

Oriental Motor has a High Performance Compact Microstep Motor Driver Package

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Oriental Motor USA Corp. now offers a new complete RBK 2 phase bipolar stepping motor and drive package featuring dc input and many important control functions. The RoHS compliant stepping package incorporates a number of special control functions. The smooth drive function enables low- vibration operation with the flick of a switch.

The RBK's smooth drive function divides the basic 1.8 degree step angle up to 128 microsteps (0.018 degree step angle) in 16 selectable resolutions using built-in switches located on the driver. The third harmonic suppression function reduces stepper motor torque vibrations by correcting or shaping the driver current waveforms, particularly at lower motor shaft speeds. Another special function suppresses the vibration signal levels in the mid-speed range.

The 4 control functions enable the RBK system to provide very smooth operation over a wide speed range. The RBK bipolar driver employs a constant current drive strategy over a wide voltage range of 20 to 75 vdc. The effective current reaches 6.3 amps peak (4.5 amps RMS) per phase.

There are two step motor frame sizes, with 3 models each. The smaller models, the RBK264A, 266A and 268A, are 2.22" in diameter (size 23) with holding torques ranging from 68 up to 240 oz-in. The larger 3.35" (size 34) in diameter models, the RBK296, 299 and 2913, develop holding torques ranging from 310 to 910 oz-in.

The second RBK series, the IP65 rated motor package, is composed of the same 2 frame sizes and 3 models each with similar holding torques. The part number for the smaller sized IP65 size 23 is RBK264T and the smaller sized IP65 size 34 is RBK296T.

