



Features :

- 4 x 2 x 1.16 Inches Form factor
- 60 Watts Convection
- No Load Power <0.5W
- -40°C to +70°C Operating Temperature
- Efficiencies up to 87%
- Designed to meet IEC/ UL 62368-1 and IEC/ EN 60601-1

SPECIFICATIONS:

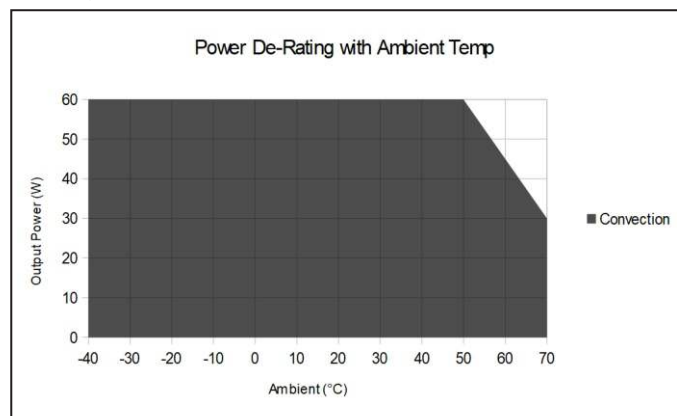
MODEL		OPS2x4-60-05	OPS2x4-60-12	OPS2x4-60-15	OPS2x4-60-24	OPS2x4-60-48
OUTPUT	NOMINAL DC VOLTAGE	5V	12V	15V	24V	48V
	RATED CURRENT (CONVECTION)	10A	5A	4A	2.5A	1.25A
	RATED CURRENT (FORCED AIR)	NA	NA	NA	NA	NA
	RATED POWER (CONVECTION)	50W	60W	60W	60W	60W
	RATED POWER (FORCED AIR)	NA	NA	NA	NA	NA
	RIPPLE & NOISE (max)	<1.5% of Vout	<1% of Vout	<1% of Vout	<1% of Vout	<1% of Vout
	VOLTAGE ADJ. RANGE	5.0 to 6.0 V	12 to 14 V	15 to 17.5 V	24 to 28 V	48 to 56 V
	VOLTAGE TOLERANCE	± 1 %				
	LINE REGULATION	<1% of Vout				
	LOAD REGULATION	± 1 %				
	TURN ON TIME	<3 sec; at full load				
	HOLD UP TIME	≥60ms at 230V AC & ≥15ms at 115V AC, Full load				
	RISE TIME	<100 ms				
	FAN OUTPUT	Not Available				
INPUT	VOLTAGE RANGE	90 - 264V AC (127 - 370V DC)				
	FREQUENCY RANGE	50/60 Hz				
	EFFICIENCY @ 230V AC	Up to 78 %	Up to 85 %	Up to 85 %	Up to 87 %	Up to 87 %
	AC CURRENT	1.2A @ 115V AC; 0.8A @ 230V AC				
	POWER FACTOR	No active PFC is available				
	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				
PROTECTION	OVERLOAD	> 110% of rated output current; Hiccup type; Autorecovery				
	OVERVOLTAGE	6.8V DC ±0.5V DC	17V DC ±1V DC	20V DC ±1V DC	31.5V DC ±1V DC	61V DC ±2V DC
	OUTPUT SHORT CIRCUIT	Latched type; Input AC power to be recycled to recover the power supply				
	OVER TEMPERATURE	Hiccup mode when output is shorted; Autorecovery type.				
ENVIRONMENT	OPERATING TEMP	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.				
	STORAGE 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.				
	COOLING	-40°C to +85°C				
	HUMIDITY	Natural convection cooled				
	ALTITUDE	5 to 95% RH, Non condensing				
	VIBRATION	2000m				
		Component : 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				

MODEL		OPS2x4-60-05	OPS2x4-60-12	OPS2x4-60-15	OPS2x4-60-24	OPS2x4-60-48
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				
MECHANICAL	DIMENSION	Overall : 4" x 2" x 1.16" (LxWxH) ; Height above PCB : 1"				
	WEIGHT	<150 gms				
	MOUNTING	Open Frame				

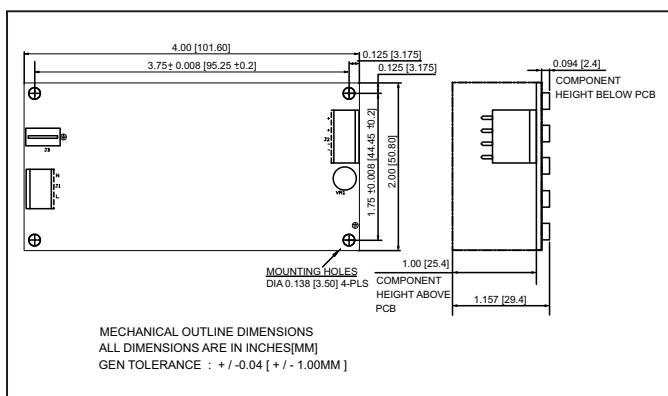
Connectors details

Ref Des	Description	Type	Pin number	Function
J1	Input AC connector	Molex: 26-60-4030;	1	AC Neutral
		Mates with 09-50-3031;	2	Not connected
		Pin : 08-50-0106	3	AC Live
J2	Output DC connector	Molex: 26-60-4040;	1,2	V1 negative
		Mates with 09-50-3041;		3,4
		Pin : 08-50-0106		
J3	Earth	Molex : 19705-4301	-	Earth
		Mates with 19003-0001		

De-rating curve



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

Ordering information

Product Code	Description	Certification
OPS2x4-60-05-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 5V, 10A, 50 Watts with Convection Cooling	cUL US In Process
OPS2x4-60-12-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 12V, 5A, 60 Watts with Convection Cooling	cUL US In Process
OPS2x4-60-15-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 15V, 4A, 60 Watts with Convection Cooling	cUL US In Process
OPS2x4-60-24-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 24V, 2.5A, 60 Watts with Convection Cooling	cUL US In Process
OPS2x4-60-48-A-1-CU	Open Frame Power Supply with 4 x 2 x 1.16" Form factor, 48V, 1.25A, 60 Watts with Convection Cooling	cUL US In Process