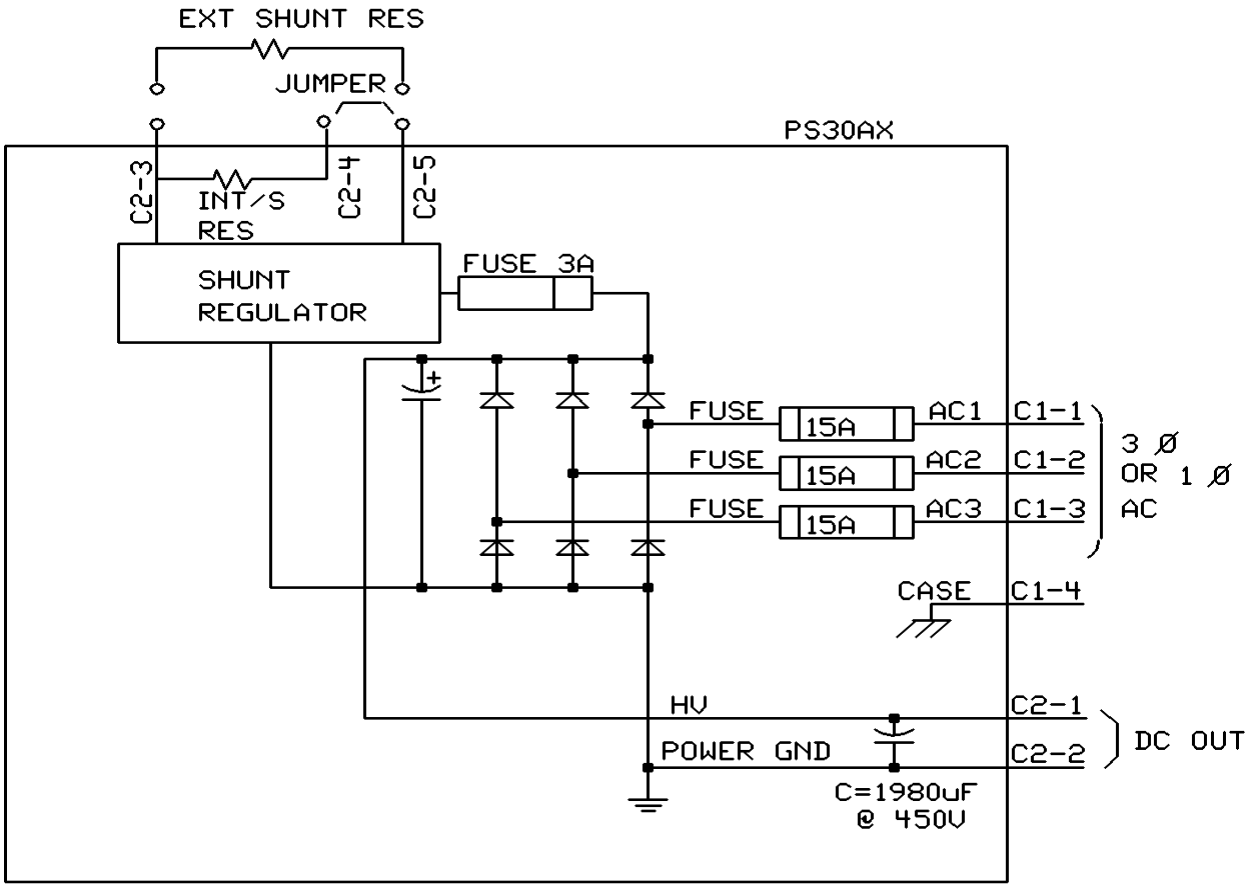
PS30A SERIES POWER SUPPLY
Model: PS30A, PS30A-LV

FEATURES:

- Surface-mount technology
- Accepts Three Phase or Single Phase AC Supply
- Built-In Shunt Regulator with Bicolor Led Indicator
- External Shunt Resistor Provisions
- Compact Design
- Agency Approvals:

BLOCK DIAGRAM:



ADVANCED **MOTION CONTROLS**
3805 Calle Tecate, Camarillo, CA 93012 Tel: (805) 389-1935, Fax: (805) 389-1165

DESCRIPTION: The PS30A unregulated power supplies are designed to complement *ADVANCED* MOTION CONTROLS' high voltage servo amplifiers. These unregulated DC power supplies are an acceptable solution for multi-axis applications since *ADVANCED* MOTION CONTROLS servo amplifiers compensate for power supply output variations and AC ripple components.

	MODELS	
POWER SPECIFICATIONS	**PS30A**	**PS30A-LV**
AC SUPPLY VOLTAGE	45-240 VAC, 1 or 3 phase, 50-60 Hz	30-125 VAC, 1 or 3 phase, 50-60 Hz
CONTINUOUS DC CURRENT AVAILABLE FROM INTERNAL SUPPLY	30 A for three phase AC input 15 A for single phase AC input	
PEAK DC CURRENT AVAILABLE FROM INTERNAL SUPPLY (MAXIMUM 2 SECONDS)	60 A for three phase AC input 30 A for single phase AC input	
INTERNAL SHUNT RESISTOR	90 Ω @ 150 W	
SHUNT CIRCUIT CURRENT RATING	3 A Continuous	
SHUNT SWITCH-ON VOLTAGE	390 V	190 V
BUS CAPACITANCE	1980 μF	4000 μF
SHUNT FUSE (d=.25 inches, L=1.25 inches)	3 A Motor Delay rated @ 250 VAC	
AC LINE FUSES (d=.25 inches, L=1.25 inches)	15 A slow blow rated @ 250 VAC	

MECHANICAL SPECIFICATIONS	
AC CONNECTOR: C1	Screw terminals
DC OUT AND EXTERNAL SHUNT CONNECTOR: C2	Screw terminals
SIZE	8.00 x 5.62 x 3.06 inches 203.2 x 142.9 x 77.7 mm
WEIGHT	4.14 lb. 1.88 kg.

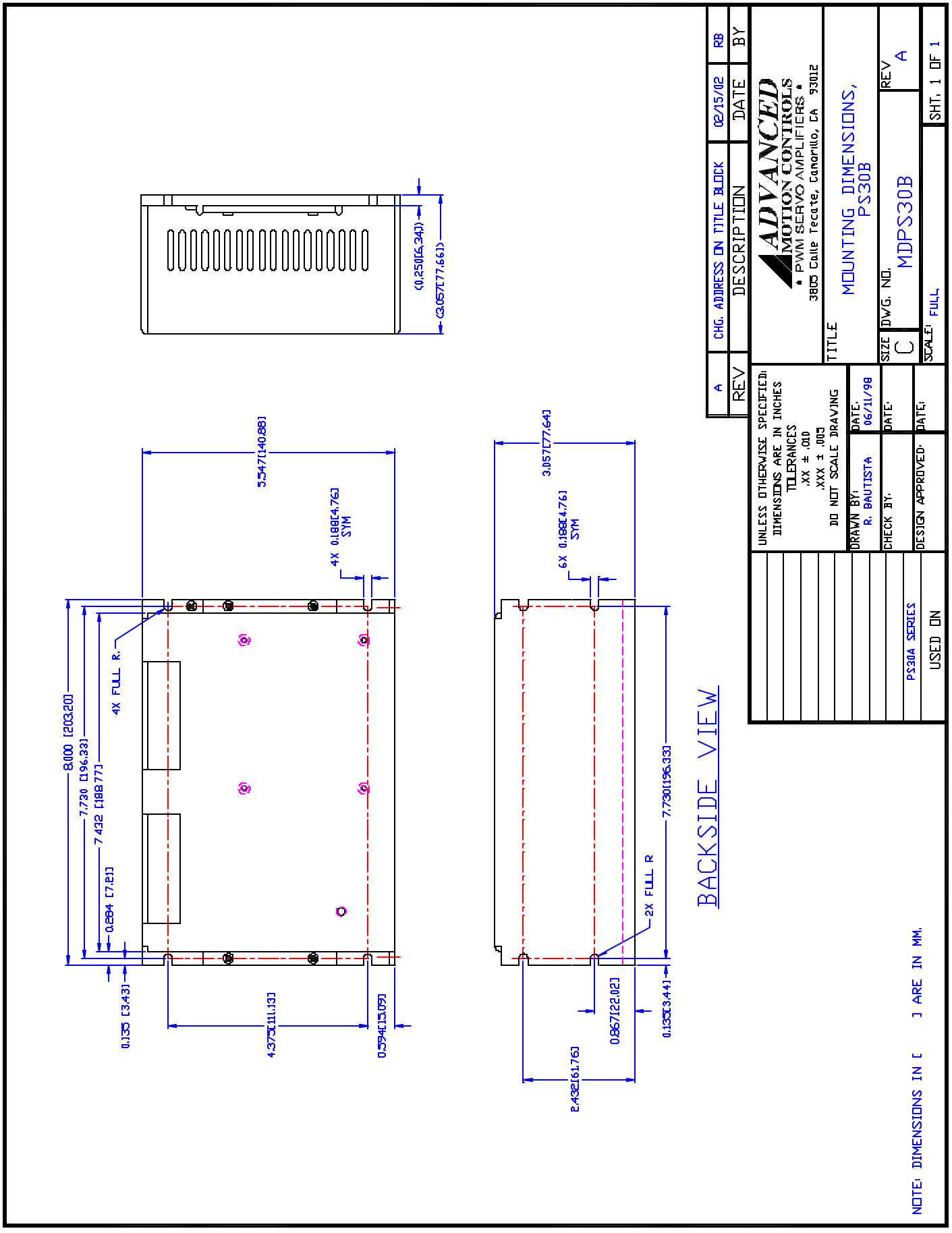
These power supplies contain a rectifier bridge and filter capacitors to generate the DC bus internally from the AC input power. The DC bus voltage is 1.4 times AC voltage (RMS), e.g. 310 VDC from 220 VAC for the PS30A and 183 VDC from 130 VAC for the PS30A-LV. During braking much of the stored mechanical energy is fed back into the power supply and charges the bus capacitor to a higher voltage. If this voltage reaches the amplifier's over-voltage shutdown point, output current and braking will cease. To ensure smooth braking of large inertial loads, a built-in "shunt regulator" is provided. The shunt regulator will switch on the internal power resistor when the bus voltage reaches shunt switch-on voltage. This allows the bus capacitor to discharge and thus lower the bus voltage. During regeneration, the regeneration led will blink (solid green is non-regeneration mode). An external shunt resistor can be added parallel to the internal resistor (between C2-3 and C2-4). Removing the jumper between C2-4 and C2-5 will disable the internal shunt resistor.

ORDERING INFORMATION:

Model: PS30AX, PS30AX-LV

X indicates current revision letter.

MOUNTING DIMENSIONS: See page F-27.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(0.250[6.34])
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4X 0.188[4.76] SYM
4X FULL R.
8.000 [203.20]
7.730 [196.33]
7.432 [188.77]
0.284 [7.21]
0.135 [3.43]
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0.594[15.09]
3.057[77.64]
6X 0.188[4.76] SYM
2X FULL R
7.730[196.33]
2.432[61.76]
0.867[22.02]
0.135[3.44]
BACKSIDE VIEW
A
REV
CHG. ADDRESS ON TITLE BLOCK
DESCRIPTION
02/15/02
DATE
RB
BY
ADVANCED MOTION CONTROLS
• PWM SERVO AMPLIFIERS •
3805 Calle Tecate, Camarillo, CA 93012
TITLE
MOUNTING DIMENSIONS, PS30B
SIZE C
DWG. NO. MDPS30B
REV A
SCALE: FULL
SHT. 1 OF 1
UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES
.XX ± .010
.XXX ± .005
DO NOT SCALE DRAWING
DRAWN BY: R. BAUTISTA
DATE: 06/11/98
CHECK BY:
DATE:
DESIGN APPROVED:
DATE:
PS30A SERIES
USED ON
NOTE: DIMENSIONS IN [ ] ARE IN MM.