# OPS2x4-150 OPEN FRAME POWER SUPPLIES \_\_\_\_ SELEC





### Features:

- 4 x 2 x 1.16 Inches Form factor
- 150 Watts with Forced Air Cooling & 100 Watts Convection Cooling
- No Load Power < 0.5W
- -40°C to +70°C Operating Temperature
- 12V/0.5A Fan Output, Thermal Shut-Down feature
- Efficiencies up to 89 %
- Designed to meet IEC/ UL 62368-1 and IEC/ EN 60601-1

#### **SPECIFICATIONS:**

MODEL		OPS2x4-150-12	OPS2x4-150-15	OPS2x4-150-24	OPS2x4-150-48
	NOMINAL DC VOLTAGE	12V	15V	24V	48V
	RATED CURRENT (CONVECTION)	8.33A	6.67A	4.17A	2.1A
	RATED CURRENT (FORCED AIR)	12.5A	10A	6.25A	3.13A
	RATED POWER (CONVECTION)	100W	100W	100W	100W
	RATED POWER (FORCED AIR)	150W	150W	150W	150W
	RIPPLE & NOISE (max)	<1% of Vout	<1% of Vout	<1% of Vout	<1% of Vout
OUTDUT	VOLTAGE ADJ. RANGE	12 to 14 V	15 to 17.5 V	24 to 28 V	48 to 56 V
OUTPUT	VOLTAGE TOLERANCE	±1%			
	LINE REGULATION	<1% of Vout			
	LOAD REGULATION	±1%			
	TURN ON TIME	<2 sec; at full load			
	HOLD UP TIME	≥60ms at 230V AC & ≥15ms at 115V AC, Full load			
	RISE TIME	<100 ms			
	FAN OUTPUT	A 12V, 0.5A output is available on a 2 pin connector header			
	VOLTAGE RANGE	90 - 264V AC (127 - 370V DC)			
	FREQUENCY RANGE	50/60 Hz			
	EFFICIENCY @ 230V AC	Up to 87 %	Up to 87 %	Up to 89 %	Up to 89 %
	AC CURRENT	1.5A @ 115V AC; 0.74A @ 230V AC			
INPUT	POWER FACTOR	> 0.95 at Full Load over entire input AC voltage range			
	INRUSH CURRENT	<60 Amps; Measured at 264V AC, 25°C Ambient, Cold start			
	LEAKAGE CURRENT	< 300 uA; 264Vac input			
	TOUCH CURRENT	< 100 uA; 264Vac input			
	NO LOAD POWER CONSUMPTION	< 0.5W			
	OVERLOAD	110% to 140% of rated output current; Hiccup type; Autorecovery			
	OVERVOLTAGE	17V DC ±1V DC	20V DC ±1V DC	31.5V DC ±1V DC	61V DC ±2V DC
PROTECTION	OVERVOLIAGE	Latched type; Input AC power to be recycled to recover the power supply			oply
	OUTPUT SHORT CIRCUIT	Hiccup mode when output is shorted; Autorecovery type.			
	OVER TEMPERATURE	Power supply shuts down when the temperature of PCB below main transformer reaches typically 120°C; Turns on only after the temperature falls below 90°C typically and AC power is recycled thereafter.			
SIGNALS	REMOTE INHIBIT	Not Available			
ENVIRONMENT	OPERATING TEMP	-40°C to +70°C; De-rate linearly above 50°C from 100% load at 50°C to 50% load at 70°C.  Note: Only start up guaranteed at -40°C with spec deterioration.			
	STORAGE TEMP	-40°C to +85°C			
	COOLING	Natural convection cooled or Forced Air cooled as per power requirements.			
	HUMIDITY	5 to 95% RH, Non condensing			
	ALTITUDE	2000m			
	VIBRATION	Component : 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			

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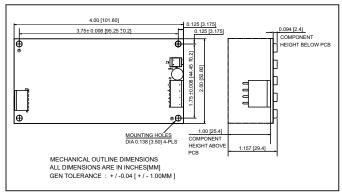


MODEL		OPS2x4-150-12	OPS2x4-150-15	OPS2x4-150-24	OPS2x4-150-48
SAFETY & EMC	SAFETY STANDARDS	Designed to meet IEC/ UL 62368-1 and IEC/ EN 60601-1.			
	CLASS II OPTION (NO EARTH)	Available			
	DIELECTRIC WITHSTAND VOLTAGE	I/P to Earth : 1500V AC, I/P to O/P : 4000V AC, O/P to Earth : 1500V AC			
	CONDUCTED EMISSION	CISPR22; Class B			
	RADIATED EMISSION	CISPR22; Class A			
	DIMENSION	Overall : 4" x 2" x 1.16" (LxWxH) ; Height above PCB : 1"			
MECHANICAL	WEIGHT	<200 gms			
	MOUNTING	Open Frame			

#### **Connectors details**

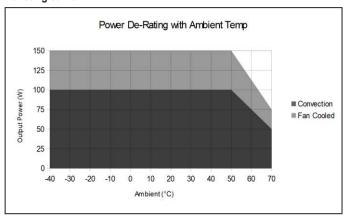
Ref Des	Description	Туре	Pin number	Function
J1	Input AC connector	Tyco: 640445-3;	1	AC Neutral
		Mates with 647402-3;	2	Not connected
		Pin : 3-647409-1	3	AC Live
J2	Output DC connector	Tyco: 640445-4;	1,2	V1 negative
		Mates with 647402-4;	1,2	
		Pin : 3-647409-1	3,4	V1 positive
J3	Fan connector	AMP : 640456-2	1	V2 positive
		Mates with 640440-2	2	V2 negative
-	Earth	Mounting holes marked with Earth Symbol	-	Earth

#### **Mechanical dimensions**



Note: This open frame power supply should preferably be mounted horizontally on 4 metal stand-offs having diameter not more than 6mm and height not less than 5mm

#### De-rating curve



## **Ordering information**

Product Code	Description	Certification
OPS2x4-150-12-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 12V, 12.5A, 150 Watts with Forced Air Cooling & 12V, 8.33A, 100 Watts Convection Cooling	CUL US In Process
OPS2x4-150-15-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 15V, 10A, 150 Watts with Forced Air Cooling & 15V, 6.67A, 100 Watts Convection Cooling	CUL US In Process
OPS2x4-150-24-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 24V, 6.25A, 150 Watts with Forced Air Cooling & 24V, 4.16A, 100 Watts Convection Cooling	CUL US In Process
OPS2x4-150-48-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 48V, 3.125A, 150 Watts with Forced Air Cooling & 48V, 2.08A, 100 Watts Convection Cooling	c UL us In Process

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