

**Electrical
Specification for:**

DP175-113

Wide range DC/DC Single Output 108W Power Supply

Telkoor Part Number:

900-8113-0000

CUSTOMER	MOTOROLA	SIZE		CAGE CODE	S5417	DWG. NO.	8113-DOC-10	REV	C
		SCALE		RELEASE DATE	02/10/06	SHEET	1	OF	4

Input:

Input Voltage: 18-72 VDC
 Input current: 8A Max
 Inrush Current: 16A maximum,
 Efficiency: 80% typical at full load
 76% Minimum at full load
 Input Protection: Internal Line Fuse: Replaceable 10A 250Vac -normal Blow

Output Voltages & Currents:

Output	Output Voltage	Min. Load	Max. Load	Peak Load
V1	10.5-15.5V adjust	0	9.0A	11A

Output Power: Nominal power: 105W at all operation Temp. with base plate free convection cooling

Line Regulation: $\pm 0.2\%$ Maximum of the output voltage at nominal input for high line and low line.

Load Regulation: $\pm 0.5\%$ Maximum of the output voltage at half load for load changes from Minimum to Maximum rated current load

V1
 External Battery leakage current Leakage current from parallel power supply or Battery is 100uA Max

Ripple & Noise 120mV Max. Vp-p 20Mhz BW

Output voltage Adjust, external control linear, external control Dc voltage 0-5V, change the output voltage from 10.5V to 15.5V, when no voltage is applied power supply provides 13V output . Impedance is 5K ohm

Overshoot & Undershoot: Less than 1% of the nominal output voltage at turn ON and OFF

Transient Load Response: $\pm 5\%$ Max. Deviation for load change of 25% to 75%, at slew rate of 1A/ μ sec, recovery time less then 500usec

Turn On Time: 2 sec. Maximum (time from DC input turn ON, to output voltage presence)

Hold-up Time: N/A

Rise Time: 40mSec Max (time from output voltage 10% to 90% of nominal value)

Overload & Short circuit Protection: 110 to 130% of I Max, constant current limit, automatic recovery.

Over-voltage Protection: Outputs shut down when output voltage rise to 16.5V +/-0.5V (Latched Shut-Down) DC input must recycle to re-start.

Temperature Protection: Shutdown due to excessive internal temperature 115 +/-5°C automatic recovery.

Input Connector: Terminal Block 3 pin DINKEL P/N : DT-4C-B1N-03

Output Connector: Molex 10 Pin P/N : 26-48-1105

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Signals & Commands

Power supply type (AC or DC)	2 pins (logic TBD)
Output control	2 pins, external DC voltage 0-5V linear control
Power OK:	Open collector active HIGH when output drop below 9.5V value, LOW when output is O.K
Inhibit	Active low , output shut down

Environmental Specifications:

Temperature:	Operating: -40°C to +70°C (de-rating linearly to 70 °C with 50% de-rating). Storage: -50°C to +85°C.
Temperature Coefficient:	N.A
Cooling:	105W NOMINAL POWER free convection cooling (base plate cooling). 200W with 15 CFM forced air cooling.
Humidity:	5% to 95% RH non-condensing at 55 Deg C
Altitude:	Operating 10,000 ft. Non- operating 40,000 ft.
Vibration:	Three orthogonal axes at 1 octave/min, 5 min dwell at four major resonances at 0.75G peak, 5Hz to 500Hz.

Safety Regulatory & EMC Specifications:

Meets FCC PART 15 CLASS B, CISPR 22 CLASS B, EN55022 CLASS

EN6000-4-2	ESD +8KV AIR +4KV contact discharge, performance criteria B
EN61000-4-3	Radiated Immunity: 80-1000Mhz 3V/m, AM 80% (1KHz), criteria A
EN61000-4-4	Fast transient: 0.5KV on DC power port , performance criteria B
EN61000-4-5	Surge: 2KV line to Ground and 0.5KV line to line
EN61000-4-6	3VRMS, 80% A.M. BY 1kHz
EN61000-4-8	3A /m at 50Hz, performance criteria A.
EN61000-4-11	Voltage dips and interruption: 30% reduction for 10mSec –Criteria B, 60% For 100mSec. Criteria C, 95% reduction for 5000mSec Criteria C.

Dielectric Withstand:

Input to Case:	1500VDC
Input to Output:	3000VDC
Output to Case:	100 VDC.
Safety Agency Compliance:	IEC60950,UL 60950,CSA C22.2 -234, LEVEL 3.EN-60950, CLASS 1, SELV CE - MARK
Leakage Current:	N/A
MTBF:	300,000 hours minimum per BELCOR 332,issue 6 specification @30 degrees C.

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