NOTES: 1) INTERNAL 2000 LINE ENCODER, 8000 COUNTS PER REVOLUTION
INDEX LINE ON ENCODER WHEEL
2) MATING CONNCETOR IS A HIGH DENSITY 26 PIN FEMALE D-SUB CONNECTOR
NORCOMP PART# 180-026-202-001 (SOLDER CUP CONNECTION) OR SIMILAR.).
3) DIMENSIONS ARE NOMINAL UNLESS OTHERWISE INDICATED.

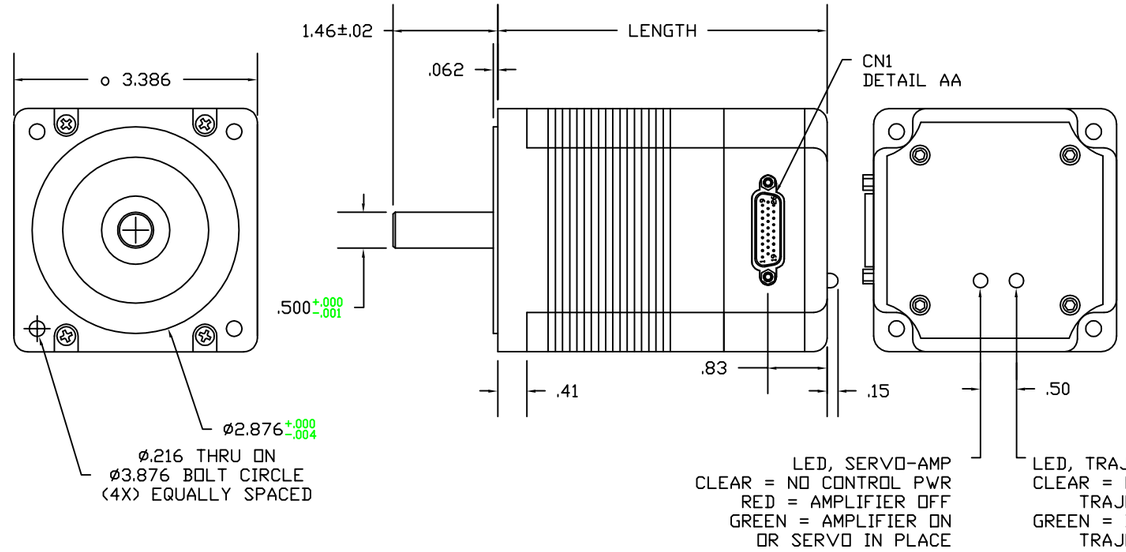
PART NO.
P/N

DRAWING REVISIONS		
DWG REV	DESCRIPTION	DATE

INPUT OUTPUTS PINS			
PIN#	NAME	FUNCTION	DESCRIPTION
1	IO A	DIGITAL I/O	5V TTL, INPUT: SINK 5mA/OUTPUT: SINK 10mA, SOURCE 5mA
		ANALOG IN	SINKING INPUT, 0 TO 5VDC 10-BIT RESOLUTION
2	IO B	DIGITAL I/O	5V TTL, INPUT: SINK 5mA/OUTPUT: SINK 10mA, SOURCE 5mA
		ANALOG IN	SINKING INPUT, 0 TO 5VDC 10-BIT RESOLUTION
3	IO C	LIMIT INPUT (POSITIVE DIRECTION)	SINKING INPUT 5mA, TRIGGER HIGH DIRECTIONAL LIMIT
		DIGITAL I/O	5V TTL, INPUT: SINK 5mA/OUTPUT: SINK 10mA, SOURCE 5mA
		ANALOG IN	SINKING INPUT, 0 to 5Vdc 10-Bit RESOLUTION
4	IO D	LIMIT INPUT (NEGATIVE DIRECTION)	SINKING INPUT 5mA, TRIGGER HIGH DIRECTIONAL LIMIT
		DIGITAL I/O	5V TTL, INPUT: SINK 5mA/OUTPUT: SINK 10mA, SOURCE 5mA
		ANALOG IN	SINKING INPUT, 0 to 5VDC 10-BIT RESOLUTION
5	IO E	DIGITAL I/O	5V TTL, INPUT: SINK 5mA/OUTPUT: SINK 10mA, SOURCE 5mA
		ANALOG IN	SINKING INPUT, 0 to 5VDC 10-BIT RESOLUTION
6	IO F	DIGITAL I/O	5V TTL, INPUT: SINK 5mA/OUTPUT: SINK 10mA, SOURCE 5mA
		ANALOG IN	SINKING INPUT, 0 to 5VDC 10-BIT RESOLUTION
7	IO G	GO-SYNCHONIZATION	5V-TTL, INPUT: SINK 5mA "G" COMMAND ISSUED WHEN PIN IS SINKED
		GOSUB2 ON INTERRUPT	GOES TO SUBROUTINE C2 WHEN PIN IS IF COMMAND F=64 IS ISSUED. 5V-TTL, INPUT: SINK 5mA
		DIGITAL I/O	5V-TTL, INPUT: SINK 5mA OUTPUT: SINK 10mA, SOURCE 5mA
		ANALOG IN	SINKING INPUT, 0 to 5Vdc 10-Bit RESOLUTION
14	BRK	BRK OUTPUT	BRAKE SIGNAL OUTPUT. TTL COMPATIBLE 3V, SOURCE/SINK 4mA. DRIVES TO GND TO ENGAGE BRAKE
15	Bt	Bt OUTPUT	TRAJECTORY SIGNAL OUT TTL COMPATIBLE 3V, SOURCING/ SINK 4mA. DRIVES TO GND WHEN NON-TRAJECTORY (Bt is 0)
16	5Vdc	+5VDC OUT	+5VDC REFERENCED TO TTL I/O. MAX LOAD: 200 mA
23	Bo	GND	Bo SIGNAL OUT TTL COMPATIBLE 3V, SOURCE/SINK 4mA DRIVES TO GND WHEN AMPLIFIER IS ON, Bo is 0
24	Pc	CONTROL PWR	CONTROL POWER INPUT (20-35VDC)
8	GND	GROUND INPUT (RETURN)	MAIN GROUND (INTERNALLY CONNECTED PINS 8, 17 AND 25)

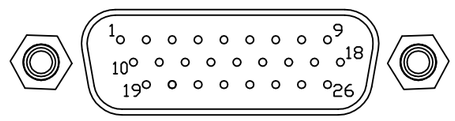
COMMUNICATION AND ENCODER PINS			
10	ENC A	ENC A IN	SINKING INPUT 10mA (ISOLATED)
		STEP INPUT	MAX FREQUENCY IS 2MHz WITH 500 OHM IMPEDANCE
11	ENC B	ENC B IN	SINKING INPUT 10mA (ISOLATED)
		DIR INPUT	MAX FREQUENCY IS 2MHz WITH 500 OHM IMPEDANCE
13	RS485 A	RS485 A	RS-485-A (ISOLATED)
21	RS485 B	RS485 B	RS-485-B (ISOLATED)
19	ENC A OUT	ENC A OUT	ENCODER A OUTPUT (ISOLATED)
20	ENC B OUT	ENC B OUT	ENCODER B OUTPUT (ISOLATED)
12	GND (ISO)	GND (ISO)	ISOLATED GROUND REF. (COMMON GROUND FOR RS485 ANC ENC SIGNAL)
22	5Vdc (ISO)	5Vdc (ISO)	+5VDC REF. (ISOLATED) MAX LOAD 40mAMPS

Power			
9 18 26	PWR	AMPLIFIER POWER INPUT	AMPLIFIER POWER INPUT (20-85VDC)
8 17 25	GND	GND INPUT (RETURN)	MAIN GROUND (INTERNALLY CONNECTED PINS 8, 17 AND 25)



		MODEL		
SPECIFICATION	UNITS	ST3410	ST3420	SS LONG
Continuous Torque	oz-in	372	727	1105
Peak Torque	oz-in	372	789	1133
Power	Hp	0.131	0.155	0.139
No Load Speed	rpm	1600	1600	1500
Encoder Resolution	Counts	8000	8000	8000
Rotor Inertia	oz-in-sec²	0.0226	0.0481	0.0707
Weight	LB	6.2	9.7	13.2
Length	in	5.0	6.5	8.0
Thermal Limit	°C	85	85	85

CN1: POWER, COMMMUNICATION AND IO CONNECTOR
MALE, HI-DENSITY 26PIN D-SUB, SHELL SIZE 2



DETAIL AA
NOTE TO SCALE

ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				

UNLESS OTHERWISE SPECIFIED,DIMENSIONS & TOLERANCES ARE PER ANSI Y14.5M AND ARE IN INCHES. TOLERANCES ARE AS FOLLOWS:
DECIMALS .XX± .01 ANGLES ± ANGTOL
.XXX± .005 .XXXX±.XXXX

THIRD ANGLE PROJECTION

Servida Corporation

MATERIAL	DRAWN	DATE
MATERIAL		8/18/04

TITLE: SERVO_STEP GENERAL

FINISH	SCALE	SIZE	COMPUTER GENERATED DRAWING	PART NO.	DWG REV
FINISH	1/2	B		P/N	1

SIMILIAR TO: PART	CAD FILE NAME CADFILE	SHEET
		1_OF_1