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DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1190	A	RELEASED	JWM	6/17/02	HO	6/17/02	DJC	6/18/02
1589	B	Specs added	JWM	9/11/03	JC	9/11/03	JC	9/11/03



The heart of the 72-6850 power supply is an innovative regulator design which combines switch mode pre-regulation with linear post-regulation. The pre-regulator uses specially developed techniques to dramatically reduce the capacitance between input and output thus eliminating the high levels of common-mode noise normally associated with switch mode PSUs.

The linear post-regulator combines very low levels of output noise with excellent load regulation and transient response. The result is performance comparable with a pure linear design.

SPC-F004.DWG

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TENMA®

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

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DRAWING TITLE:
Laboratory Power Supply, Single Output, 35V @ 10A

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	72-6850	19C7696.dwg	B
SCALE: NTS	U.O.M.: Millimeters	SHEET: 1 OF 2	

Specifications

Output Specifications:

Operating modes:	Constant voltage or constant current with automatic crossover.
Voltage range:	0V to 35V
Current range:	0A to 10A
Overvoltage protection:	10% to 110% of max. output voltage.
Setting resolution:	10mV, 10mA.
Load regulation:	<0.01% of max. O/P for 90% change.
Line regulation:	<0.01% of max. O/P for 10% change.
Output impedance:	<1milliohm in constant voltage mode. >5k ohm in constant current mode.
Ripple & noise:	<1mV RMS typical in constant voltage. <3mA RMS typical in constant current.
HF common mode noise:	Typically <3mV RMS, <10mV pk.
Transient load response:	<20µs to within 50mV of set level for 90% load change.
Temperature coefficient:	Typically <100ppm/°C.
Overvoltage protection delay:	<200µs.
Protection functions:	Overvoltage trip, Regulator over temperature, Sense miswiring.
Status indication:	Output on/off lamp, Constant voltage mode lamp, Constant current mode lamp, Trip message.
Output switch:	Electronic.
Output terminals:	4mm output terminals at front, screw terminals for output and sense at rear.
Output protection:	Full forward and reverse protection via OVP and diode clamp.

Input Specifications:

Input voltage range:	180V to 270V RMS, 90V to 135V RMS, 47 to 63Hz.
Power requirement:	750VA max.
Voltage range selection:	Rear panel slide switch.

Meter Specifications

Meter types:	Separate 4 digit meters for voltage and current with 12.5mm (0.5") LED displays.
Meter resolutions:	10mV, 10mA.
Meter accuracies:	Voltage $\pm(0.2\% + 1 \text{ digit})$ Current $\pm(0.5\% + 1 \text{ digit})$.

Mechanical & Environmental

Electrical safety:	Complies with EN61010-1.
EMC:	Complies with EN50081-1 and EN50082-1.
Temperature:	+5°C to +40°C operating, 20% to 80% RH, -40°C to +70°C storage.
Size:	210 x 130 x 350mm (WxHxD) (half rack width x 3U height)
Weight:	5.0kg

Front Panel Controls

Voltage setting:	Via single rotary controls for coarse and fine control.
Current setting:	Via single turn semi-logarithmic rotary control.
Overvoltage setting:	Via screwdriver adjustable preset potentiometer.
Output On/Off:	Via large paddle lever switch.

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