

# Main Patents

## ■ Patents registered in 2011

Registration Number	Name	Inventor(s)
EP Patent 1772944	Stator For Motors	Toshihito Miyashita, Hiroshi Hioki
EP Patent 1732194	Inductor-Type Resolver	Sakae Kishi, Kazuhiro Makiuchi
EP Patent 1598920	Permanent Magnet Rotary Motor	Toshihito Miyashita, Satoru Onodera
U.S. Patent 7919896	Stator For Rotary Electric Machine	Ikuo Takeshita, Shigenori Miyairi
U.S. Patent 7928615	Molded Motor	Toshihito Miyashita, Hiroshi Hioki, Masakazu Chikyu
U.S. Patent 7939980	Motor Mounted With Stopper Fitting For Fixing Ball Bearing	Yukio Miura, Mitsuaki Shioiri
U.S. Patent 7965009	Motor Rotor And Manufacturing Method Thereof	Toshihito Miyashita, Takashi Matsushita, Norihito Tanaka
U.S. Patent 7969113	Motor Control System	Yuuji Ide
U.S. Patent 8008831	Stator For Rotary Electric Machine	Ikuo Takeshita, Shigenori Miyairi
U.S. Patent 8013485	Motor With An Electromagnetic Brake	Toshihito Miyashita, Masahiro Yamaguchi
U.S. Patent 8018746	Parallel Inverter System	Yoshiaki Okui
U.S. Patent 8022658	Motor Control System Including Electrical Insulation Deterioration Detecting System	Yuuji Ide
U.S. Patent 8063523	Stator For Rotary Electric Machine	Masaaki Ohashi, Youichi Horiuchi, Yasushi Yoda, Kouji Nakatake
Philippine Patent 1-2006-000556	Axial-Flow Fan	Masashi Miyazawa, Toshiki Ogawara, Tomoaki Ikeda
Philippine Patent 1-2007-000265	Brushless Fan Motor	Naoki Murakami, Hiromitsu Kuribayashi, Katsumichi Ishihara
Philippine Patent 1-2007-501692	Axial Flow Fan	Katsumichi Ishihara, Honami Osawa
South Korea Patent 10-1062710	Movable Assembly For Cylinder-Type Linear Motor	Yu Qi Tang, Satoshi Sugita
South Korea Patent 10-1072854	Linear Motor With Reduced Cogging Force	Satoshi Sugita, Kouji Misawa
Hong Kong Patent HK1112043	Axial Flow Fan	Katsumichi Ishihara, Honami Osawa
Hong Kong Patent HK1112118	Stator For Rotary Electric Machines	Masaaki Ohashi, Kouji Nakatake, Yasushi Yoda
Taiwan Patent I339705	Axial-Flow Fan Unit And Heat-Emitting Element Cooling Apparatus	Michinori Watanabe, Toshiki Ogawara, Haruhisa Maruyama
Taiwan Patent I350139	Electronic Component Cooling Apparatus	Tomoaki Ikeda, Masashi Miyazawa, Masayuki Iijima, Kouji Ueno, Co-developed with Intel Corporation
Taiwan Patent I356564	Long Life Fan Motor	Naruhiko Kudou, Hiromitsu Kuribayashi, Toshiya Nishizawa
China Patent ZL200610098888.2	Component Cooling Apparatus	Masashi Miyazawa, Toshiki Ogawara, Tomoaki Ikeda
China Patent ZL200610164714.1	Stator For Motors	Toshihito Miyashita, Hiroshi Hioki
China Patent ZL200680004265.2	Axial Flow Fan	Katsumichi Ishihara, Honami Osawa
China Patent ZL200710108746.4	Rotor For Motors	Toshihito Miyashita
China Patent ZL200710137067.X	Stator For Rotary Electric Machines	Masaaki Ohashi, Kouji Nakatake, Yasushi Yoda
China Patent ZL200710146491.0	Brushless Fan Motor	Naoki Murakami, Hiromitsu Kuribayashi, Katsumichi Ishihara

Registration Number	Name	Inventor(s)
China Patent ZL200780038422.6	Motor Rotor And Manufacturing Method Thereof	Toshihito Miyashita, Takashi Matsushita, Norihito Tanaka
China Patent ZL200780041396.2	Counter-Rotating Axial-Flow Fan	Jirou Watanabe, Toshiya Nishizawa, Yasuhiro Maruyama
China Patent ZL200810004045.0	Axial-Flow Fan	Toshiyuki Nakamura, Shigekazu Mitomo, Atsushi Yanagisawa
China Patent ZL200810092259.8	Counter-Rotating Axial-Flow Fan	Toshiya Nishizawa, Yasuhiro Maruyama, Hayato Murayama
China Patent ZL200810092266.8	Counter-Rotating Axial-Flow Fan	Honami Osawa, Katsumichi Ishihara, Toshiyuki Nakamura
China Patent ZL200810095613.2	Axial-Flow Fan With Double Impellers	Takashi Kaise, Yoshihiko Aizawa, Seiji Nishimura
Patent 4758374	Linear Motor	Satoshi Sugita, Kouji Misawa
Patent 4758512	Installation structure for electric components, and connector adapters	Takao Oshimori
Patent 4786069	Electronic Component Cooling Apparatus	Michinori Watanabe, Toshiki Ogawara, Haruhisa Maruyama
Patent 4808482	Axial-Flow Fan	Masashi Miyazawa, Toshiki Ogawara, Tomoaki Ikeda
Patent 4819762	Power Supply System And Control Method For Power Supply System	Yoshiaki Okui, Co-developed with NTT Facilities and Aichi Institute of Technology
Patent 4846350	Linear Motor	Satoshi Sugita, Kouji Misawa
Patent 4870912	Method Of Determining Pole Arc Ratio Of Interior Permanent Magnet Rotary Motor And Interior Permanent Magnet Rotary Motor	Toshihito Miyashita, Satoru Onodera
Patent 4871143	Stator For Rotary Electric Machine	Akira Koike, Ikuo Takeshita
Patent 4871189	Axial Flow Fan	Toshiyuki Nakamura
Patent 4871303	Counter-Rotating Axial-Flow Fan	Katsumichi Ishihara, Honami Osawa
Patent 4871376	Electronic Component Cooling Apparatus	Tomoaki Ikeda, Masashi Miyazawa, Masayuki Iijima, Kouji Ueno, Co-developed with Intel Corporation
Patent 4880763	Motor controller and device	Yuuji Ide, Michio Kitahara
Patent 4913849	Start-up method for utility interactive inverter devices	Minoru Yanagisawa, Takashi Kobayashi
Patent 4925720	Movable Assembly For Cylinder-Type Linear Motor	Yu Qi Tang, Satoshi Sugita, Satoru Onodera

## Internal Recognition: Invention Grand Prize (Excellence Award)

May 2011 Commendations

Prize	Title of Paper	Division	Name
Excellence Award	Method and Device for Determining Deterioration of Permanent Magnets in Electric Equipment	Servo Systems Division, 1st Design Dept. Servo Systems Division, 1st Design Dept. Servo Systems Division, 1st Design Dept.	Akihiko Takahashi Kouji Misawa Manabu Horiuchi
Excellence Award	Method and Device for Detecting the Motor Insulation Degradation	Servo Systems Division, 2nd Design Dept.	Yuuji Ide
Excellence Award	High Performance Counter Rotating Cooling Fan	Cooling Systems Division, Design Dept. Cooling Systems Division, Design Dept.	Atsushi Yanagisawa Honami Osawa