



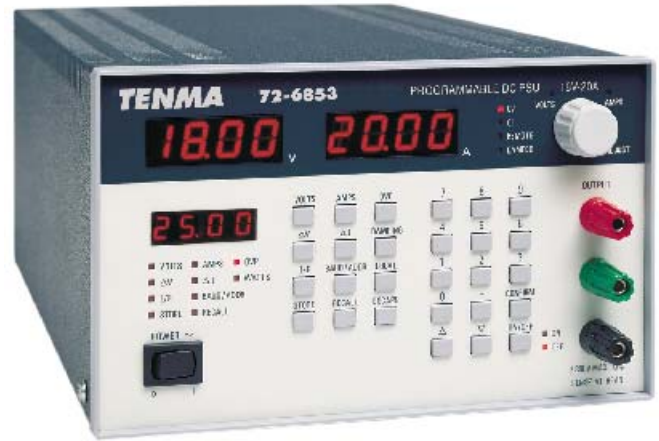
REVISIONS

DOC. NO. SPC-F004 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1494	A	RELEASED	JWM	2/18/03	HO	2/18/03	DJC	2/18/03

OUTPUT SPECIFICATIONS

Operating modes: Constant voltage or constant current with automatic crossover.
 Voltage range: 0V to 18V
 Current range: 0A to 20A
 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.
 >5kilo-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: <20us to within 50mV of set level for 90% load change.
 Temperature coefficient: typically <100ppm/°C.
 Overvoltage protection delay: <200us.
 Protection functions: Overvoltage trip, Regulator overtemperature 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 damp.



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: ±(0.2% + 1 digit)
 Current: ±(0.5% + 1 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)
 Weight: 5.5kg

FRONT PANEL CONTROLS

Voltage setting: Direct keyboard entry or quasi-analogue rotary control.
 Current setting: Direct keyboard entry or quasi-analogue rotary control.
 Overvoltage setting: Direct keyboard entry.
 Output On/Off: Push button with dual indicator lamps.

Note: all voltage and current levels set via the key board are displayed on a separate 0.3" 4 digit display. This entry preview system ensures that the user can observe the value entered before it is effected thus avoiding possible error. The display is also used for setting additional functions and for displaying watts.

Additional Keyboard Functions: Increase or decrease voltage or current in functions; user-selectable steps (delta mode). Store/recall voltage, current & OVP levels from non-volatile memory (25 memories). Set digital interface type (RS232 or GPIB), set baud rate, set address.

DIGITAL INTERFACES

RS232: Variable baud rate, 9600 baud maximum, 9 pin D connector (male). Fully compatible with standard RS232 or TTI addressable RS232 system (ARC).
 IEEE-488 (GPIB): Conforming with IEEE488.1 & IEEE488.2.
 Operational functions: Set voltage; set current; set OVP; set output On/Off; read output voltage/current.
 Setting resolution: Voltage: 10mV; Current: 10mA.
 Setting accuracy: Voltage: ±(0.1% + 10mV);
 Current: ±(0.2% + 20mA).
 Response times: Interface: <15ms (single command);
 PSU - Depends on Load conditions, typically 150ms to within 0.1% of final value (except for voltage reduction with low load current which will be longer).
 Readback resolution: Voltage: 10mV; Current: 10mA.
 Readback accuracy: Voltage: ±(0.1% + 1 digit);
 Current: ±(0.5% + 1 digit).
 Operating software: Software for operating the PSUs under GPIB or RS232 control is available including a Labwindows driver and ARC-TALK software for a PC.

SPC-F004.DWG

TOLERANCES: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.	DRAWN BY:	DATE:	DRAWING TITLE:			
	Jeff McVicker	2/18/03	Laboratory Power Supply with NIST Calibration Certificate			
	CHECKED BY:	DATE:	SIZE	DWG. NO.	ELECTRONIC FILE	REV
	Hisham Odish	2/18/03	A	72-6853C	36C3004.dwg	A
APPROVED BY:	DATE:	SCALE: NTS		U.O.M.: Millimeters	SHEET: 1 OF 1	
Daniel Carey	2/18/03					

ALL RIGHTS RESERVED. NO PORTION OF THIS PUBLICATION, WHETHER IN WHOLE OR IN PART CAN BE REPRODUCED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPC TECHNOLOGY. DISCLAIMER: ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.