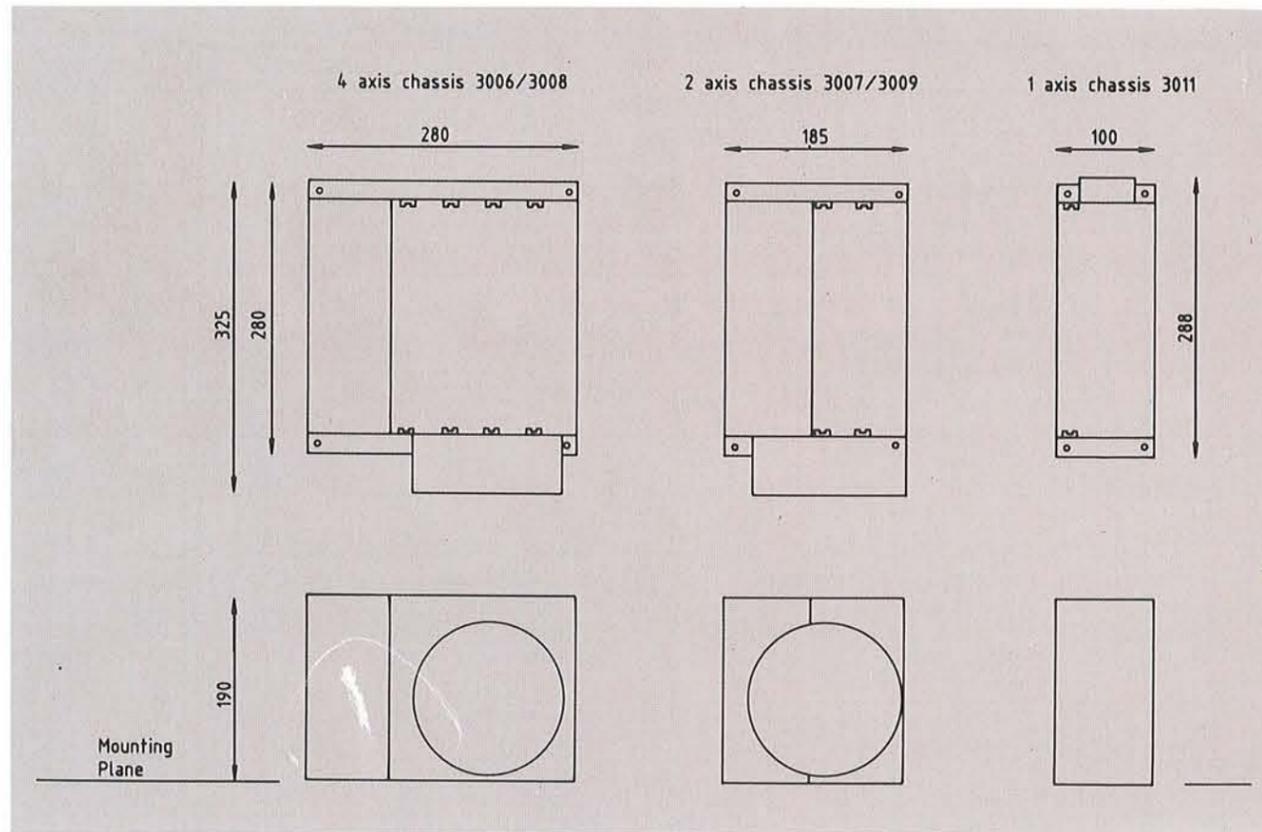


dimensions



norwin
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The Company reserve the right to modify this equipment without notice

Nov/87

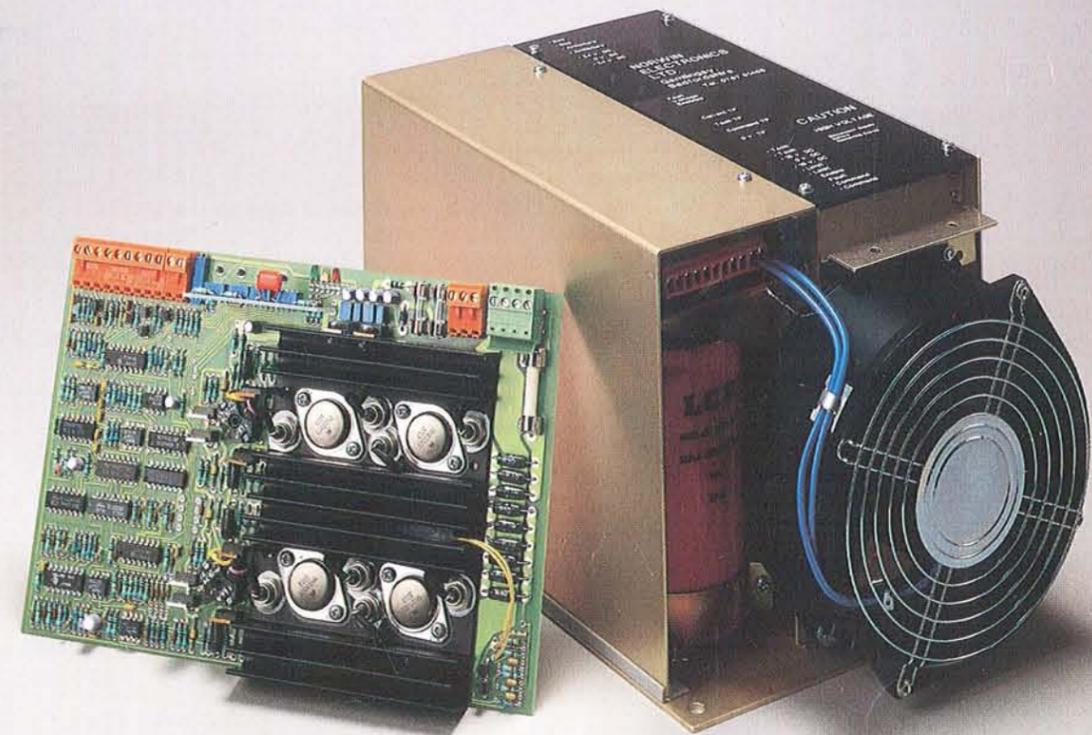
norwin
ELECTRONICS LIMITED

series NE2000

servo drive systems : one to four axes

transistor controllers: NE2110 and NE2120

each axis up to 30A peak at 180V.



transistor controller series NE2000

description

The series 2000 range of servo controllers has been designed especially for use in high performance, low cost servo systems employing permanent magnet d.c. servo motors.

Featured here are the NE2110 and NE2120 servo controllers together with a range of power supplies and chassis to cover the range 15A continuous 30A peak at bus voltages of 100 and 180V d.c.

These units offer all the control and response features necessary in modern servo systems viz:-

- PWM switching techniques.
- Four quadrant control.
- High dynamic performance.
- Smooth motor control, without cogging.

Furthermore, the systems are:-

- Easy to install.
- Easy to set-up.
- Fully protected.

and have a proven reliability.

protection features

- Fused Bus Supply.
- Fused Bias Supplies.
- Heatsink over-temperature trip.
- Armature over-current trip.
- Armature short circuit trip.
- Armature fold back or trip (selectable).
- Bus supply over/under voltage detect.
- Bias supplies under voltage detect.

drive status

Three status LED's indicate the following conditions:-

- Red - Fault latch activation
- Yellow - Supplies healthy
- Green - Unit enabled

set-up

Ease of set-up was one of the main objectives during the design of the series 2000 range of servo controller.

All major parameters are set or adjusted on a Plug-In Personality Module. Standard modules are fitted with potentiometers allowing full control of all parameters. Special modules are available where the potentiometers are replaced by fixed resistors thereby minimising the amount of on-site adjustments during the commissioning of systems.

The following parameters are set on the personality module:-

- Command gain (Potentiometer)
- Tach gain (Pot./fixed resistors)
- Peak current (Pot./fixed resistors)
- Continuous current (Fixed resistors)
- Velocity Stability (Pot./fixed resistors)

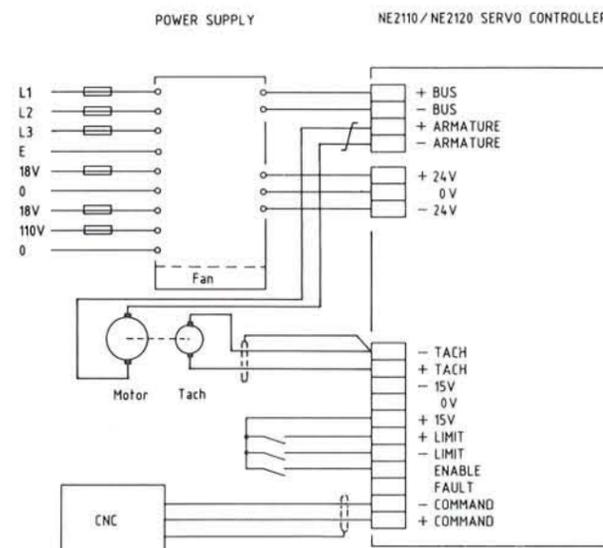
The only other adjustment is the system offset which is by means of a multiturn potentiometer on the main card.

Should a unit need to be replaced, the personality module from the old unit is simply swapped over to the new unit leaving only the offset to be finally adjusted.



1 axis chassis including power supply

a typical connection diagram



specifications

amplifier

Type	NE2110	NE2120
Bus Voltage (max.)	100V d.c.	180V d.c.
Continuous Current	15A	15A
Peak Current	30A	30A
Minimum Armature Inductance	1.5mH	2.0mH
Switching Frequency	10kHz	8kHz
Control Inputs:	(a) Command (b) Tach (c) Enable (d) + Limit (e) - Limit	
	±10V Differential I/P single-ended I/P Switch to +15V d.c. to enable the unit.	
Control Outputs:	(a) Fault (b) Auxiliary voltages	
	Open collector NPN transistor O/P. Maximum load 50mA. O/P switches off during fault condition. ±15V d.c., 100mA available for external use.	
Operating Temperature	0 to +50°C	
Storage Temperature	-20 to +70°C	

power supply - chassis

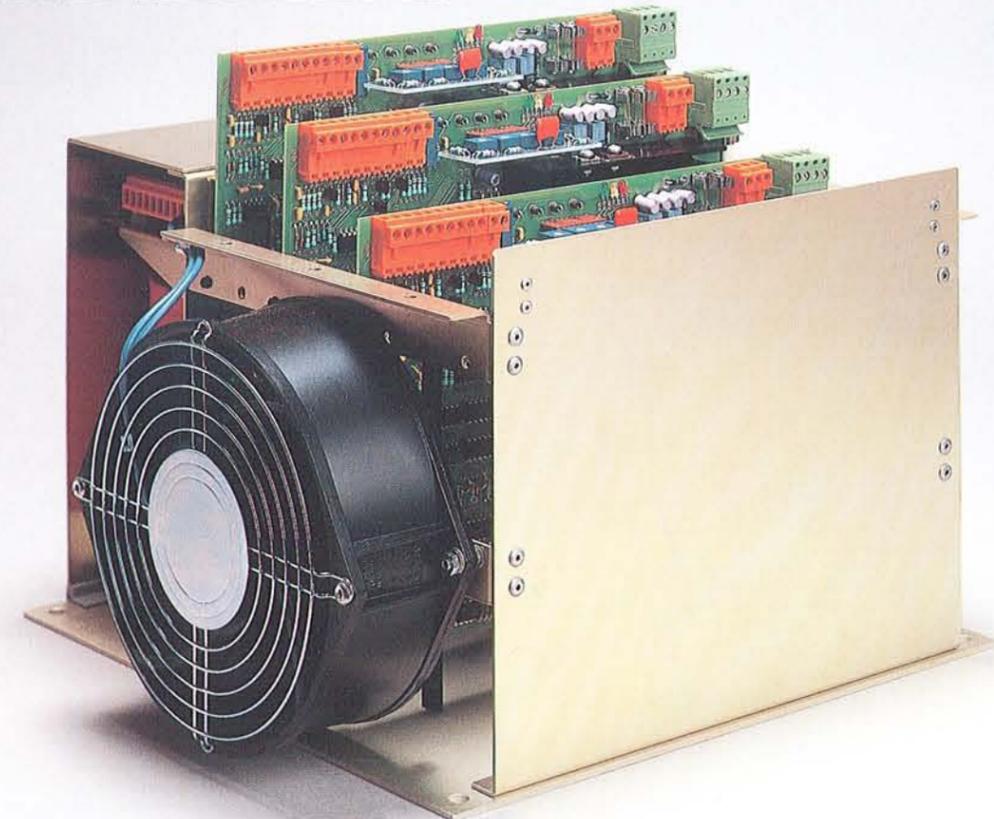
Type	3006	3007	3008	3009	3011
Axes	4	2	4	2	1
Continuous Current	60A	60A	35A	35A	15A
Bus Voltage (max.)	180V	180V	180V	180V	180V
Height O.A. (mm)	325	325	325	325	288
Width (mm)	280	185	280	185	100
Depth (mm)	190	190	190	190	190

options on 3008 and 3009:

- 3 phase contactor.
- 24V d.c. unregulated auxiliary supply.
- DC-DC convertor module for operation from 24V battery supply.

related products

- Shunt Bus Regulators.
- D.C. Servo Motors.
- Power transformers.
- Chokes.



4 axis chassis including power supply