



## 12V GEAR REDUCTION STARTERS FOR MEDIUM DUTY DIESEL ENGINE APPLICATIONS



### DESIGNED FOR YOUR TOUGHEST APPLICATIONS

For 35 years, the biggest names in engine manufacturers have chosen one name in cranking power — DENSO. As the world's largest starter manufacturer, our starters simply install faster and perform better under rigorous conditions. The DENSO commitment to quality, durability, performance and innovation is the reason our components are truly better by design.



## SPECIFICATIONS

### 228000-5851 & 228000-7121:

- 12V 4.0 kW
- Mount: SAE #1
- Pinion: 10 tooth
- Rotation: Clockwise (viewed from pinion side)
- Wet Clutch
- Ground Stud

### 228000-9750:

- 12V 4.0 kW
- Mount: SAE #1
- Pinion: 11 tooth
- Rotation: Clockwise (viewed from pinion side)
- Dry Clutch
- Ground Stud
- Jump Start Protection

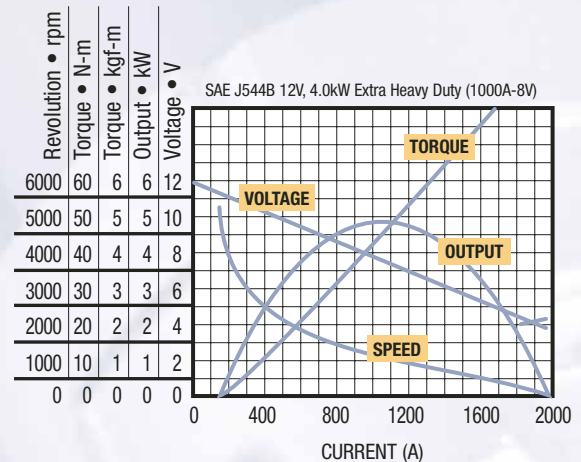
## FEATURES / BENEFITS

- Compact and lightweight design
- High torque
- High durability in frequent stop/start applications
- Impact torque limiter used to prevent ring gear damage
- Self-contained clutch shaft
- Solenoid and clutch arranged co-axially for smooth engagement
- Sealed heavy-duty ball bearings

## APPLICATIONS

- Beverage Fleets (Bottled Water, Soft Drinks, Beer, etc.)
- Chevy Topkick
- Construction Equipment
- Crane Equipment
- Ford Trucks
- Freightliner FL Series Medium Duty Trucks
- Generator Sets/Compressor Units
- GMC Kodiak
- Package Delivery Fleets
- Pick-up & Delivery Fleets
- Recreation Vehicles
- School Bus Fleets
- Terminal Tractor (Trailer/Yard Jockey Equipment)

## STARTER OUTPUT PERFORMANCE (STANDARD)



## PART NUMBERS

- 228000-5851: 6.6L/7.2L Size Engines\*  
Manual Transmission  
Mounted on Driver's Side
- 228000-7121: 6.6L/7.2L Size Engines\*  
Automatic Transmission  
Mounted on Driver's Side
- 228000-9750: 6.6L/7.2L Size Engines\*  
Chevy Topkick Truck  
GMC Kodiak  
Mounted on Passenger's Side

\* See DENSO Heavy Duty Application Catalog for specific applications.



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