

**Electrical
Specification for:**

DPO306-433

DC/DC Quad output open frame power supply

**Telkoor Part
Number:**

900-3406-000

CUSTOMER	SIZE	CAGE CODE	S5417	DWG. NO.	3406DOC10	REV	A
MRV	SCALE	RELEASE DATE	13/03/07	SHEET	1	OF	6

REVISION HISTORY				
Rev Level	Rev Date	Change Made	Reason for Change	Effective
A	13/03/2007	Initial release		13/03/2007

Approvals		
	Name	Date
Written by:	S. Sadot	13/3/2007
Engineering:	M.Heller	13/3/2007
Sales & Marketing:	Y. Ben Ami	13/3/2007
Management:	Y. Ben Ami	13/3/2007

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Input:

Input Voltage: 36-72 Vdc
 Inrush Current: 20A maximum @ 48Vdc
 Efficiency: 85% typical at 48VDC, full load
 Input Protection: Internal line fuse IEC type 12.5A 250VAC

Output Voltages & Currents:

Output	Output Voltage	Min. Load	Max. Load	Peak Load
V1	+5.0V	1A	40A	42A
V2	+3.3V	1A	40A	42A
V3	+12V	0	4A	5A
V4	-12V	0	1.5A	2A

Note: Maximum output power at any combination within this table is 300 Watts

Total Output Power: 300 Watts
 Line Regulation: $\pm 0.5\%$ for V_{in} (Min.) to V_{in} (Max.)
 Load Regulation:
 V1 & V2 $\pm 0.5\%$ for load change from Min Load to full load
 V3, V4 $\pm 2\%$ for 10% to 100% of I_{min} on V1
 $\pm 5\%$ for 0% to 10% of I_{min} on V1
 Ripple & Noise
 V1 75mV p-p Maximum
 V2 50mV p-p Maximum
 V3, V4 120mV p-p Maximum
 Initial Set Point Tolerance:
 V1 5.0V \pm 20mV
 V2 3.3V \pm 50mV
 V3, V4 12V \pm 0.2V

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Overshoot & Undershoot: Less than 1% at turn ON-OFF
 Transient Load Response: $\pm 5\%$ Maximum deviation for load change of 25% to 75%, at slew rate of 1A/ μ Sec, recovery time less than 2mSec
 Turn On Delay: 1 Second maximum
 Hold-up Time: N/A
 Turn-On Rise Time: 30mSec maximum
 Over-current Protection: V1& V2 110% to 130% of I_{max}. constant current limit, automatic recovery
 V3, V4 110% to 200% of I_{max}. constant current limit, automatic recovery
 Over-voltage Protection: Outputs shut down at 125% of nominal, DC input must recycle to restart.
 Temperature Protection: Shutdown due to excessive internal temperature 90°C to 97°C case, auto recovery
 Current Share: Accuracy of current share $\pm 10\%$ between units with up to 6 parallel units. Single wire current share on V1 & V2 for 50% to 100% load.
 Hot Swap: Internal O-ring Diode
 Remote Sense V1 & V2 only. Compensates for voltage drop of up to 0.2V to the load. Outputs are internally sensed if loads are opened.

Signals & Commands

Inhibit: Active low, all outputs shut down
 Power Good: Open collector active low when any of the outputs drop below 10%

Environmental Specifications:

Temperature: Operating: -5°C to +50°C (50% Linear de-rating up to 70°C)
 Storage: -25°C to +85°C
 Temperature Coefficient: 0 - 70°C $\pm 0.02\%/^{\circ}\text{C}$
 Cooling: 150W with free air convection (base plate cooling). 300W with 250 LFM air flow
 Humidity: Maximum 5% to 95% RH non-condensing
 Altitude: Operation 10,000ft. Non-operation 40,000ft.
 Vibration: Three orthogonal axes at 1 octave/min, 5 min. dwell at four major resonances at 0.75G peak, 5Hz to 500Hz.

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Safety Regulatory & EMC Specifications:

Meets FCC CLASS B, CISPR 22 CLASS B, EN55022 CLASS B with external line filter

- 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:1KV for AC power port,0.5KV for DC power I/O and signals Port ,performance criteria B
- EN61000-4-5 Surge: 2KV common mode and 1KV differential mode
- 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:

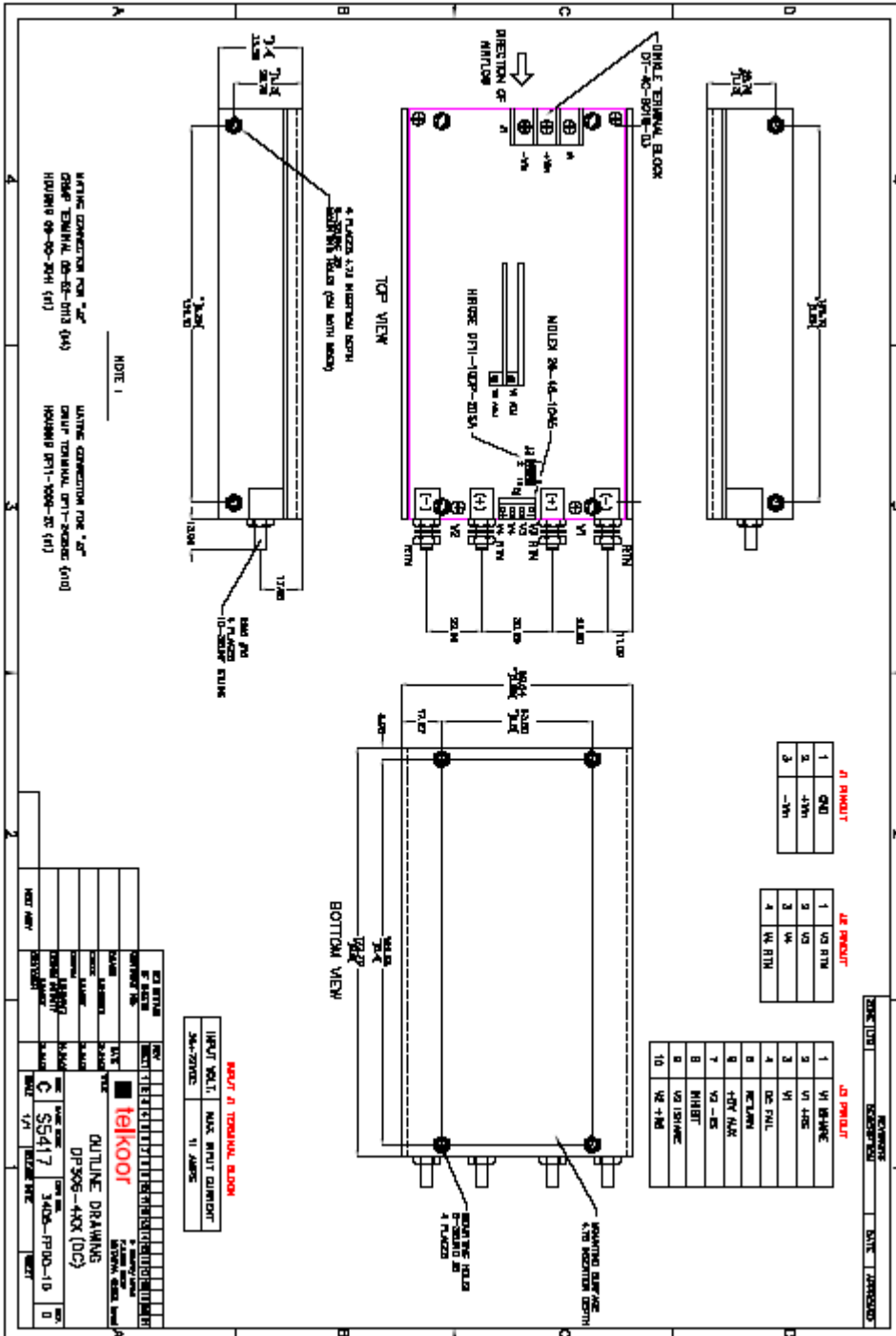
- Input to Case: 1500VAC
- Input to Output: 1500VAC
- Output to Case: 100VDC
- Safety Agency Compliance: UL1950 (Design to meet – pre-approved)
CSA C22.2-234, LEVEL 3
EN60950, CLASS 1, SELV
CE Mark
- Leakage Current: N/A
- MTBF: 300,000 hours minimum per BELCORE 332 issue 6 specification @ 30°C (Max. junction temperature 110°C, capacitors 105°C)

Mechanical Dimensions:

- Size: (6.8" x 3.6" x 1.5")
- Weight: 850gr. Max (32 Oz)

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OUTLINE DRAWING



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