

## 240W 48VDC Single Output DIN-Rail Industrial Power Supply

SD.PE-0002-MW is a 240W single output DC industrial power supply unit. It is ideal to provide sufficient 48VDC power to industrial PoE switch MIS series products. The power supply unit accepts a full range of 90V – 264V AC input voltage and provides 48V DC power output for the industrial switches or other appliances of up to 240W of power consumption.

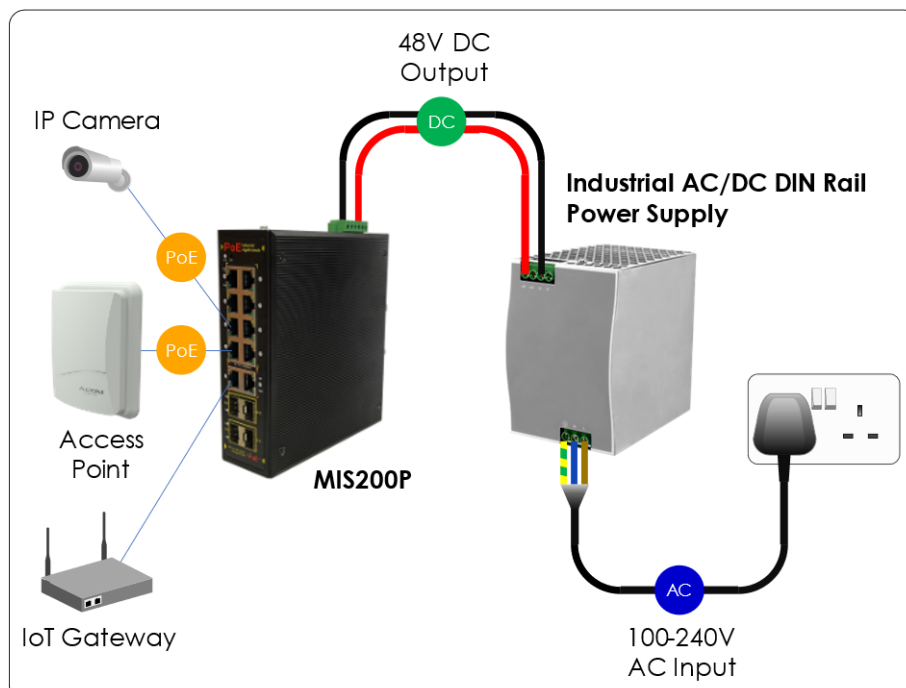
With the DIN-rail mounting kit, the power supply unit can be installed on TS-35/7.5 or TS-35/15 mounting rails. The unit's body is 63mm in width, allowing for space-saving inside cabinets.

The SD.PE-0002-MW is designed with metal housing that enhances the unit's power dissipation. With working efficiency up to 90%, it can operate at the ambient temperature between -20°C and 70°C under air convection. It also comes with various protection features such as overload, over voltage and over temperature to provide a safe and stable power supply solution for industrial applications.



### Key Features and Benefits

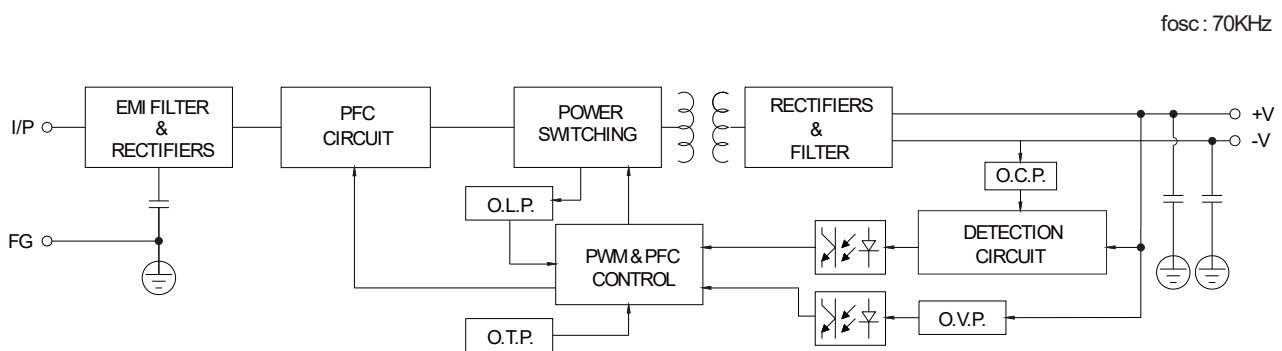
- Universal AC input
- Built-in active PFC function
- Protections: short circuit, overload, over voltage and over temperature
- Cooling by free air convection
- DIN rail TS-35/7.5 or 15 installation
- UL 508 (industrial control equipment) approved
- BS EN61000-6-2 (BS EN50082-2) industrial immunity level
- 100% full load burn-in test



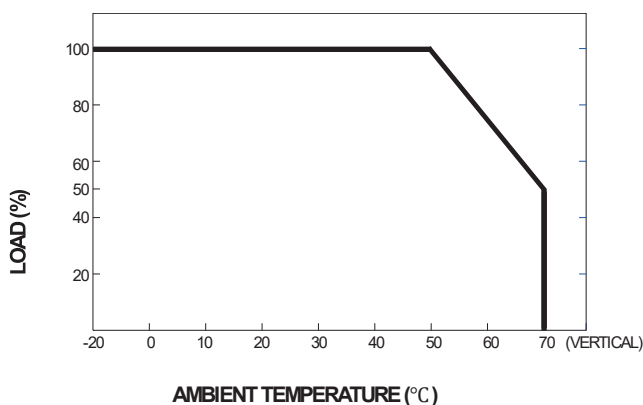
OUTPUT	DC VOLTAGE	48V
	RATED CURRENT	5A
	CURRENT RANGE	0 ~ 5A
	RATED POWER	240W
	RIPPLE & NOISE (max.) <sup>Note 2</sup>	150mVp-p
	VOLTAGE ADJ. RANGE	48 ~ 55V
	VOLTAGE TOLERANCE <sup>Note 3</sup>	±1.0%
	LINE REGULATION	±0.5%
	LOAD REGULATION	±1.0%
	SETUP, RISE TIME	1500ms, 100ms/230VAC; 3000ms, 100ms/115VAC at full load
	HOLD UP TIME (Typ.)	28ms/230VAC; 22ms/115VAC at full load
INPUT	VOLTAGE RANGE <sup>Note 4</sup>	90 ~ 264VAC, 127 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF > 0.98/115VAC, PF > 0.95/230VAC at full load
	EFFICIENCY (Typ.)	90%
	AC CURRENT (Typ.)	2.5A/115VAC; 1.3A/230VAC
	INRUSH CURRENT (Typ.)	20A/115VAC; 35A/230VAC
	LEAKAGE CURRENT	<1mA/240VAC
PROTECTION	OVERLOAD	105 ~ 130% rated output power Protection type: Constant current limiting, recovers automatically after fault condition is removed
	OVER VOLTAGE	56 ~ 65V Protection type: Shut down o/p voltage, re-power on to recover
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down
ENVIRONMENT	WORKING TEMP.	-20 ~ +70°C (Refer to "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	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6
SAFETY & EMC <sup>Note 4</sup>	SAFETY STANDARDS	UL508, TUV BS EN/EN62368-1, EAC TP TC 004, BSMI CNS14336-1, BIS IS13252(Part1): 2010/IEC 60950-1:2005, KC K60950-1 (for 48V only) approved; (meet BS EN/EN60204-1)
	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC; I/P-FG: 2KVAC; O/P-FG: 0.5KVAC
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500VDC / 25°C / 70% RH
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020, CNS13438, KSC 9832 (for 48V only)
EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2 (BS EN/EN50082-2), BS EN/EN61204-3, heavy industry level, EAC TP TC 020, KSC 9835 (for 48V only)	
OTHERS	MTBF	1645.2K hrs min. Telcordia SR-332 (Bellcore); 230.2K hrs min. MIL-HDBK-217F (25°C)

	OTHERS DIMENSION	63*125.2*113.5mm (W*H*D)
	PACKING	1Kg; 12pcs/13Kg/1.22CUFT
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 <math>\mu</math>F &amp; 47 <math>\mu</math>F parallel capacitor.</li> <li>3. Tolerance: includes set up tolerance, line regulation and load regulation.</li> <li>4. Derating may be needed under low input voltage. Please check the derating curve for more details.</li> <li>5. Installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended.</li> <li>6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</li> <li>7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m (6500ft).</li> </ol>	

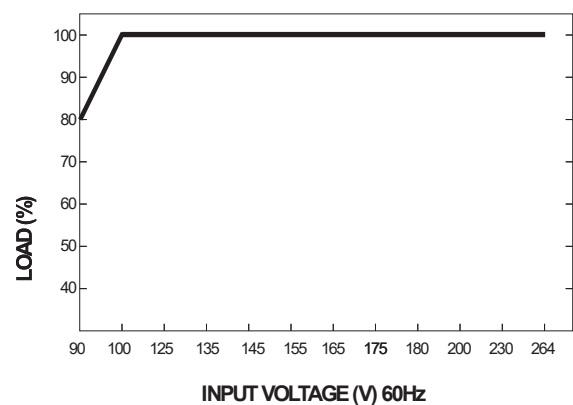
**Block Diagram**



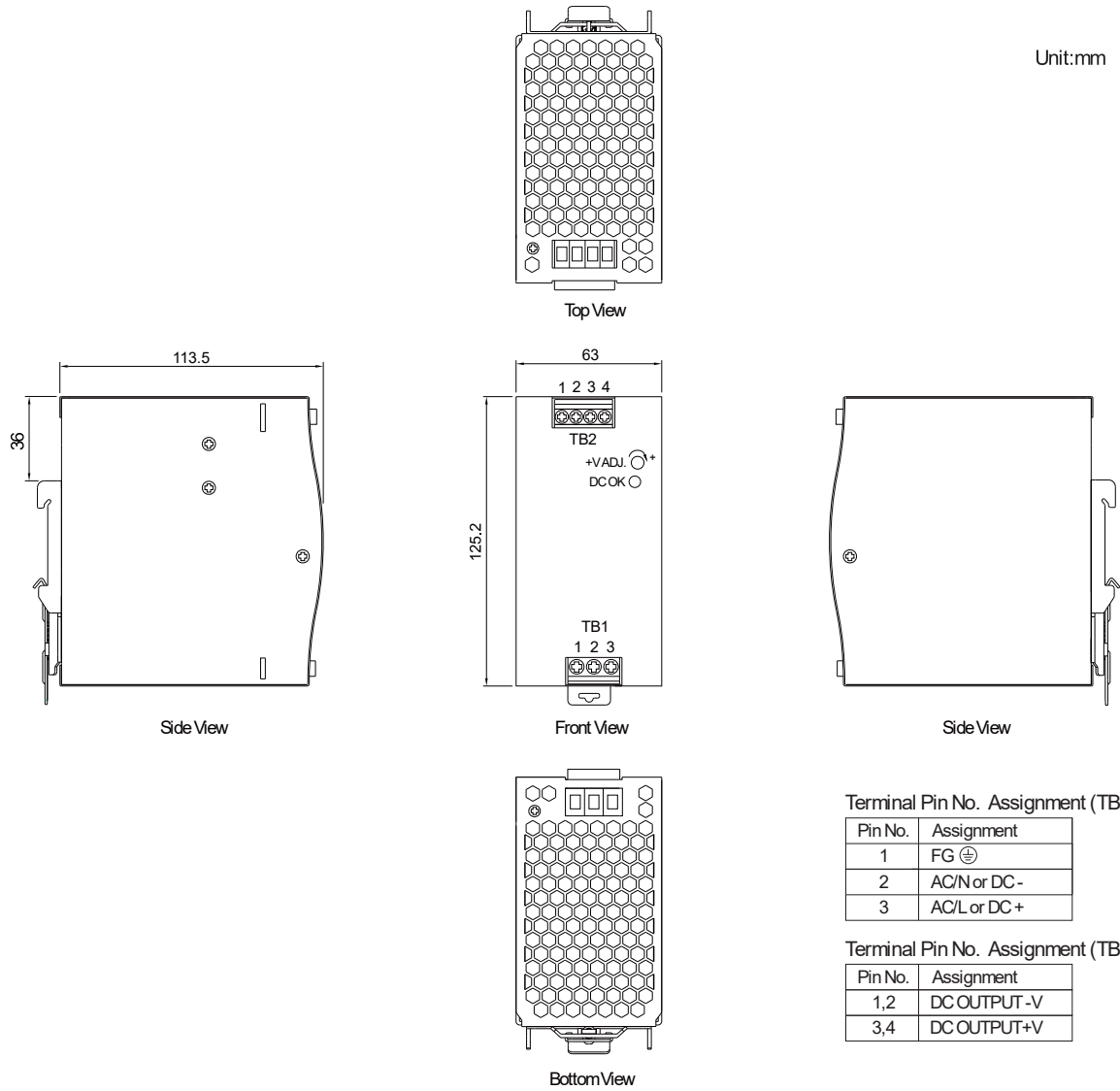
**Derating Curve**



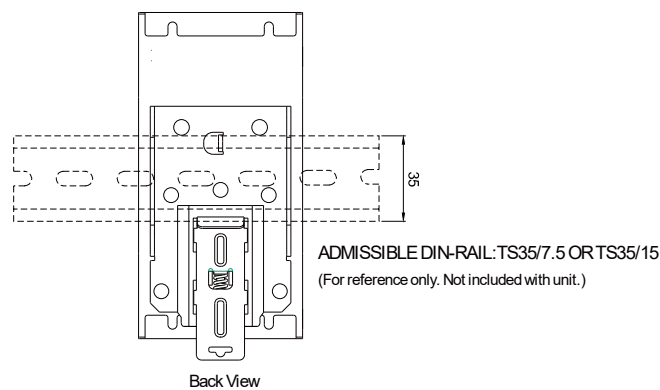
**Static Characteristics**



**Mechanical Specifications**



**Installation Instruction**



Product Ordering Information	
Standard Package	
Part No.: SD.PE-0002-MW	• 240W 48VDC Single Output DIN-Rail Industrial Power Supply
Contact Us	
• Email: <a href="mailto:sales@altaitechnologies.com">sales@altaitechnologies.com</a> or <a href="mailto:info@altaitechnologies.com">info@altaitechnologies.com</a>	

PS240W48V-PB-240812

The information contained herein is subject to change without prior notice.