AC variable Speed Solution

CPLS

High power density induction motor

Technical expertise, high power density and flexibility

Perfectly adapted to machinery requiring high dynamic performances in a very compact design, CPLS motor has been specifically designed to offer a reliable and adaptable asynchronous variable speed solution.
Based on an IP23 design, CPLS integrates a forced ventilation insuring high continuous torque even at low speed. Its characteristics of dynamics and compactness make CPLS a particular good solution for DC motor replacement.
CPLS motor has been also developed with the aim of offering high speed possibilities in a reliable design: high speed bearings, complete winding protection to surge voltage, dedicated options according to the application. For constant power applications over a wide speed range, CPLS offers characteristics with a 1 to 2 speed ratio, in closed loop as well as open loop control.

CPLS and Unidrive M association for all processes

The range of CPLS motors, combined with the new Unidrive M inverter range fully meets the various processes requirements, with guaranteed overall performance of the motor/drive package. To ensure perfect adaptation with the drive (dv/dt withstand), the insulation system of the CPLS range has been enhanced as standard to extend its service life.

Torque and speed optimized range

CPLS range consists of 5 different frame sizes for nominal torque from 95 to 2900 Nm and speed up to 9000 rpm.

AC variable speed solution

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DRIVING PERFORMANCE

Key features

➜ **Power range:**
7,5 to 560 kW

➜ **Torque range:**
95 Nm to 2,900 Nm

➜ **Speed:**
Up to 9000 rpm

➜ **Degree of protection:**
IP23 or IP 55/IC 37
IK08

➜ Ventilation IC 06

➜ Class F insulation or Class H on demand

CPLS motor type	Nominal torque range (Nm)
112M 112L	95 -115 110 -140
132S 132M 132L	145-170 175-220 210-250
160S 160M 160L	325-380 390-490 490-700
200S 200M 200L	680-940 900-1300 1100-1550
250S 250M 250L	1570-1950 1710-2360 2300-2900

Key points

➜ **Guaranteed performance:**
Optimization, full qualification by motor-drive solution testings

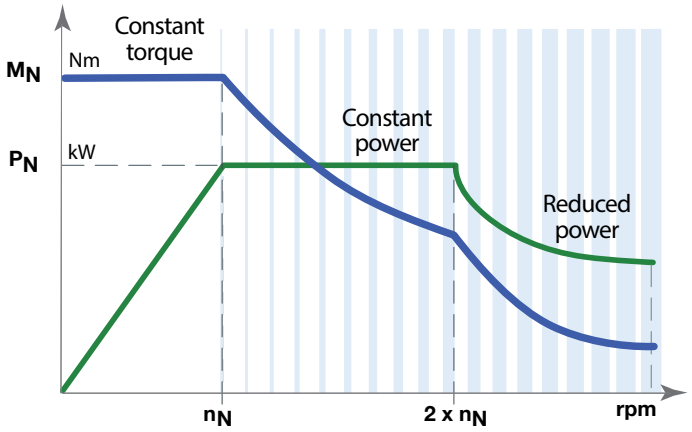
➜ **Dynamics:**
Low inertia motor

➜ **Increased productivity:**
Operation at constant power over an extended speed range with speed ratio of 1 to 2 as standard and more on demand

➜ **Compact design:**
High power density

➜ **Improved accuracy:**
Speed regulation by encoder

Performances



Applications

Test bench
Hoisting
Extrusion
Machine Tools
DC retrofit
Calendering
...

Flexibility

➜ **Adaptation to the machine:**
- high-capacity bearings, roller bearings
- multi-position
- foot or foot and flange mounted
- second shaft end
- special shaft end
- forced ventilation unit with directional or deportable terminal box.
- terminal box having 4 possible positions and compatible with high cable size with or without shield

➜ **Adaptation to difficult environments:**
- filter on forced ventilation unit: polyester or Miovyl
- air intake and outlet ducts (IC37)

➜ **Adaptation to the application:**
- encoder (incremental or absolute)
- holding and dynamic brake
- Replacement of existing DC motors

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Nidec
All for dreams