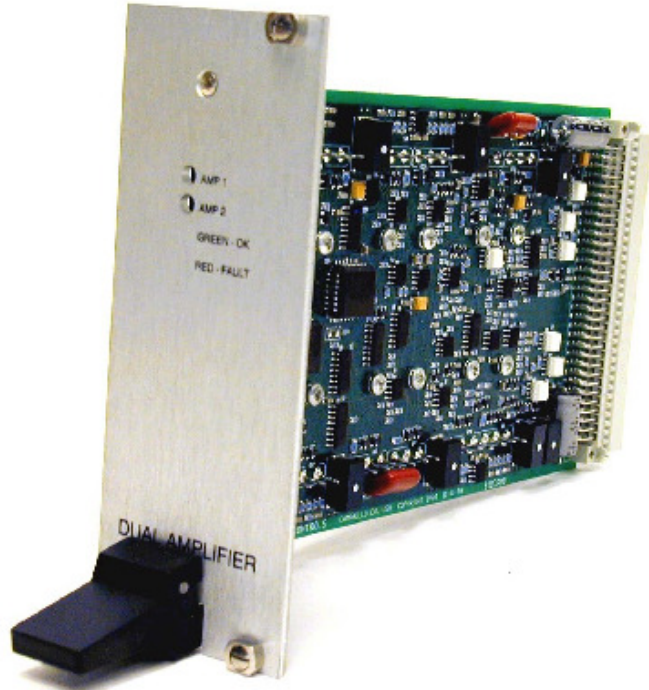


B12CAM BRUSHLESS SERVO AMPLIFIERS Model: B12CAM

FEATURES:

- Surface-mount technology
- Small size, low cost, ease of use
- Dual axis, current mode
- Both brushed and brushless motors
- Trapezoidal commutation from Hall sensors
- Digital input signal isolation
- Four quadrant regenerative operation



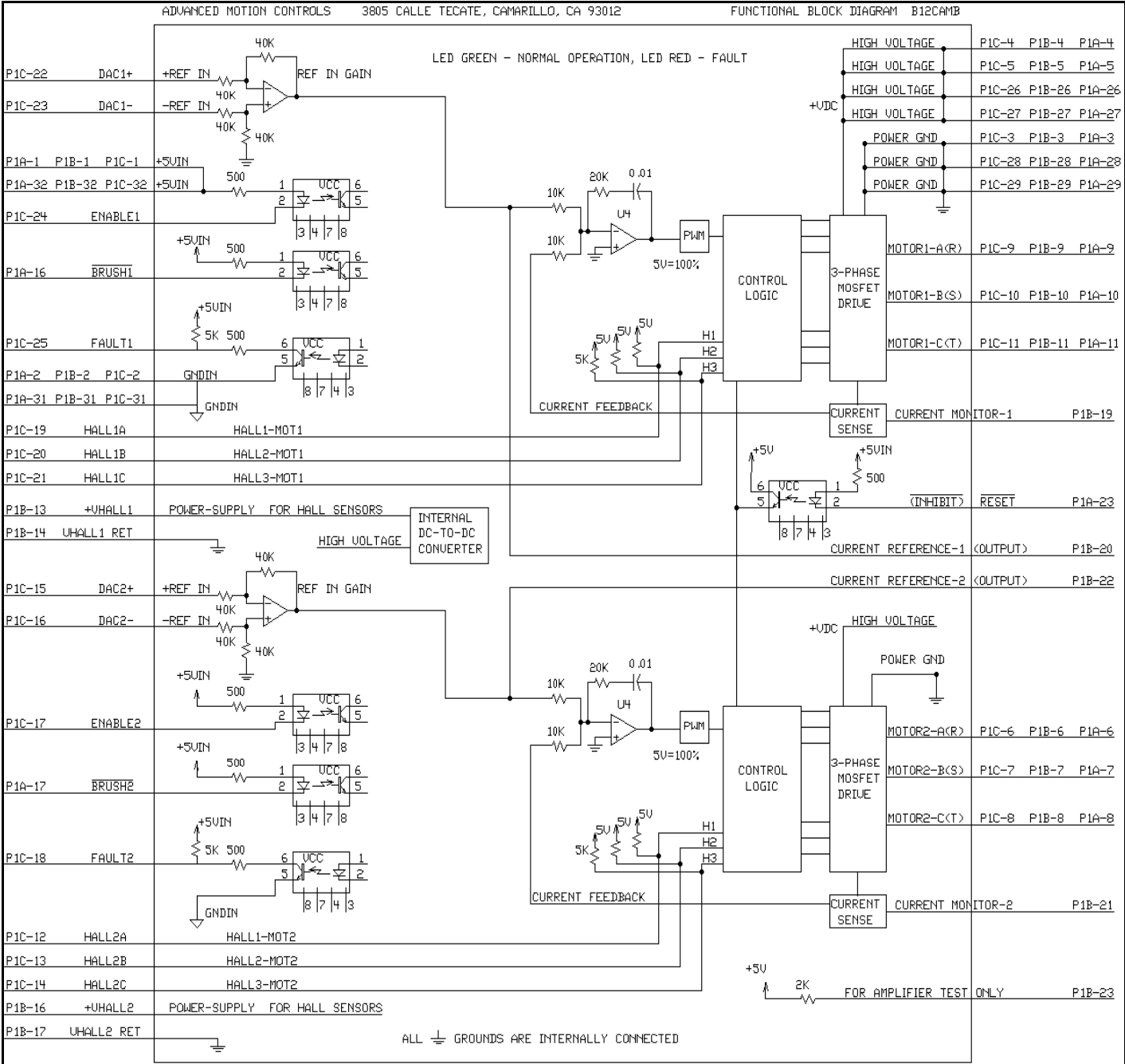
SPECIFICATIONS:

	MODEL
POWER STAGE SPECIFICATIONS	B12CAM
DC SUPPLY VOLTAGE	20 – 50 VDC
PEAK CURRENT (2 sec. max., internally limited)	± 8 A
MAX. CONT. CURRENT (internally limited)	± 6 A
MINIMUM LOAD INDUCTANCE*	200 µH
SWITCHING FREQUENCY	33 kHz ±15%
HEATSINK (BASE) TEMPERATURE RANGE	0° to +65°C, disables if > 65°C
POWER DISSIPATION AT CONTINUOUS CURRENT	30 W
OVER-VOLTAGE SHUT-DOWN (self reset)	55 VDC
BANDWIDTH (load dependent)	2.5 kHz

* Low inductance motors require external inductors.

DESCRIPTION: The dual axis B12CAM PWM servo amplifiers are designed to drive brushed and brushless DC motors at a high switching frequency. They are fully protected against over-voltage, over-current, over-heating and short-circuits. These amplifiers can either interface with digital motion controllers or be used as stand-alone drives. They require only a single unregulated DC power supply. A single red/green LED indicates operating status.

BLOCK DIAGRAM:



PIN FUNCTIONS:

PIN			NAME	DESCRIPTION / NOTES	I/O
A1	B1	C1	+5V IN	+5V @ 50mA input to drive opto coupler inputs	I
A2	B2	C2	ISO GROUND	Isolation Ground	ISO GND
A3	B3	C3	POWER GROUND	Power Ground	PWR GND
A4	B4	C4	HIGH VOLTAGE	DC voltage input	I
A5	B5	C5			
A6	B6	C6	MOTOR 2 - A	Axis 2: Motor phase A connection	O
A7	B7	C7	MOTOR 2 - B	Axis 2: Motor phase B connection	O
A8	B8	C8	MOTOR 2 – C	Axis 2: Motor phase C connection	O
A9	B9	C9	MOTOR 1 – A	Axis 1: Motor phase A connection	O
A10	B10	C10	MOTOR 1 – B	Axis 1: Motor phase B connection	O
A11	B11	C11	MOTOR 1 – C	Axis 1: Motor phase C connection	O
A12	B12		-	-	-
		C12	HALL 2A	Axis 2: Hall sensor input A	I
A13			-	-	-
	B13		+V HALL 1	Axis 1: Power supply for Hall sensors, +5V @ 30mA	O
		C13	HALL 2B	Axis 2: Hall sensor input B	I
A14			-	-	-
	B14		VHALL1 RET	Axis 1: Return ground for Hall power	PWR GND
		C14	HALL 2C	Axis 2: Hall sensor input C	I
A15	B15		-	-	-
		C15	+REF IN 2	Axis 2: Differential reference input, 0 to +/-10V	I
A16			BRUSH 1	Axis 1: Short to ISO GND for brushed motors	I
	B16		+V HALL 2	Axis 2: Power supply for Hall sensors, +5V @ 30mA	O
		C16	-REF IN 2	Axis 2: Differential reference input, 0 to +/-10V	I
A17			BRUSH 2	Axis 2: Short to ISO GND for brushed motors	I
	B17		VHALL2 RET	Axis 2: Return ground for Hall power	PWR GND
		C17	ENABLE 2	Axis 2: Short to ISO GND to enable this axis	I
A18	B18		-	-	-
		C18	FAULT 2	Axis 2: Output high when fault occurs	O
A19			-	-	-
	B19		CURRENT MONITOR 1	Axis 1: Current output monitor, 1V = 2A	O
		C19	HALL 1A	Axis 1: Hall sensor input A	I

PIN			NAME	DESCRIPTION / NOTES	I/O
A20			-	-	-
	B20		CURRENT REFERENCE 1	Axis 1: Commanded current output, 7.2V = 8A	O
		C20	HALL 1B	Axis 1: Hall sensor input B	I
A21			-	-	-
	B21		CURRENT MONITOR 2	Axis 2: Current output monitor, 1V = 2A	O
		C21	HALL 1C	Axis 1: Hall sensor input C	I
A22			-	-	-
	B22		CURRENT REFERENCE 2	Axis 2: Commanded current output, 7.2V = 8A	O
		C22	+REF IN 1	Axis 1: Differential reference input, 0 to +/-10V	I
A23			INHIBIT	Short to ISO GND to disable the drive	I
	B23		RESERVED	-	-
		C23	-REF IN 1	Axis 1: Differential reference input, 0 to +/-10V	I
A24	B24		-	-	-
		C24	ENABLE 1	Axis 1: Short to ISO GND to enable this axis	I
A25	B25		-	-	-
		C25	FAULT 1	Axis 2: Output high when fault occurs	O
A26	B26	C26	HIGH VOLTAGE	DC voltage input	I
A27	B27	C27			
A28	B28	C28	POWER GROUND	Power Ground	PWR GND
A29	B29	C29			
A30	B30	C30	-	-	-
A31	B31	C31	ISO GROUND	Isolation Ground	ISO GND
A32	B32	C32	+5V IN	+5V @ 50mA input to drive opto coupler inputs (same as pins A1, B1, C1)	I

ORDERING INFORMATION:

Model: B12CAMX

X indicates the current revision letter