



NEWS RELEASE

FOR IMMEDIATE RELEASE

Contact: John Wranovics
M: 925.640.6402
jwranovics@curtisswright.com

Curtiss-Wright Introduces Next Generation Single Axis Servo Controller to Deliver High Power Precision Motion Control and Stabilization

New compact/lightweight NC120A Nano Motion Controller outputs >3 kW and speeds system development with proven off-the-shelf solution

DSEI 2021, ExCeL, LONDON, UK, – September 14, 2021 – [Curtiss-Wright's Defense Solutions division](#) (Bays 22-26 ExCeL Exhibition Centre), a proven supplier of [precision motion control systems](#) engineered to succeed, today introduced a new single-axis servo controller ideal for use in precision drive systems with size, weight, and power (SWaP) constraints. The [NC120A Nano Motion Controller](#) is an exceptionally compact (5.4 x 5.3 x 3.8 in/138 x 135 x 97mm) and lightweight (<5 lbs/2 kg) unit that generates 120 A of peak current with 28 V input power to deliver more than 3 kW of power. The NC120A provides system designers with a compelling off-the-shelf alternative to the cost and time required for custom motion controller development, or for larger, heavier multi-component motion controller designs, since it eliminates the need for an external load dump and higher voltage power supply or additional DC/DC converter. System designers can combine three of the scalable NC120A controllers to control up to three axes. Built rugged for integration into deployed mobile platforms, the unit is designed to provide optimal performance in extremely demanding motion controller applications.

“For many decades, Curtiss-Wright has been a leading supplier of field-proven precision motion control and stabilization systems,” said Chris Wiltsey, Senior Vice President and General Manager, Curtiss-Wright Defense Solutions. “With the introduction of our new Nano Motion Controller, we further extend our commitment to the motion control arena. This unit leverages our expertise in modular, scalable pre-engineered motor controllers to provide high power, precise control in a small, lightweight design. Even better, since it’s based on field tested and proven components, the Nano Motion Controller helps customers accelerate their time to market.”

The NC120A provides ultra-low latency motion control and stabilization based on modular open system approach (MOSA) electronics. The NC120A's modular architecture enables it to adapt to the widest range of platform and system requirements, including modular control loops for stabilization, position, speed and current. For short-burst peak power applications, such as those required by autoloaders, camera cranes, or remote weapons stations with small-caliber turrets, a low power variant of the NC120A is available. Alternatively, the high voltage variant of the unit provides up to 18 kW of short-burst peak output power, ideal for platforms such as guided weapon control systems equipped with a high voltage power supply. That makes the NC120A a compelling motion control solution for remote weapons stations with medium caliber turrets or autoloaders for larger caliber weapon systems (up to 57 mm).

The intelligent motion controller, which features a built-in SoC and FPGA, is easily modified to meet unique customer requirements. For maximum flexibility, the motion controller supports a wide variety of I/O, including high-speed, low-latency RS-422/RS-485, CAN interfaces, digital inputs and outputs (analog I/O is optional), as well as Generic Vehicle Architecture (GVA) Gigabit Ethernet and USB interfaces. For applications that require extreme operating temperatures, the NC120A is also available in a water-cooled configuration. The unit can be configured in MIL-STD qualified housing or as a modular integration package.

The highly rugged solution is engineered to military standards including MIL-STD-1275 for power systems, MIL-STD-461 for EMC and EMI testing, and MIL-STD-810 for environmental engineering, to ensure optimal performance in harsh environments. It also meets functional safety measures that comply with IEC 61800 SIL 2 and IEC 61508 SIL 2 for operational safety. The NC120A is well suited for a wide variety of applications, including remote weapon stations, ammunition loaders, missile launcher drive systems, mortar drive systems, small-size integrated drive systems, and for general-purpose motion control.

To learn more about Curtiss-Wright's motion control and stabilization products, please click [here](#).

For additional information, please visit www.curtisswrightds.com, LinkedIn, and Twitter @CurtissWrightDS.

About Curtiss-Wright Corporation

Curtiss-Wright Corporation (NYSE:CW) is a global innovative company that delivers highly engineered, critical function products and services to the Aerospace and Defense markets, and to the Commercial markets including Power, Process and General Industrial. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing reliable solutions through trusted customer relationships. The company employs approximately 8,200 people worldwide. For more information, visit www.curtisswright.com. For more information, visit www.curtisswright.com.

###

NOTE: All trademarks are property of their respective owners.