

# Optimized Gearmotors for Green Applications

## Why "Green" Designs?

Studies show that electric motors and gearmotors are responsible for over 60% of the electricity consumed by American industry. Gearmotor and motor solutions from Bodine Electric can help you optimize your power management and system efficiency.

## We Offer:

- brushless DC or permanent magnet DC motors that achieve up to 85% efficiency.
- a wide range of low-voltage winding options (12-48 VDC) for battery and solar powered OEM applications.
- fractional horsepower, inverter-duty, 3-phase AC gearmotors and motors (230, 460 VAC, and 230/460 VAC), and many special AC winding options for three-phase motor applications (48-575 VAC).

## Benefits to Engineers

Our expertise in gear design and electrical design allows us to propose many small design modifications that add up to a high-performance solution. For example, our engineers can suggest a winding and gear ratio combination that is optimized for efficiency. When possible, Bodine utilizes synthetic lubrication and parallel shaft gearheads with helical gears for better performance.

Lower gear ratios with fewer stages are more efficient. The winding can be optimized for the chosen speed by changing wire size, number of turns, and slot fill to increase efficiency at the required speed/load point. Taken together, these modifications create the most efficient product possible. Bodine gearmotors are designed to last, and not to be replaced.

Bodine's compact and cost-efficient products provide the predictable performance required for low-voltage, battery powered, remote-location, or solar applications. When these gearmotors and controls are used together, they provide a complete, single-source motion control system.

## Design Solutions from Bodine

- RoHS compliant
- System-matched components for maximum efficiency
- Custom winding, gearing and lubrication for optimized performance, and longest life



**BODINE**<sup>®</sup>  
**ELECTRIC**  
**COMPANY**

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