

480W Single Phase POWER SUPPLIES



220V ONLY

480W 220V AC Single Output DIN Rail Power Supply with PFC Function

Cat. No.	Output		Tol. %	Ripple & Noise	Efficiency	NOTES
	V DC	A				
PSP-48024	24V DC	20A	±1%	120 mVp-p	89%	
PSP-48048	48V DC	10A	±1%	120 mVp-p	89%	



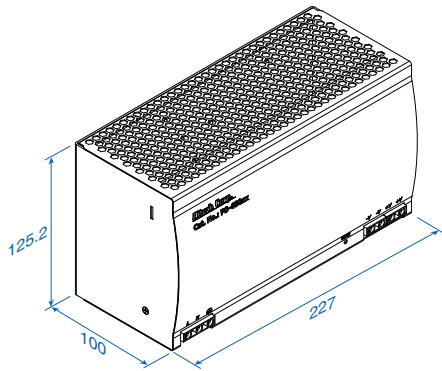
**110/220V
SWITCH SELECT**

480W Switch Select 110/220V AC Single Output DIN Rail Power Supply with PFC Function

Cat. No.	Output		Tol. %	Ripple & Noise	Efficiency	NOTES
	V DC	A				
PSP-480S24	24V DC	20A	±1%	120 mVp-p	89%	
PSP-480S48	48V DC	10A	±1%	120 mVp-p	89%	

SPECIFICATIONS

PSP-480 Series (220V AC input only)



TB1 Terminal Pin. No Assignment

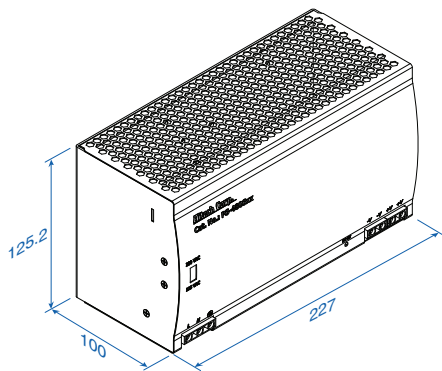
Pin No.	Assignment
1	AC/L
2	AC/N
3	FG ⊕

TB2 Terminal Pin. No Assignment

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

Wide range Input: 180-264V AC only, 250-370V DC, 4A @ 230V AC
 Built in passive Power Factor Correction function compliance to EN61000-3-2, PF>0.7
 Connection: Input - 3 poles, Output - 4 poles screw terminal
 Size (WxHxD): 227x125x100mm (8.95x4.95x3.95 inches)
 Packaging: 1/box; 5.3lbs / 2.4Kg

PSP-480 with Switch Series (110V AC and 220V input AC)



TB1 Terminal Pin. No Assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG ⊕

TB2 Terminal Pin. No Assignment

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

Switch select Input: 90-132V AC / 180-264 V AC, 254-370V DC range
 8A @ 115V AC, 3.2A @ 230V AC
 Built in passive Power Factor Correction function compliance to EN61000-3-2, PF>0.7/230V AC only
 Connection: Input - 3 poles, Output - 4 poles screw terminal
 Size (WxHxD): 227x125x100mm (8.95x4.95x3.95 inches)
 Packaging: 1/box; 5.8lbs / 2.6Kg



220V ONLY

PSP-480 Series Specifications



Features:

- Built-in passive PFC function compliance to EN61000-3-2
- High efficiency 89% and low dissipation
- Protections: Short Circuit / Overload / Overvoltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- DIN rail mountable
- UL 508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- 100% full load burn-in test
- 3 year warranty

OUTPUT

Cat. No.	PSP-48024	PSP-48048
DC VOLTAGE	24V	48V
RATED CURRENT	20A	10A
CURRENT RANGE	0 ~ 20A	0 ~ 10A
RATED POWER	480W	480W
RIPPLE & NOISE (max)	120mVp-p	120mVp-p
VOLTAGE ADJ. RANGE	24 ~ 28V	48 ~ 53V
VOLTAGE TOLERANCE	±1.0%	±1.0%
LINE REGULATION	±0.5%	±0.5%
LOAD REGULATION	±1.0%	±1.0%
SETUP, RISE TIME	1200ms, 40ms / 230VAC at full load	
HOLD UP TIME (Typ.)	16ms / 230VAC	

Ripple & noise are measured at 20MHz of bandwidth by using a 12 twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.

Tolerance: includes set up tolerance, line regulation and load regulation.

INPUT

VOLTAGE RANGE	180 ~ 264 VAC by switch	250 ~ 370VDC
FREQUENCY RANGE	47 ~ 63Hz	
POWER FACTOR (Typ.)	≥0.7	
EFFICIENCY (Typ.)	89%	
AC CURRENT (Typ.)	4A / 230VAC	
INRUSH CURRENT (Typ.)	COLD START 27A / 115VAC	45A / 230VAC
LEAKAGE CURRENT	≤ 3.5mA / 240VAC	

PROTECTION

OVERLOAD	105 ~ 150% rated output power	
OVERVOLTAGE	30 ~ 36V	54 ~ 60V
OVERTEMPERATURE	100°C ± 5°C (TSW: detect on heat sink of power switch)	

Protection type: Shut down overvoltage, re-power on to recover

Protection type: Shut down overvoltage, recovers automatically after temperature goes down

ENVIRONMENT

WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)
WORKING HUMIDITY	20 ~ 95% RH non-condensing
STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH
TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50°C)
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60 min. each long X,Y, Z axes
MOUNTING	Compliance to IEC60068-2-6

SAFETY & EMC

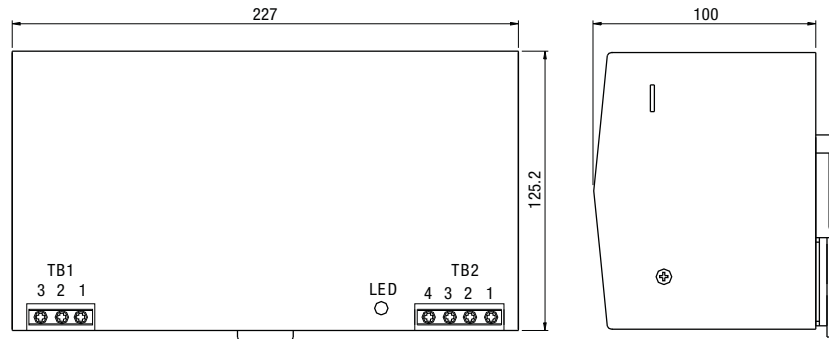
SAFETY STANDARDS	UL508 UL60950-1 EN60950-1 compliant
WITHSTAND VOLTAGE	I/P-O/P: 3KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: ≥100M Ohms / 500VDC (25°C; 70% RH)
EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22); Class B
HARMONIC CURRENT	Compliance to EN61000-3-2,-3
EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204; EN61000-6-2 (EN50082-2); heavy industry level; criteria A
	The power supply is considered a component which will installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

OTHERS

MTBF	180.9K hrs min. MIL-HDBK-217K (25°C)
DIMENSION	227x125.2x100mm (WxHxD)
PACKING	2.4Kg; 6pcs / 15Kg / 1.75CUFT

All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.

Mechanical Specification



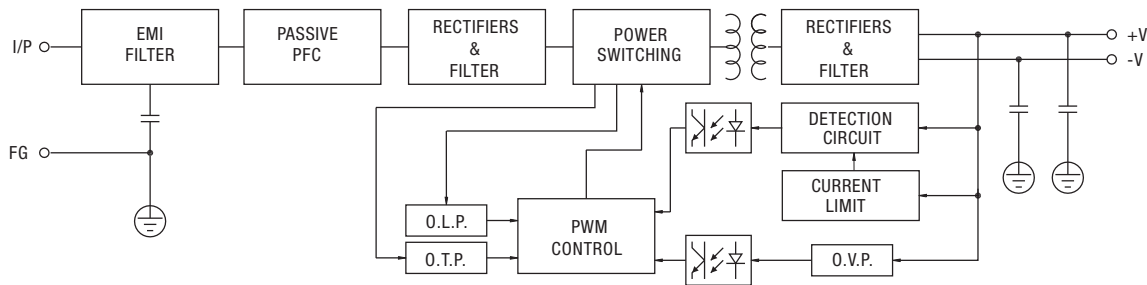
TB1 Terminal Pin. No Assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG \oplus

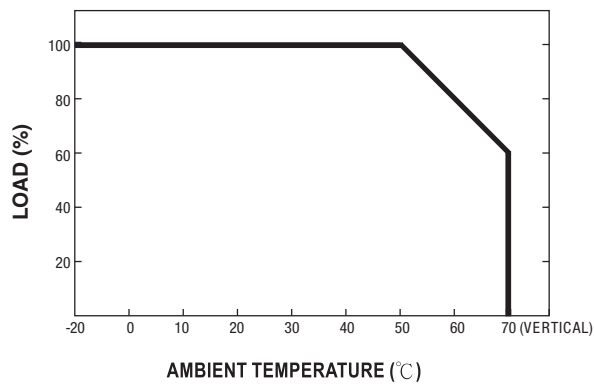
TB2 Terminal Pin. No Assignment

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

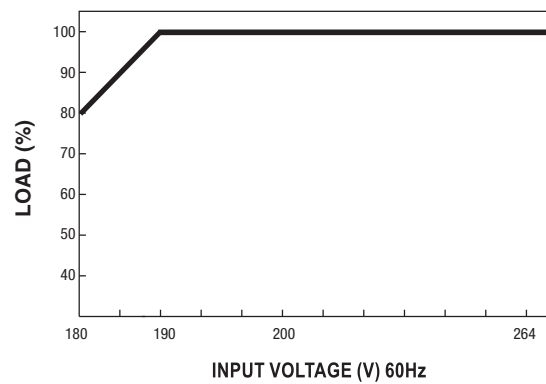
Block Diagram



Derating Curve



Output Derating VS Input Voltage





PSP-480S Series Specifications



110/220V SWITCH SELECT

Features:

- AC input range selectable by switch
- Built-in passive PFC function compliance to EN61000-3-2
- High efficiency 89% and low dissipation
- Protections: Short Circuit / Overload / Overvoltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- DIN rail mountable
- UL 508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- 100% full load burn-in test
- 3 year warranty

OUTPUT

Cat. No.	PSP-480S24	PSP-480S48
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DC VOLTAGE	24V	48V
RATED CURRENT	20A	10A
CURRENT RANGE	0 ~ 20A	0 ~ 10A
RATED POWER	480W	480W
RIPPLE & NOISE (max)	120mVp-p	120mVp-p
VOLTAGE ADJ. RANGE	24 ~ 28V	48 ~ 55V
VOLTAGE TOLERANCE	±1.0%	±1.0%
LINE REGULATION	±0.5%	±0.5%
LOAD REGULATION	±1.0%	±1.0%
SETUP, RISE TIME	1200ms, 40ms / 230VAC	1200ms, 40ms / 115VAC at full load
HOLD UP TIME (Typ.)	23ms / 230VAC	23ms / 115VAC at full load

Ripple & noise are measured at 20MHz of bandwidth by using a 12 twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.
Tolerance: includes set up tolerance, line regulation and load regulation.

INPUT

VOLTAGE RANGE	90 ~ 132VAC / 180 ~ 264 VAC by switch	254 ~ 370VDC
FREQUENCY RANGE	47 ~ 63Hz	
POWER FACTOR (Typ.)	≥0.7 / 230VAC only	
EFFICIENCY (Typ.)	89%	
AC CURRENT (Typ.)	8A / 115VAC 3.2A / 230VAC	
INRUSH CURRENT (Typ.)	COLD START 27A / 115VAC 45A / 230VAC	
LEAKAGE CURRENT	≤ 3.5mA / 240VAC	

PROTECTION

OVERLOAD	105 ~ 150% rated output power	
OVERVOLTAGE	30 ~ 36V	59 ~ 66V
OVERTEMPERATURE	100°C ± 5°C (TSW: detect on heat sink of power switch)	

Protection type: Constant current limiting, recovers automatically after fault condition is removed
Protection type: Shut down overvoltage, re-power on to recover
Protection type: Shut down overvoltage, recovers automatically after temperature goes down

ENVIRONMENT

WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)
WORKING HUMIDITY	20 ~ 95% RH non-condensing
STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH
TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50°C)
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60 min. each long X,Y, Z axes
MOUNTING	Compliance to IEC60068-2-6

SAFETY & EMC

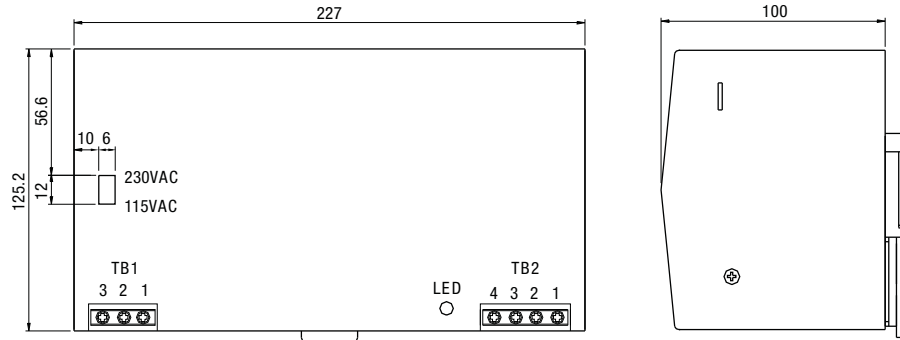
SAFETY STANDARDS	UL508 UL60950-1 EN60950-1 compliant
WITHSTAND VOLTAGE	I/P-O/P: 3KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC / 25°C / 70% RH
EMI CONDUCTION & RADIATION	Compliance to EN55011 (CISPR11); EN55022 (CISPR22); EN61204-3 Class B
HARMONIC CURRENT	Compliance to EN61000-3-2,-3
EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204; EN61204-3; EN61000-6-2 (EN50082-2); heavy industry level; criteria A
	The power supply is considered a component which will installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

OTHERS

MTBF	187.9K hrs min. MIL-HDBK-217K (25°C)
DIMENSION	227x125.2x100mm (WxHxD)
PACKING	2.6Kg; 6pcs / 16.6Kg / 1.75CUFT

All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.

Mechanical Specification



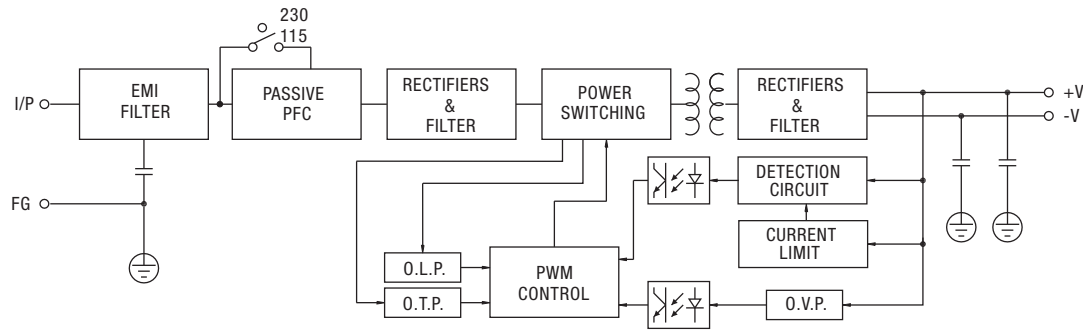
TB1 Terminal Pin. No Assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG \oplus

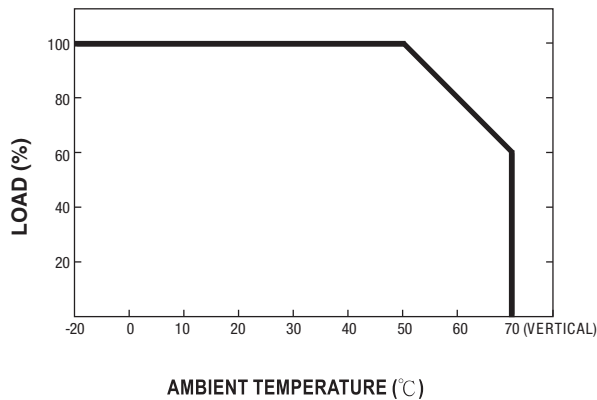
TB2 Terminal Pin. No Assignment

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

Block Diagram



Derating Curve



Output Derating VS Input Voltage

