



Step Up Power Supply DC-DC 12 VDC to 24 VDC @ 30W

PS-SU24 by Dotworkz, Inc.

Applications:

- Allows Powering 24 VDC Cameras or Accessories from 12 VDC Source
- COOLDOME™ 12V step-up to 24V camera power
- Providing regulated power to 24 VDC devices
- Step-up from 12 V Battery power
- Step-up from 12 V Solar application
- Negative 12 VDC & Positive 12 VDC Power Supply

Features :

- 2:1 wide input range
- 4:1 wide input range(option)
- 1000VDC I/O isolation
- Built-in EMI filter
- Trimming output(±10%)
- Remote ON-OFF control
- Protections: Short circuit / Overload
- Cooling by free air convection
- Six-sided shield metal case
- Epoxy encapsulated
- 100% burn-in test
- Approvals: FCC / CE

Quick Sheet Specifications

Input Range: 9 – 18 VDC

Max. Output Current: 1.25 Amps @ 24 VDC

Dimensions: 3.1" x 2.5" x 1.0" (L x W x H)

PCB Mounting: 2.8"l x 2.2"w O.C., Hole dia. 0.170"

Weight: 0.27 lbs

OUTPUT	CURRENT RANGE	±250 ~ ±2500mA		±125 ~ ±1250mA		±100 ~ ±1000mA		
	RATED POWER	25W		30W		30W		
	RIPPLE & NOISE (max.) Note.2	100mVp-p						
	LINE REGULATION Note.3	±0.5%						
	LOAD REGULATION Note.4	±0.5%						
	VOLTAGE ACCURACY	±2.0%						
	SWITCHING FREQUENCY	100KHz min.						
	EXTERNAL TRIM Adj. RANGE	±10%						
INPUT	VOLTAGE RANGE	A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC						
	EFFICIENCY (Typ.)	80%	80%	80%	80%	83%	81%	
	DC CURRENT	Full load	A: 3.2A	B: 1.5A	C: 0.77A			
		No load	A: 40mA	B: 20mA	C: 10mA			
	FILTER	Pi network						
PROTECTION (Note. 5)	PROTECTION	Fuse recommended						
	OVERLOAD	110 ~ 250% rated output power Protection type: Hiccup mode, recovers automatically after fault condition is removed						
	SHORT CIRCUIT	All output equipped with short circuit Protection type: Hiccup mode, recovers automatically after fault condition is removed						
ENVIRONMENT	WORKING TEMP.	-40 ~ +85°C (Refer to output load derating curve)						
	WORKING HUMIDITY	20% ~ 90% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +105°C, 10 ~ 95% RH						
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50°C)						
	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes						
SAFETY & EMC	WITHSTAND VOLTAGE	I/P-O/P: 1KVDC						
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH						
	EMI CONDUCTION & RADIATION	Compliance to EN55022 Class B, FCC part 15 Class B						
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A						
OTHERS	REMOTE CONTROL	Power on: R.C ~Vin > 4.5~5.5VDC or open, Power off: R.C~ -Vin <0.8VDC or short						
	MTBF	100Khrs min. MIL-HDBK-217F (25°C)						
	DIMENSION	50.8*50.8*21.0mm or 2"2"0.82" inch (L*W*H)						
	WEIGHT	110g						

Mechanical Specification

Pin Configuration

Pin No.	Output	Pin No.	Output
1	R.C	5	+Vout
2	No Pin	6	COM
3	-Vin	7	-Vout
4	+Vin	8	TRIM

External Output Trimming

Derating Curve

Tested Consumption:

Input: 2.5 Amps @ 12.5 VDC

Output @ Load 25.5 Watts resistive @ 24.06 VDC @ 1.06 Amps @ 77°F / 25°C