Simotics HV C air-cooled: Innovative cooling concept for greater power density

- New cooling concept combines cooling fins and tubes
- Greater power density, longevity and reliability due to improved temperature distribution and vibration-optimized, robust housing
- Outstanding flexibility for customer interfaces
- Connection to the Sidrive IQ digital platform with Simotics Connect 600

The Simotics HV C air-cooled range from Siemens completes the Simotics HV C platform for compact high-voltage motors up to 3.2 megawatts (MW). The innovative cooling concept, involving a clever combination of fin and tube cooling, delivers improved temperature distribution in the motor, thus increasing the power density significantly. With their vibration-optimized, robust housing design, the Simotics HV C air-cooled motors score highly in terms of increased reliability. The new high-voltage motors feature an enclosed internal circulation (IC 411) and are equally suitable for use in areas where there is no danger of explosions (safe areas) and areas where explosions are not likely to occur (explosion protection zone 2) as well as being available in ignition-proof types Ex ec and Ex tc. The motors can be connected to the Sidrive IQ digital platform using the Simotics Connect 600 connector box: This provides access to cloud-based analysis of the condition data which allows the drive system to be optimized. The compact motors are used in pumps, fans, compressors, extruders, grinders, stirrers, mixers, conveyors and rollers in industries as diverse as energy, chemical, cement, paper and pulp, and mining.

The increased performance density is based on the new cooling concept: Tube cooling elements, which have proven themselves over decades in the most demanding conditions, have been integrated by Siemens into the high-voltage...
motor’s rib-cooled housing. The motor cooling is improved by the addition of a modern fan design – unlike conventional methods, this reduces the internal temperature of the motor considerably. This provides a compact and light-weight motor design which increases performance by up to 15 percent and extends the operating life of components without changing the overall size. The highly flexible motor design allows it to be matched to customer interfaces on a project-by-project basis, for example, the connection leads can be located in many different positions. Due to a standardized design and management principle for compact, air-cooled motors with or without explosion protection, the cost is reduced across the whole lifecycle – from planning and procurement, through engineering and plant integration, to service, warehousing and spare parts management. Extended maintenance intervals and service times increase the availability of the drive system and thus the whole plant. Simotics HV C air-cooled motors from Siemens extend the range beyond the existing flameproof and water-jacket-cooled designs.

**Simotics Connect 600: The interface to the digital world**

Simotics HV C motors are an integral component of Sidrive IQ, the digital platform for optimizing drive systems. The Simotics HV C motors have an optional connectivity module for integration into the digital, cloud-based solution. This uses temperature and vibration sensors to capture and process data such as bearing temperatures, winding temperatures, and housing vibrations and transmits this information for analysis in the cloud. The connectivity module Simotics Connect 600 used on the Simotics HV C is specifically adapted to the requirements of Sidrive IQ. Sidrive IQ uses the data received to monitor, analyze and optimize the Simotics HV C motor drive: This increases the availability, efficiency and performance of the motors and improves service efficiency. As Simotics HV C motors are frequently used as part of the core process of a plant or system, connecting to Sidrive IQ increases the transparency of the drive system significantly, thus providing productivity gains for the whole system.
With Simotics HV C air-cooled, Siemens completes the Simotics HV C platform for compact high-voltage motors. The motors can be connected to the Sidrive IQ digital platform using the Simotics Connect 600 connector box.

This press release and a press picture are available at [www.siemens.com/press/PR2018110057PDEN](http://www.siemens.com/press/PR2018110057PDEN)

For further information on Simotics HV C, please see [www.siemens.com/simotics-hv-c](http://www.siemens.com/simotics-hv-c)

**Contact for journalists**

Stefan Rauscher
Phone: +49 911 895-7952; E-mail: stefan.rauscher@siemens.com
Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for 170 years. The company is active around the globe, focusing on the areas of electrification, automation and digitalization. One of the world’s largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of efficient power generation and power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. With its publicly listed subsidiary Siemens Healthineers AG, the company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2017, which ended on September 30, 2017, Siemens generated revenue of €83.0 billion and net income of €6.2 billion. At the end of September 2017, the company had around 377,000 employees worldwide. Further information is available on the Internet at www.siemens.com.