

For Immediate Release  
13/07/2023

## **Powerdrive MD Smart: the connected variable speed drive solution for high power process applications**

Thanks to a strong experience resulting from close partnerships with end-users and OEMs, Nidec Leroy-Somer is offering Powerdrive MD Smart, an all-inclusive ready-to-use drive in line with the expectations of the major players in the process market segment. Compact and robust, this 100%-connected new generation drive includes all equipment needed for protecting, controlling, interfacing and running the application up to 3800 kW with full safety.

### **A ready-to-use variable speed drive**

Powerdrive MD Smart is a complete motor control system taking into account all critical devices needed for protecting and controlling a process application, from the general low voltage distribution panel.

Delivered engineered, wired and tested, Powerdrive MD Smart offers a simple solution of which commissioning and operation do not require any specific skills.

### **A design suitable for all installations**

Always more compact, Powerdrive MD Smart is available in a wall-mount version up to 250 kW and above in free standing.

The new Powerdrive is also available either in IP21 or IP54 protection for harsh environments. IP 54 gives the possibility to fit it close to the motor independently, which provides strong assets like reduced motor shielded cable length for huge cost savings, limited EMC emission and leakage currents hence improving the overall reliability of the drive system.

Whether air- or liquid-cooled, the drive includes tropicalised electronic boards according to 3C2 as standard and protected or tin-plated connections.

For specific markets, the IP00 chassis version - UL and Bureau Veritas (BV) certified - is also available.

### **A high level of reliability and limited downtimes**

Powerdrive MD Smart is the result of a combination of rectifier and inverter modules, all of them being easily accessible and interchangeable, offering one of the best MTTR (Mean Time to Repair) on the market.

The robust design of Powerdrive MD Smart allows for operation in a range of ambient conditions and unusual temperatures such as operation up to 70°C for 1 hour by activating the fire mode input.

The drive provides clear powerful diagnostic tools allowing to quickly identifying the root cause of a trip and eventually a faulty component.

An on-board recorder on an SD card makes it possible to analyse a system behaviour in real time.

### **Easy commissioning and user-friendly parameter setting thanks to Systemiz**

Powerdrive MD Smart is fitted with a 7" colour touch interface including the Systemiz application. A unique all-in-one app, Systemiz provides a simple and convenient use, from commissioning to operations, by means of oscilloscope functions and innovative monitoring tools able to initiate the appropriate corrective actions.

By digitizing the QR code on the nameplate of the Dyneo+ motor controlled by Powerdrive MD Smart, Systemiz offers instantaneous access to motor data for a quick, simplified and intuitive configuration, as well as product documentation.

The Systemiz application, similar for Smart phones and PCs, is free in its integral version.

### **High-efficiency and energy savings with Nidec Leroy-Somer motors**

Powerdrive MD Smart has been designed and tested to perfectly match IE3 and IE4 induction motors in the IMfinity® range.

But it is above all with IE5 Dyneo+ permanent magnet-assisted synchronous reluctance motors that Powerdrive MD Smart best demonstrates its assets: the motor & drive assembly provides optimum energy performance for the control of process applications (pumps, fans, compressors), even at partial load.

## **A high-power solution in short lead time**

The Powerdrive MD Smart is part of the Express Availability offer, the Nidec Leroy-Somer Service which ensures rapid delivery.

Currently, the models in ratings 150T to 1140T, 400 V, 6-Pulse are available within 10 days. The rest of the product line will be gradually integrated into the Express Availability program throughout the year.

Further information and related documentation can be found on:

<http://mdsmart-en>

**END**

### **About Nidec**

Nidec was established in Kyoto, Japan in 1973 by its Chairman, President and CEO Shigenobu Nagamori. In 1979, Nidec became the first company in the world to successfully commercialize a direct drive spindle motor for HDDs based on a brushless DC motor. Since then, the Company has grown into a world-leading comprehensive motor manufacturer encompassing approximately 340 subsidiaries employing 120,000 people throughout the world and with annual sales of about US\$ 22.4 billion. Nidec's motors, drives, generators and related products are found in a diverse range of applications including computers, smartphones, home appliances, automobiles, manufacturing plants, robots and more.

### **About ACIM**

Nidec Appliance, Commercial and Industrial Motors (ACIM) is a Nidec Corporation business unit that holds three Platforms: Global Appliance (GA), U.S Motors (USM), and Commercial & Industrial (C&I). With over 20,000 employees and more than 30 manufacturing sites in 25 countries, it is the largest division in terms of sales in side Nidec Group. ACIM has a vast portfolio that covers compressors, condensing units, and motors for home and commercial appliances, as well as motors and electronic drives for commercial, residential, industrial, and utilities applications. This comprehensive set of solutions is characterized by high standards of quality and energy efficiency, delivering innovation at the service of sustainability.

### **About Leroy-Somer**

Leroy-Somer is one of the world's leading manufacturers of electric motors and associated electronics, as well as the world leader in industrial alternators. The company which was established in 1919 in France and employs around 6200 people worldwide has become part of the Nidec Group in 2017.