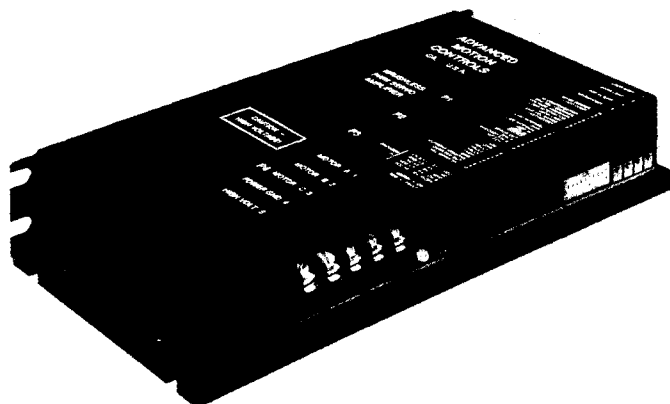


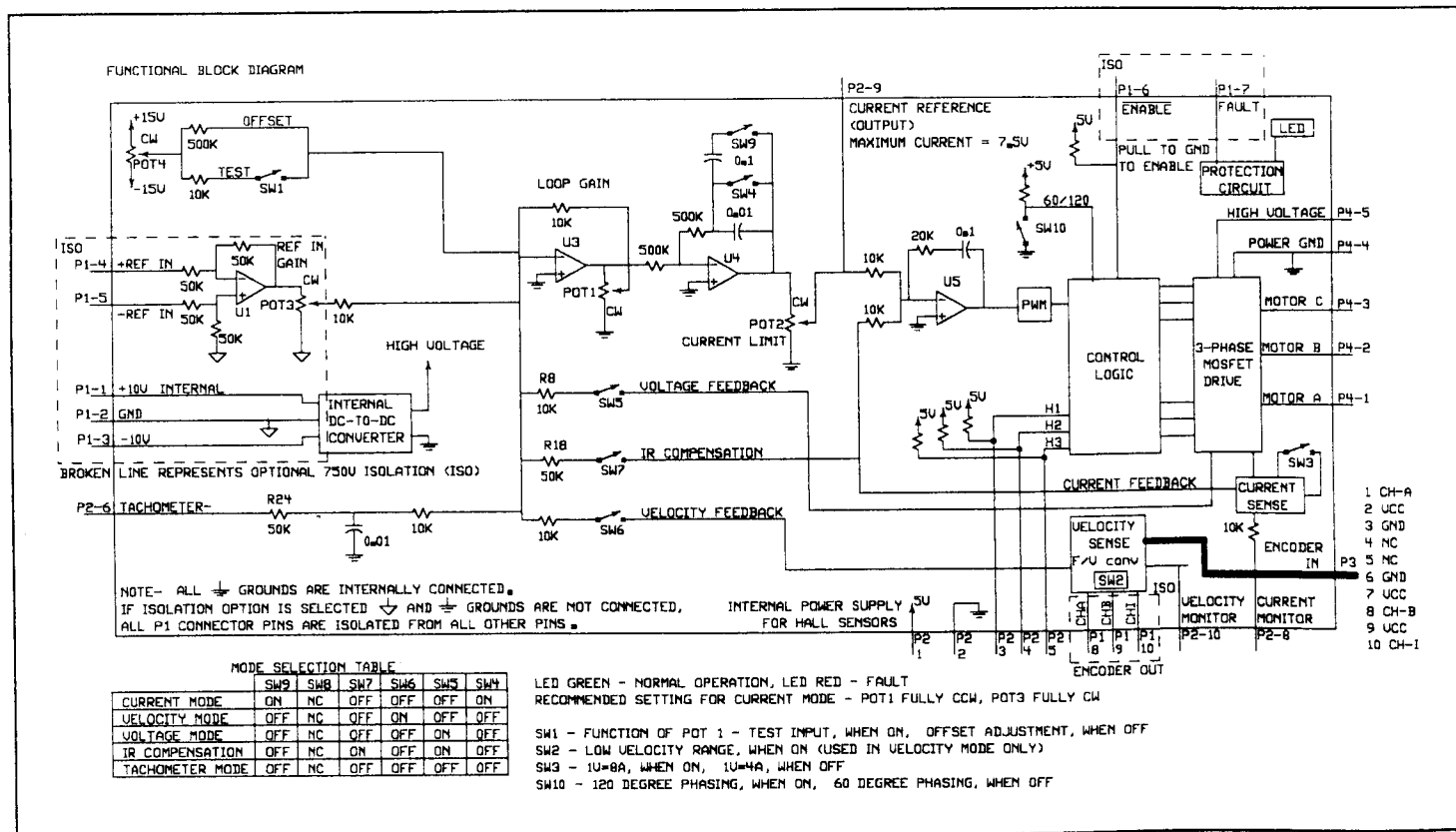
## B50A SERIES PWM SERVO AMPLIFIERS MODELS: B50A8, B50A20

**FEATURES:**

- \* Surface-mount technology
- \* Small size, low cost, ease of use
- \* Optional input signal isolation for off-the-rectified 120 VAC line operation
- \* DIP switch selectable: current, velocity, open loop control
- \* Four quadrant regenerative operation



**DESCRIPTION:** B50A Series PWM servo amplifiers are designed to drive brushless DC motors at a high switching frequency. Operating efficiency is 97%. All models are fully protected against over-voltage, over-current, over-heating and short-circuits. All models interface with digital controllers or can be used as a stand-alone system. They require only an unregulated single power supply. Loop gain, current limit, input gain and offset can be adjusted using 15-turn potentiometers. The offset adjusting potentiometer can also be used as an on-board input signal for testing purposes, when SW10 (DIP switch) is "On".



ADVANCED MOTION CONTROLS  
3211 Corte Malpaso Unit 407, Camarillo, CA 93012

Tel: (805) 389-1935, Fax: (805) 389-1165

POWER STAGE SPECIFICATIONS	MODELS	
	B50A8	B50A20
SUPPLY VOLTAGE	20-80V	30-200V
MAXIMUM PEAK CURRENT	$\pm 50A$	$\pm 50A$
MAXIMUM CONTINUOUS CURRENT	$\pm 25A$	$\pm 25A$
MINIMUM LOAD INDUCTANCE	150 $\mu$ H	250 $\mu$ H
SWITCHING FREQUENCY	33 kHz	
THERMAL REQUIREMENTS: Case Temperature	-25°C to +65°C, current reduced if over +65°C	

OUTPUT SPECIFICATIONS		
POWER SUPPLIES:	+10V P1- 1	5mA, short circuit protected
	-10V P1- 3	
	+5V P2- 1	
CURRENT REFERENCE:	P2- 9	Maximum current = 7.5V
CURRENT MONITOR:	P2- 8	1V=8A when SW3=ON, 1V=4A when SW3=OFF
VELOCITY MONITOR:	P1-10	10 kOhm

INPUT SPECIFICATIONS		
HALL SENSORS:	P2- 3,4,5	TTL, internal pull-up resistors
$\overline{\text{INHIBIT}}$ :	P1- 6	TTL, internal pull-up resistor, pull to ground to inhibit amplifier
TACHOMETER:	P2- 6	Maximum $\pm 60V$ analog, 60K input resistance
INPUT:	P1- 4,5	Differential analog input, maximum $\pm 10V$ , 50K input resistance

MECHANICAL SPECIFICATIONS	
POWER CONNECTOR	Screw terminal
SIGNAL CONNECTOR	Phoenix or molex connector
SIZE (inches)	5.06 x 10.00 x 1.70
WEIGHT	2.5 lb

MOUNTING DIMENSIONS

