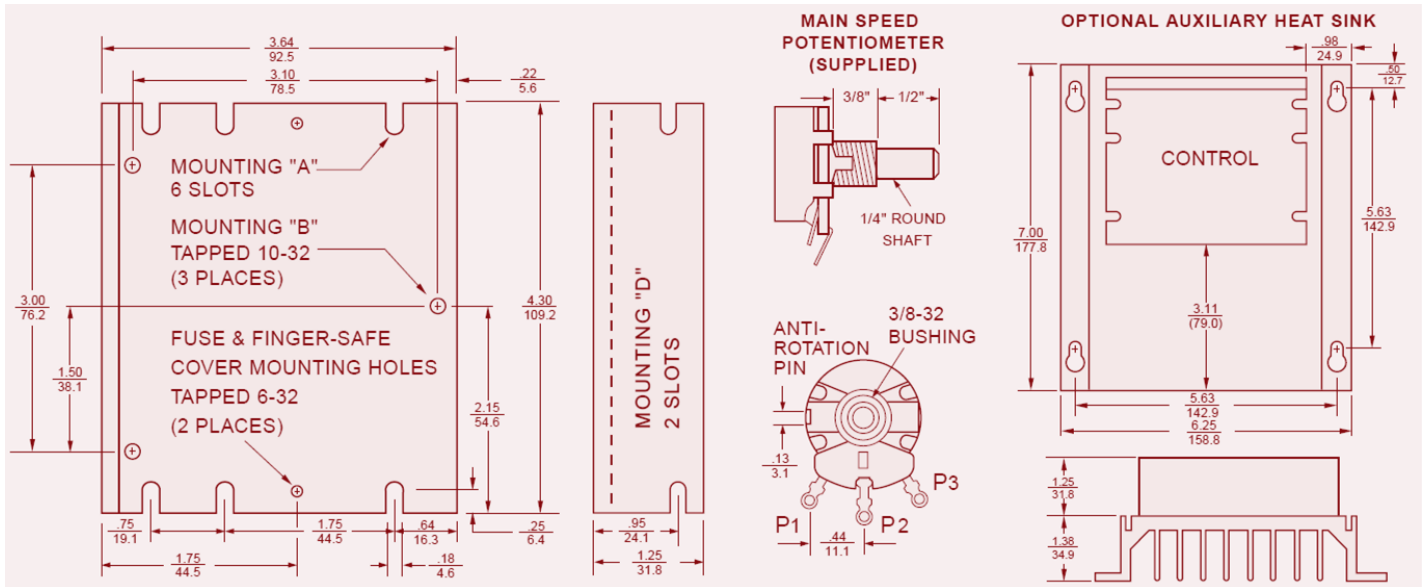
GEARED MOTORS - LINEAR ACTUATORS - CONTROLS

- Over 40 Years of Supplying Africa -

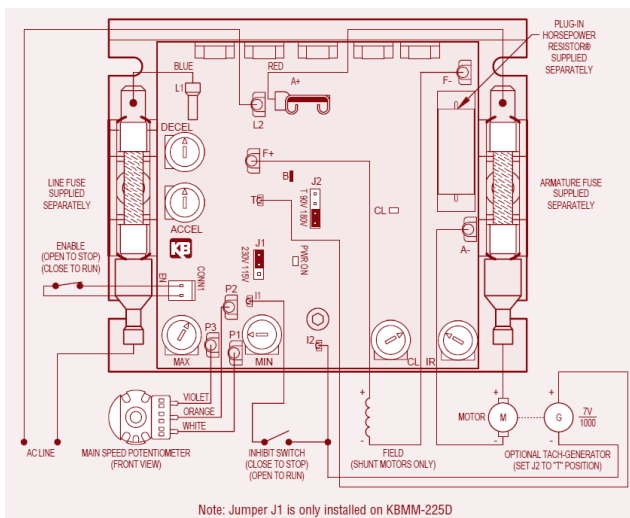
Electrical Ratings:

MODEL NUMBER	PART NUMBER	AC LINE VOLTAGE (VAC) ±15% 50/60 HZ	MOTOR VOLTAGE (VDC)	RATING WITHOUT AUXILIARY HEAT SINK			RATING WITH AUXILIARY HEAT SINK			FIELD VOLTAGE (SHUNT WOUND MOTORS ONLY) (VDC)
				MAX AC LOAD CURRENT (RMS AMPS)	MAX DC LOAD CURRENT (AVG. AMPS)	MAXIMUM KW	MAX AC LOAD CURRENT (RMS AMPS)	MAX DC LOAD CURRENT (AVG. AMPS)	MAXIMUM KW	
KBMM-125	9449	115	0 - 90	12	8	0.6	24	16	1.1	50,100
KBMM-225	9450	230	0 - 180			1.1			2.3	100,200
			0 - 90*			0.6			1.1	100
KBMM-225D	9451	115	0 - 90			0.6			1.1	50,100
		230	0 - 180			1.1			2.3	100,200
			0 - 90*			0.6			1.1	100

Mechanical Specifications ($\frac{\text{INCHES}}{\text{MM}}$):



Connection Diagram (Model KBMM-225D):



Plug-in Horsepower Resistor® & Fuse Selection Chart ¹

MOTOR HORSEPOWER RANGE ²		PLUG-IN HORSEPOWER RESISTOR® VALUE (OHMS)	RECOMMENDED FUSE SIZE (AMPS)	
ARMATURE VOLTAGE 90 - 130 VDC	ARMATURE VOLTAGE 180 VDC		LINE	ARMATURE
1/100 - 1/50	1/50 - 1/25	1.0	12	1/3
1/50 - 1/30	1/25 - 1/15	.51	12	1/2
1/30 - 1/20	1/15 - 1/10	.35	12	3/4
1/20 - 1/12	1/10 - 1/6	.25	12	11/4
1/12 - 1/8	1/6 - 1/4	.18	12	2
1/8 - 1/5	1/4 - 1/3	.1	12	2 1/2
1/4	1/2	.05	12	4
1/3	3/4	.035	12	5
1/2	1	.025	12	8
3/4	1 1/2	.015	12	12
1 ³	2 ³	.01	25	15
11/2 ³	3 ³	.006	25	25

¹ Fuses and Plug-in Horsepower Resistor® supplied separately.

² For overlapping motor horsepower range use lower value Plug-in Horsepower Resistor®.

³ Use with Auxiliary Heat Sink (P/N 9861) - see Electrical Ratings.