



REVISIONS

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

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1589	A	RELEASED	JWM	8/8/03	HO	9/15/03	DJC	9/15/03



Tenma model 72-6910 provides 420 watts of power within a highly compact and lightweight unit. It can provide current of up to 10 amps at voltages up to 42V in both constant voltage and constant current models. The choice of 42 volts enables it to be used as a test source for the new generation of automotive electrical parts which will use 42V (18 cell batteries) instead of 14V (6 cell batteries), thus reducing currents and hence wiring losses. Switchable remote sense is provided to remove the effects of connection lead resistance at high current. The 72-6910 combines switch-mode pre-regulation with linear post-regulation to provide performance comparable with an all linear design. Excellent line and load regulation is matched by low noise and good transient response.

SPC-F004.DWG

TOLERANCES: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.	DRAWN BY:	DATE:	DRAWING TITLE:			
	Jeff McVicker	8/8/03	Power Supply, DC, Bench Type, with NIST Calibration			
	CHECKED BY:	DATE:	SIZE	DWG. NO.	ELECTRONIC FILE	REV
	Hisham Odish	9/15/03	A	72-6910C	25H6715.dwg	A
	APPROVED BY:	DATE:	SCALE:	U.O.M.:	SHEET:	
	Daniel Carey	9/15/03	NTS	Millimeters	1 OF 2	

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MAIN OUTPUTS

Voltage Range: 0V to 42V minimum

Current Range: 0A to 10A minimum

Operating Mode: Constant Voltage (CV) or Constant Current (CC) with automatic crossover and indication.

Voltage Setting: By coarse and fine controls.

Current Setting: By single logarithmic control.

Load regulation: <0.01% of max. O/P for a 90% load change.

Line regulation: <0.01% of max. O/P for a 10% line voltage change.

Output impedance: Typically <5milliohms in constant voltage mode. Typically >20kilo-ohms in constant current mode.

Ripple & Noise

(20MHz bandwidth): Typically <2mV rms, <10mV pk-pk, (CV mode).

Transient Response: <200µs to within 50mV of set level for 90% load change.

Temp. Coefficient: Typically <100ppm/°C

Output Protection: Outputs will withstand forward voltages up to 48V

Over-voltage trip operates above these levels.

Over-temperature trip

Reverse protection by diode clamp for currents up to 3A.

Status Indication: Output ON lamps. Constant current mode lamps.

Output Switch: Electronic. Preset voltage/current displayed with output off.

Output Terminals: 4mm terminals on 19mm (0.75") pitch.

METERS

Meter Types: Separate 4 digit meters for voltage and current with 14mm (0.56") LED displays. Reading rate 4/sec

Meter Resolutions: 10mV, 10mA.

Meter Accuracies: Voltage 0.3% ±2 digit. Current 0.6% ±2 digit.

REMOTE SENSE

Selection: Switch selectable as Local or Remote.

Connection: Remote sense connections via spring loaded connectors.

COOLING

Fan assisted using low-noise brushless dc fan.

OUTPUT TERMINALS

Standard Type: 4mm "binding post" terminals suitable for plugs or wires.

POWER

AC Input: 115V Installation Category II.

ENVIRONMENTAL

Operating Range: 5°C to 40°C, 20% to 80% RH

Storage Range: -40°C to 70°C

Environmental: Indoor use at altitudes to 2000m, Pollution Degree 2.

Safety: Complies with EN61010-1.

EMC: Complies with EN61326.

SIZE, WEIGHT, VA

Model Size (W X H X D) mm: 140 x 160 x 320

Weight (kg) : 3.6

Input VA max.: 800