

## 120W 48VDC Single Output DIN-Rail Industrial Power Supply

SD.PE-0001-MW is a 120W 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 120W of power consumption.

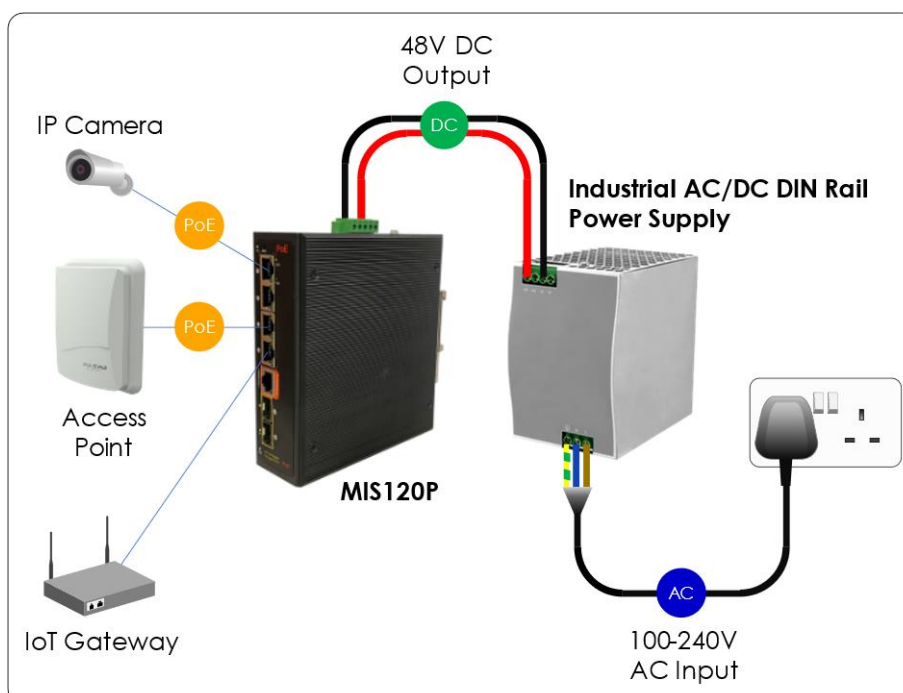
With the DIN-rail mounting kit, the power supply unit can be installed on TS-35/7.5 or TS-35/15 mounting rails. The unit's body is 40mm in width, allowing for space-saving inside cabinets.

The SD.PE-0001-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

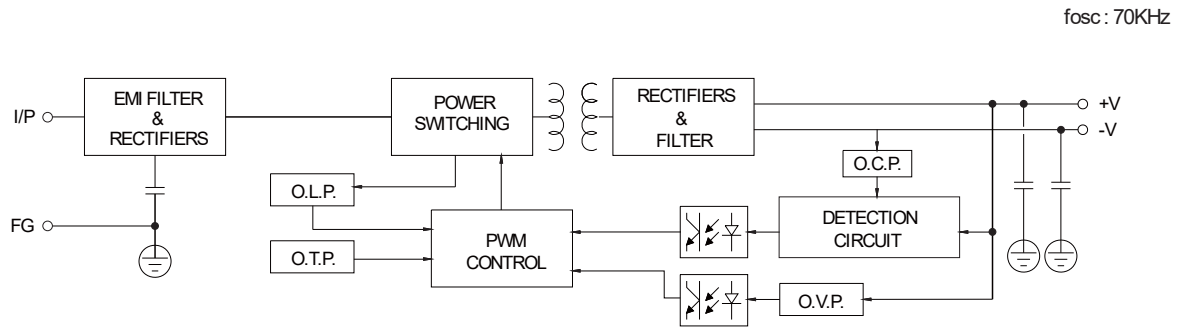
- Universal AC input
- Protections: short circuit, overload, over voltage and over temperature
- Cooling by free air convection
- DIN rail TS-35/7.5 or 15 installation
- UL 508 (industrial control equipment) approved
- BS EN61000-6-2 (BS EN50082-2) industrial immunity level
- 100% full load burn-in test



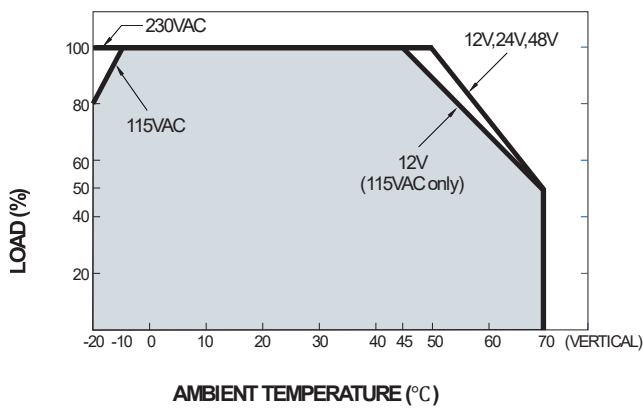
OUTPUT	DC VOLTAGE	48V
	RATED CURRENT	2.5A
	CURRENT RANGE	0 ~ 2.5A
	RATED POWER	120W
	RIPPLE & NOISE (max.) <sup>Note 2</sup>	150mVp-p
	VOLTAGE ADJ. RANGE	48 ~ 55V
	VOLTAGE TOLERANCE <sup>Note 3</sup>	±1.0%
	LINE REGULATION	±0.5%
	LOAD REGULATION	±1.0%
	SETUP, RISE TIME	1200ms, 60ms/230VAC; 2500ms, 60ms/115VAC at full load
	HOLD UP TIME (Typ.)	16ms/230VAC; 10ms/115VAC at full load
INPUT	VOLTAGE RANGE <sup>Note 6</sup>	90 ~ 264VAC, 127 ~ 370VDC [DC input operation possible by connecting AC/L(+), AC/N(-)]
	FREQUENCY RANGE	47 ~ 63Hz
	EFFICIENCY (Typ.)	89%
	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, re-power on to recover	
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 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
	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
OTHERS	MTBF	2636.8K hrs min. Telcordia SR-332 (Bellcore); 453.3K hrs min. MIL-HDBK-217F (25°C)
	OTHERS DIMENSION	40*125.2*113.5mm (W*H*D)

	PACKING	0.6Kg; 20pcs/13Kg/1.16CUFT
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>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>Tolerance: includes set up tolerance, line regulation and load regulation.</li> <li>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>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>Derating may be needed under low input voltage. Please check the derating curve for more details.</li> <li>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>	

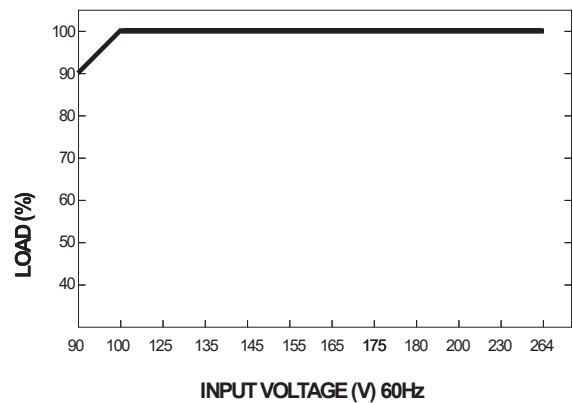
**Block Diagram**



**Derating Curve**

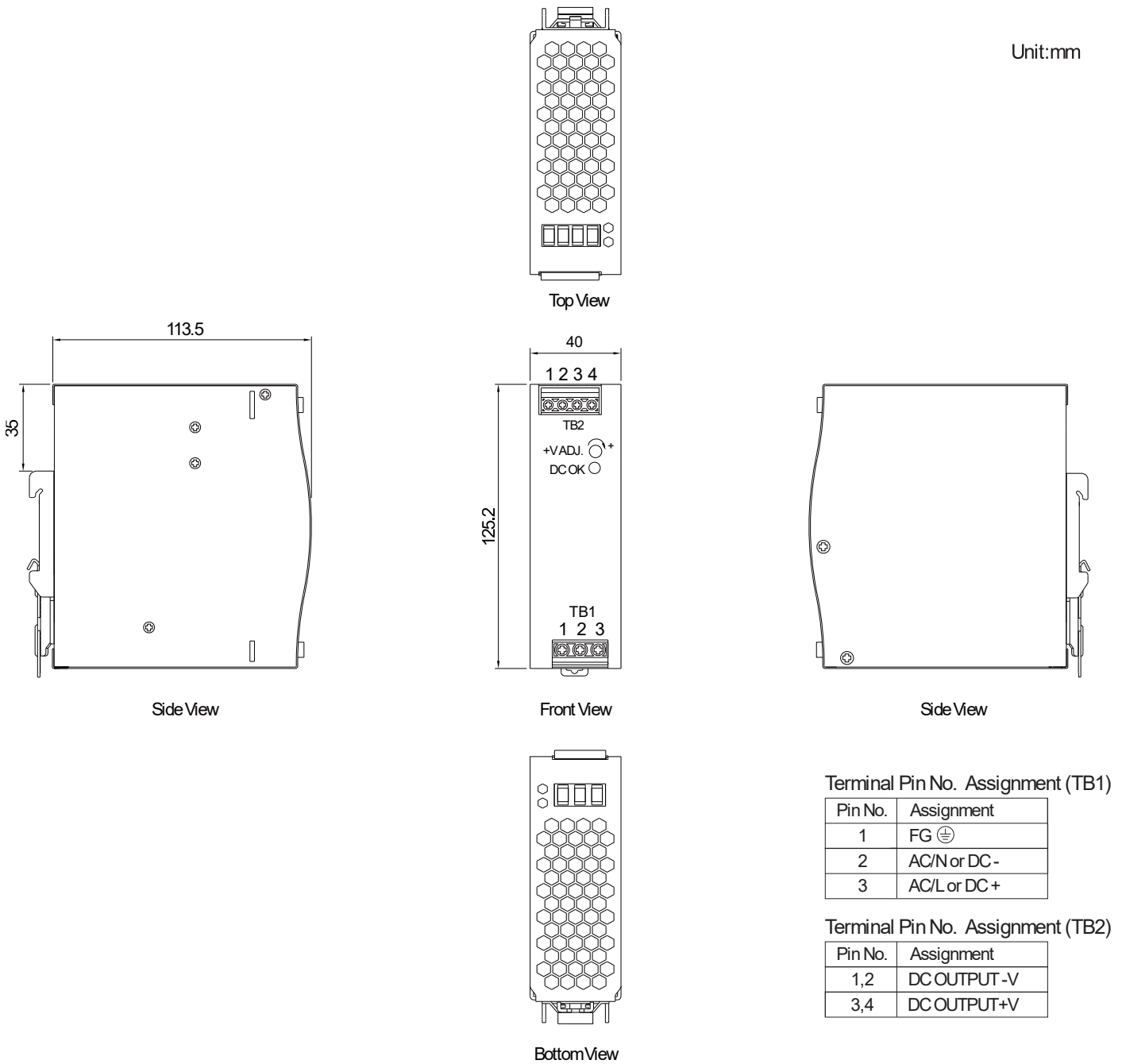


**Static Characteristics**



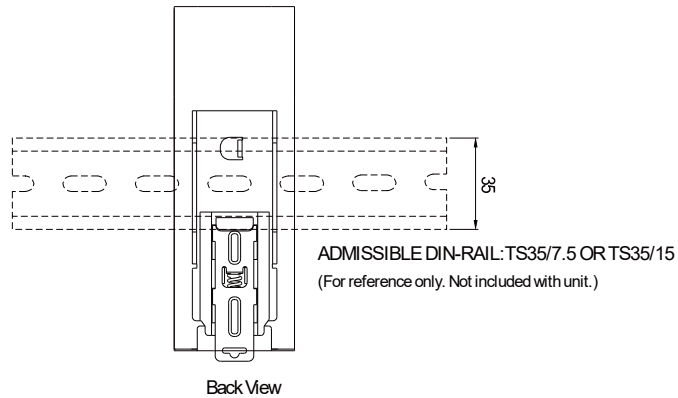
**Mechanical Specifications**

Unit:mm



**Installation Instruction**

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**Product Ordering Information****Standard Package**

Part No.: SD.PE-0001-MW

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**Contact Us**

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PS120W48V-PB-240812

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