

July 20, 2010

To Whom It May Concern:

Company Name: AIDA ENGINEERING, LTD.
Name of Representative: Kimikazu Aida,
President and Representative Director

Developing An Entire Series of the 'Low-Speed, High-Torque' Motors Based on Motor Technologies Originally Developed for Servo Press Applications

Market Launch of Large-Capacity Servo Motors

AIDA Engineering, Ltd., (President and Representative Director: Kimikazu Aida) (hereafter referred to as 'AIDA') will develop and begin selling an entire series of large-capacity servo motors that were first developed and manufactured independently by AIDA for its servo press machines.

'Low-speed, high-torque' servo motors enable direct-drive mechanisms that do not need reducers even when used to drive large machinery. AIDA will be recommending the utilization of servo motors for a wide range of non-press applications, including general-purpose industrial machinery, construction machinery, food-processing machinery, wheeled transports, ships, and manufacturing line drives.

This product will be exhibited at the motor technology exhibit at the Techno-Frontier 2010 show held at the Tokyo Big Sight convention center from July 21 to July 23 (Wed. through Fri.)



From left to right in the photograph:

B560-600: Maximum torque: 17.5 kNm; Rated RPM: 260 min⁻¹

B450-450: Maximum torque: 9.0 kNm; Rated RPM: 350 min⁻¹

B375-300: Maximum torque: 3.5 kNm; Rated RPM: 500 min⁻¹

■ Reasons for the Market Launch

In order to conserve energy, reduce vibration and noise, and increase the performance of large machinery, a major trend in recent years has been to convert from conventional hydraulic drives, engine drives, and induction motor drives to servo motor drives with their permanent-magnet synchronous motors. Conventional servo motors run at high rpms, and thus a reducer is necessary for large machinery drive applications with high-torque requirements, which results in poor torque conversion efficiencies.

The large-capacity 'low-speed, high-torque' servo motors that AIDA will now begin selling were first successfully developed and manufactured independently by AIDA as a part of its initiative that beat competitors in offering the first servo presses in 2002, because at that time there were no optimized servo motors in the market that could be used for press drive applications. AIDA has now been manufacturing its servo motors for almost 10 years, and these motors have a proven track record for high reliability.

Because these 'low-speed, high-torque' servo motors enable direct-drive mechanisms that do not need reducers even when used to drive large machinery, it increases the benefits that can be derived from converting to servo motor drives. AIDA will be recommending their use for a wide range of non-press applications, including general-purpose industrial machinery (injection molding machines, die casting machines, extrusion machines, etc), construction machinery, food-processing machinery, wheeled transports, ships, and manufacturing line drives.

■ Product Characteristics

- 1) Compact motor sizes due to improved torque densities.
- 2) Improved control performance due to low cogging torque (only a few percentage points of the rated torque).
- 3) Large-capacity drive performance due to the multiple servo amplifier architecture.
- 4) Lower energy usage due to the efficient utilization of the motor's power regeneration.

■ Product Overview

Capacity: Initially, 3 models with rated outputs ranging from 30~110 kW and rpms ranging from 220~500 min⁻¹.

List Price: Between 1.5~10 million yen depending on capacity. (Servo amplifiers sold separately.)

Initial Product Launch: July 20, 2010

Sales Target: 300 units per year.

< Inquiries Relating to This Subject >

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