

# KBVC Series

## Variable Speed DC Motor Controls for Permanent Magnet (PM) and Shunt Wound Motors

1/100 – 1/3 HP @ 115 VAC – 50/60 Hz  
 1/100 – 3/4 HP @ 230 VAC – 50/60 Hz

### TYPICAL APPLICATIONS

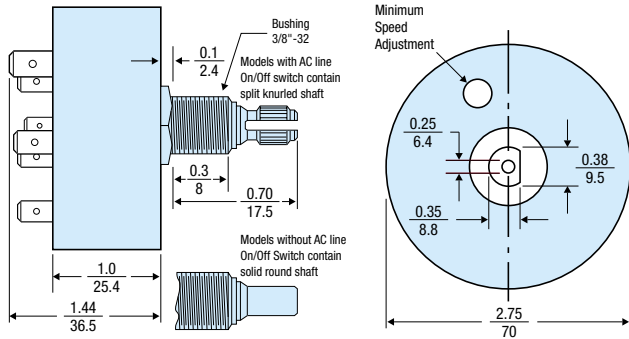
- Conveyors • Packaging Machines • Mixers • Pumps • Folders



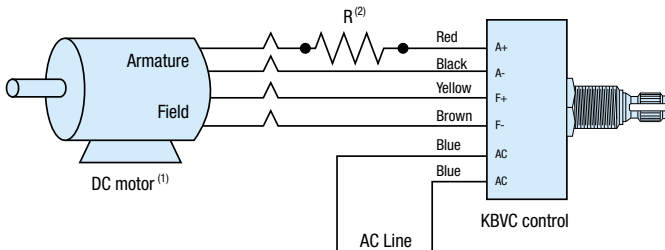
### STANDARD FEATURES

- Full-wave output with feedback.
- Built-in ON/Off AC line switch<sup>3</sup>
- Maximum Speed Limiter
- 1/4" Quick-connect Terminals<sup>4</sup>
- Minimum speed adjustment
- MOV Transient Protection
- RFI Filter

### MECHANICAL SPECIFICATIONS (Inches / mm)



### CONNECTION DIAGRAM

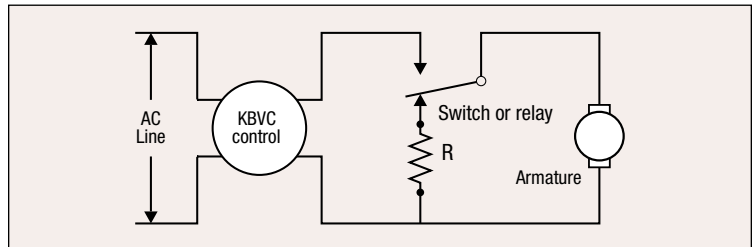


### DESCRIPTION

KBVC series of full-wave DC motor controls is designed for applications where sophisticated controllability is not required. The controls operate from a standard 50/60 Hz AC power source to control DC motors through 1/3 HP at 115 VAC and 3/4 HP at 230 VAC. A built-in RFI filter substantially reduces interference on sensitive electronic equipment.

The controls are supplied standard with a built-in minimum speed trimpot, 1/4" quick connect terminals and transient suppression. UL Recognized\* and CE\*\* approved.

### DYNAMIC BRAKE CIRCUIT



### RESISTOR (R)

Motor Load Current (Amps DC)	R (Ω) – (All 25 watt)
2.5 – 3.0	2
1.6 – 2.5	3
1.2 – 1.6	5

### ELECTRICAL RATINGS

Model	Part Number	AC Line Voltage (VAC) ± 15% 50/60 Hz	Motor Voltage (VDC)	Maximum AC Line Current (RMS Amps)	Maximum AC Line Surge Current (RMS Amps)	Maximum DC Load Current (Avg. Amps)	Maximum Horsepower HP, (kW)
KBVC-11	—	115	0 - 90	1.0	6.0	0.75	1/10, (.07)
KBVC-14	H9053	115	0 - 90	4.0	15.0	3.0	1/3, (.25)
KBVC-14NS	H9044A	115	0 - 90	4.0	15.0	3.0	1/3, (.25)
KBVC-21	—	208/230	0 - 180	1.0	6.0	0.75	1/6, (.15)
KBVC-24	H9057	208/230	0 - 180	4.0	15.0	3.0	3/4, (.5)
KBVC-24NS	H9046A	208/230	0 - 180	4.0	15.0	3.0	3/4, (.5)

Notes: 1. Field circuit is not required for PM motors. Add "PM" to model no. (Ex. KBVC-14PM). 2. Surge resistor is used on motors having excessive surge currents. Armature switching circuits such as dynamic braking or reversing also require a surge resistor. Resistor should be installed between control and switch (or relay). See chart for proper size resistor. 3. Built-in On/Off AC Line Switch can be omitted. Add "NS" to model (Ex.: KBVC-14NS). 4. Wire leads can be supplied in lieu of 1/4" OD Terminals. 5. Models KBVC-11 and KBVC-21 are non-stock items. \* Only 115 VAC models are UL Recognized. \*\* Installation of a CE approved RFI Filter is required. Additional shielded cables may also be required.



KB ELECTRONICS, INC.

12095 NW 39th Street, Coral Springs, FL 33065-2516 • (954) 346-4900 • Fax (954) 346-3377

Outside Florida Call Toll Free (800) 221-6570 • email – info@kbelectronics.com

www.kbelectronics.com