



## **SERVOPAK**

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### **DRIVE SYSTEMS**

## **ServoPak NC3**



**High performance DC Servo Drive Systems for either cantilever or gantry shape-cutting machines.**

- Available in 250 watt, 540 watt and 990 watt configurations.
- Available separately or in performance-matched motor/gearbox combinations.
- Available in globally compatible voltages.
- Three-axis integrated design.
- Plug-in compatibility with other ServoPak 150/360/720 models.
- CE compliant.

### **Performance Benefits**

ServoPak® NC3 Drive Systems blend high performance operation, high quality cut capabilities and reliability. They offer fast response, low power consumption and a wide dynamic speed range. ServoPak NC3 Drive Systems are available from Cleveland Motion Controls and part of the BURNY® Products family, internationally recognized shape cutting controls and drive systems that improve productivity and reduce costs.

ServoPak NC3 Drive Systems are available as separate power sources or in performance-matched motor/gearbox combinations, accommodating most cantilever and gantry shape-cutting machines. They are performance proven in applications around the world. ServoPak NC3 Drive Systems are CE compliant.

### **Design Features**

ServoPak NC3 Drive Systems are highly efficient four-quadrant pulse-width-modulated (pwm) bridge servo systems that are available in 250 watt, 540 watt and 990 watt configurations. They also have plug-in compatibility with other ServoPak Drive Systems, specifically the ServoPak 150, 360 and 720 models.

ServoPak NC3 Drive Systems have three-axis integrated designs and globally compatible voltages (jumper selectable): 115 or 230 VAC  $\pm 10\%$  and 50/60 Hz operation. They are manufactured with surface-mount technology to ensure high quality and reliability, have built-in fault detection systems for diagnostic control, and are encased in heavy-duty enclosures to withstand even the harshest of cutting environments.

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# ServoPakNC3

High performance  
DC Servo Drive  
Systems for either  
cantilever or gantry  
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## SERVOPAK NC3 MODEL NUMBER RATINGS

Model	Rated Voltage	Rated Current	Peak Current
SP 250	60 V	5 A	10A
SP 540	90 V	6 A	12A
SP 990	90 V	12 A*	24A

\*If all three axes are running simultaneously then rated current is 11A, 11A, 8A (axis X, X and Y).

## SERVOPAK NC3 PHYSICAL DIMENSIONS (ALL MODELS)

Main Servo Enclosure	20 in. X 14 in. X 11 inches. Nema 2 non-ventilated, IP 61
Transformer Enclosure	12 in. X 9 in. X 6.38 inches. Nema 1, IP 21

## STANDARD DESIGN, CONSTRUCTION, AND FUNCTIONAL SPECIFICATIONS

Specifications	Model 250	Model 540	Model 990
AC Input Voltage	Jumper-selectable 115/230 VAC, ±10%, 47-63 Hz	Jumper-selectable 115/230 VAC, ±10%, 47-63 Hz	Jumper-selectable 115/230 VAC, ±10%, 47-63 Hz
AC Input Current	115 VAC: 8 A 230 VAC: 4 A	115 VAC: 15 A 230 VAC: 7.5 A	115 VAC: 24 A 230 VAC: 12 A
Input Power	Leading: .85	Leading: .85	Leading: .85
Short Circuit Rating	Suitable for use on a circuit that can supply 10,000 amps max, 115/230 VAC	Suitable for use on a circuit that can supply 10,000 amps max, 115/230 VAC	Suitable for use on a circuit that can supply 10,000 amps max, 115/230 VAC
AC Field Wiring Copper Conductors Only	14 gauge (2.5 mm <sup>2</sup> ) 60° C rated wire, protected by UL Class K5 15 A fuse or equivalent	12 gauge (4 mm <sup>2</sup> ) 60° C rated wire, protected by UL Class K5 20 A fuse or equivalent	10 gauge (6 mm <sup>2</sup> ) 60° C rated wire protected by UL Class K5 30 A fuse or equivalent
Output Voltage (each axis)	PWM 10 kHz modulated standard; or PWM 20 kHz modulated optional: 40-68 VPP	PWM 10 kHz modulated standard; or PWM 20 kHz modulated optional: 80-128 VPP	PWM 10 kHz modulated standard; or PWM 20 kHz modulated optional: 80-128 VPP
Output Current (each axis)	dc to 2kHz at 5 A average 10 A average for 1 second	dc to 2kHz at 6 A average 12 A average for 1 second	dc to 2kHz at 12 A average 24 A average for 1 second
Output Current (Comb. rating)	same as individual axis rating	same as individual axis rating	11 A, 11 A, 8 A continuous (axis X, X', Y respectively)
Nominal servo HV bus	50 Vdc	90 Vdc	90 Vdc
Ambient Temperature	0° to 50° C operating -30° to 65° storage	0° to 50° C operating -30° to 65° storage	0° to 50° C operating -30° to 65° storage
Relative Humidity	95% non-condensing	95% non-condensing	95% non-condensing
Operating Environment	Pollution Degree 3	Pollution Degree 3	Pollution Degree 3
Power Loss	150 W	120 W Servo Enclosure 70 W Transformer Enclosure	240 W Servo Enclosure 90 W Transformer Enclosure
Unit Weight	64 lbs./29 kg.	52 lbs./24 kg. Servo Enclosure 39 lbs./18 kg. Trans. Enclos.	52 lbs./24 kg. Servo Enclosure 52 lbs./24 kg. Trans. Enclos.
Tachometer Feedback	0 to 80 Vdc	0 to 80 Vdc	0 to 80 Vdc