

# Product Bulletin Bulletin Number: 07-ROT-2018-EU Issue date: 01/2019

# **Rotating Electrics**

Heavy Duty & Commercial

> DENSO's already robust rotating range is extended to include the same OE-quality, reliable parts, now for heavy duty and commercial vehicles. The Heavy Duty (HD) range expansion covers three additional HD types: PA90 and P5/P8 type starters and brushless (B/L) alternators.



# PA90 Heavy Duty Starter

Designed for the toughest applications and covering both 12V and 24V, DENSO's PA90 Heavy Duty Starter installs faster and performs better under rigorous conditions. The starter includes a totally enclosed structure for water/dust proofing, enhanced safety measures with a fusible connecting wire to avoid critical failure mode and a smaller and lighter design with a high internal gear reduction ratio.

#### Other key features include:

- > Slip disk shock absorber
- > Drive spring engagement
- > Clutch structure
- > Integrated clutch outer with planetary gear carrier
- > Integrated bearing race with clutch inner



# HD Planetary Gear Reduction Starter (P5/P8)

With an innovative, durable design, DENSO's HD Planetary Gear Reduction Starter delivers extensive cranking power (5kW, 8kW) direct to the aftermarket. The new heavy duty starter features a compact, lightweight design, increasing ease of installation and reducing total weight. Additionally, the starter has high torque for maximum starting power and improved cold start ability.

## Other key features include:

- > A rotatable nose cone for increased application flexibility
- > Soft engagement for improved durability of pinion and ring gear
- > Long life operation with needle bearing in drive-in end and ball bearing in commutator

## Brushless (B/L) Heavy Duty Alternator

In addition to the PA90 and P5/P8 starters, DENSO's heavy duty range expansion also includes a DENSO Brushless Heavy Duty Alternator. The heavy duty, brushless (B/L) construction is built to endure heat producing engines, ensuring a durable, long-life design. Like DENSO's other alternators, the brushless (B/L) alternator also has a compact design in a lighter unit for easy fitting.

## Other key features include:

- > High output at lower RPM
  - Over 80A at engine idle for 12V
  - Over 20A at engine idle for 24V
- > Proven reliability for the lowest industry return rate
- > Heavy duty bearings
  - High load rating on front and rear bearings provide a greater support area



Further details of DENSO's Rotating range are available online at denso-am.eu, on TecDoc or from your local DENSO Aftermarket contact.

**DENSO EUROPE B.V.** Hogeweyselaan 165 | 1382 JL Weesp | The Netherlands Tel. +31 (0)294 - 493 493 | Fax. +31 (0)294 - 417 122

www.denso-am.eu www.denso-am.co.uk

