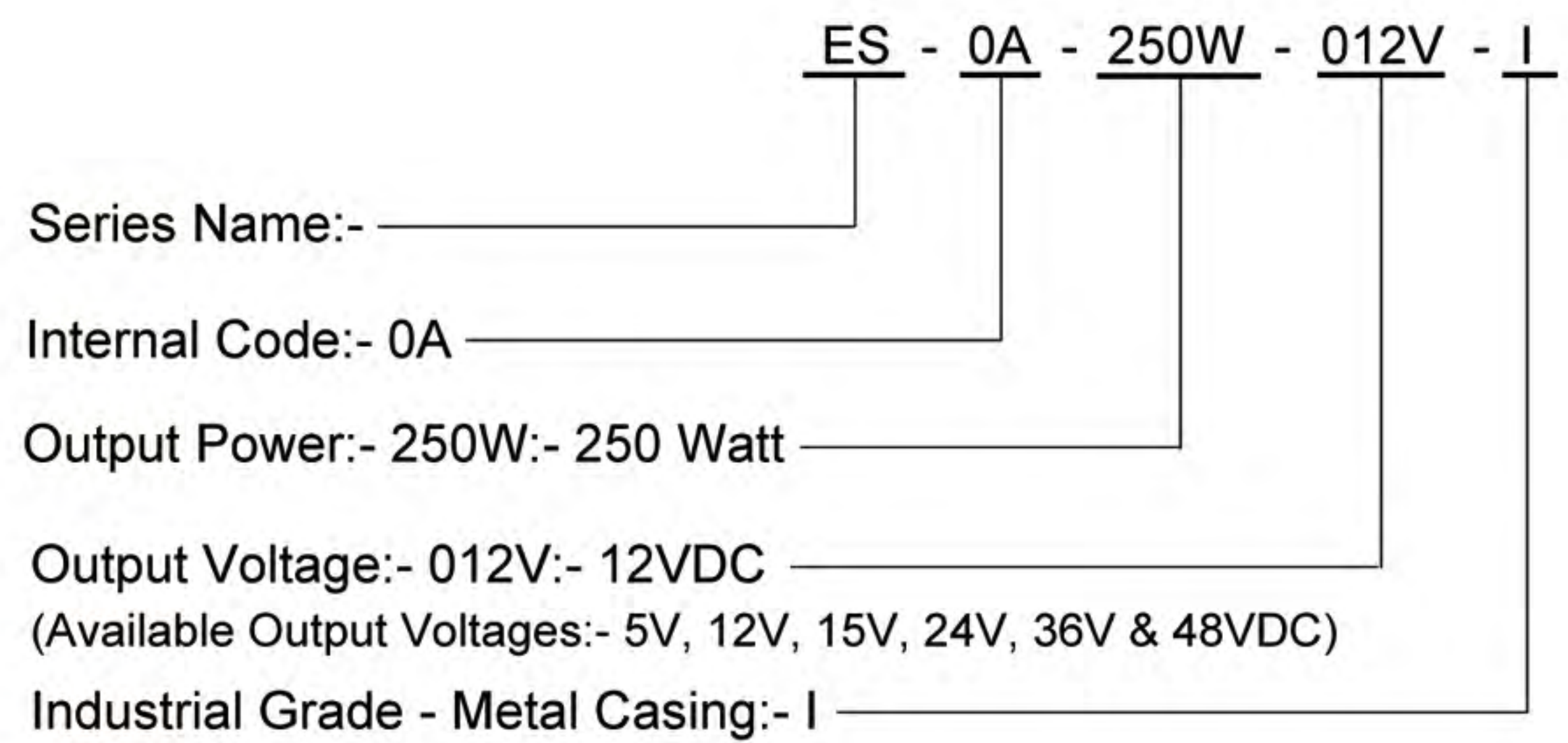
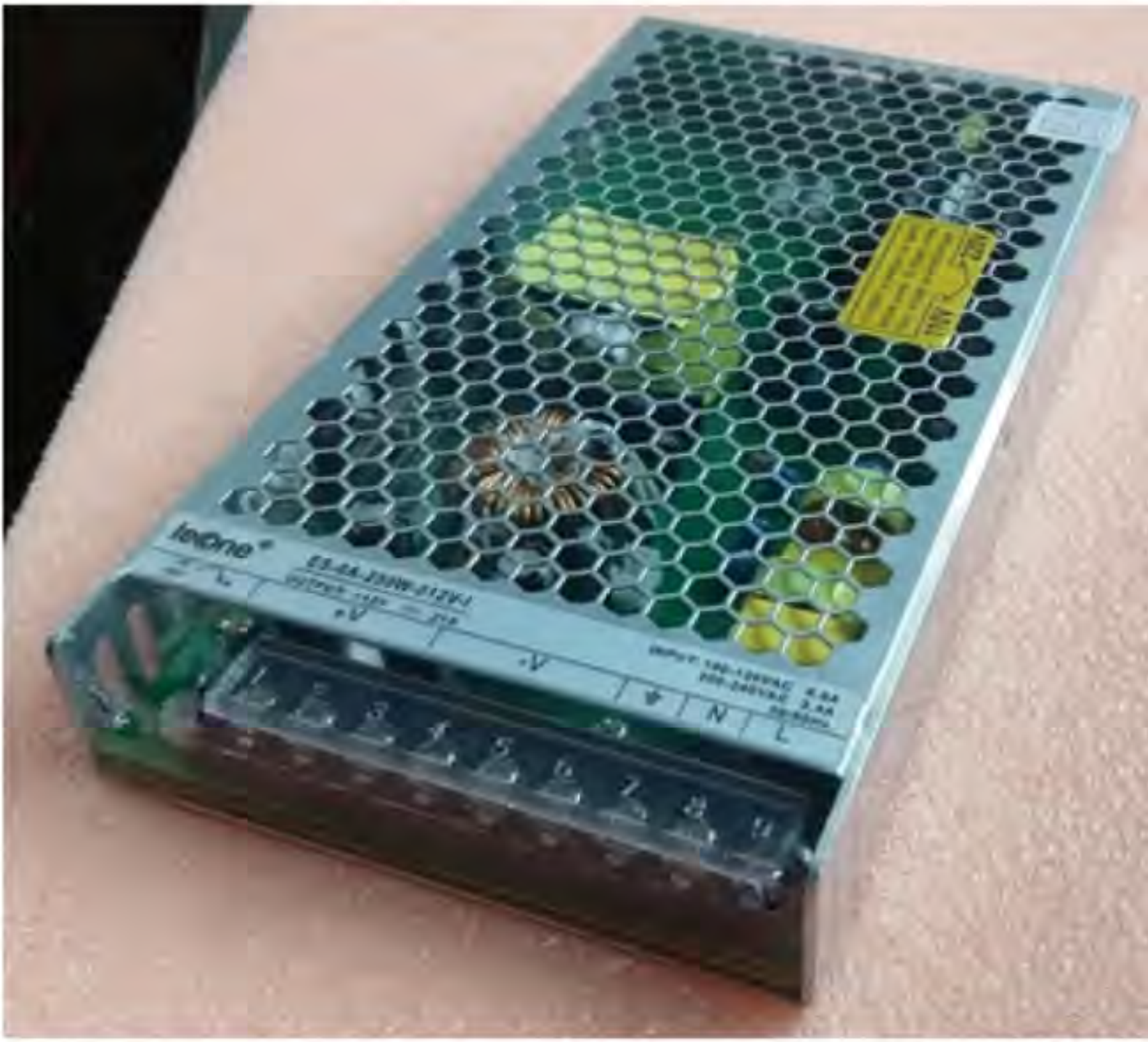

leOne[®]

ES-0A-250W

POWER SUPPLY

Single Output Switching Power Supply



Features:-

- AC input range selected by switch(115/230)
- Withstand 300VAC surge input for 5 second
- Miniature size and 1U low profile,low weight
- Protections:Short circuit/Overload/Over voltage
Over temperature
- Forced air cooling by built-in DC fan
- Built-in cooling fan ON-OFF control
- No load power consumption < 0.75W
- Operating altitude up to 5000 meters (Note6)
- LED indicator for power on
- 100% full load burn-in test
- High efficiency,long life and high reliability

Applications:-

- Industrial automation machinery
- Industrial control system
- Mechanical and electrical equipment
- Electronic instruments,equipments or

Descriptions:-

ES-0A-250W series is a 250W single output enclosed type power supply with 30mm of low profile design. Adopting the input of 115VAC or 230VAC (selectable by switch), the entire series provides an output voltage line of 5V, 12V, 15V, 24V, 36V & 48V.

In addition to the high efficiency up to 89%, with the built-in long life fan this can work -25~ 70°C with full load. Delivering an extremely low no load power consumption (less than 0.75W), it allows the end system to easily meet the worldwide energy requirement. ES-0A-250W has the complete protection functions and 5G anti-vibration capability. ES-0A-250W series serve as a high price to performance power supply solution for various industrial applications.

Specifications:-

Model		005V	012V	015V	024V	036V	048V
Output	DC voltage	5V	12V	15V	24V	36V	48V
	Rated current	50A	21A	16.7A	10.5A	7A	5.2A
	Current range	0~50A	0~21A	0~16.7A	0~10.5A	0~7A	0~5.2A
	Rated power	250W	252W	250.5W	252W	252W	250W
	Ripple&noise	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	DC voltage ADJ. range	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%
	Voltage tolerance <small>Note.3</small>	± 3%	± 2%	± 1%	± 1%	± 1%	± 1%
	Line regulation <small>Note.4</small>	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	Load regulation <small>Note.5</small>	± 2%	± 1%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	Setup, rise, hold up time	800ms, 50ms, 16ms/230VAC(full load)					
Input	Voltage range	90~132VAC/180~264VAC(selected by switch) ,240~373VDC(Withstand 300VAC surge input for 5 second)					
	Frequency range	47~63Hz					
	AC current	6.8A/115VAC 3.4/230VAC					
	Efficiency	83%	85%	86%	88%	88%	89%
	Inrush current	Cold start 55A/230VAC					
	leakage current	< 2mA/240VAC					
Protection	Overload	Rated output power 110% ~ 140% Start overload protection					
		Protection type: hiccup mode, auto-recovery after fault condition is removed					
	Over voltage	Rated output voltage 115%~135% Start over voltage protection					
		Protection type: cut off the output, auto-recovery after fault condition is removed					
Over temperature	100°C±10°C(RTH3 detect beside magnetic core)						
	Protection type: cut off the output, auto-recovery after the temperature become normal						
Function	Fan ON-OFF control	RTH3 ≥ 50°C Fan ON, ≤ 40°C Fan OFF					
Environment	Working temperature	-25°C ~ +70°C(Please refer to "derating curve")					
	Working humidity	20%~90%RH Non-condensing					
	Storage temp& humidity	-40°C ~ +85°C; 10%~95%RH Non-condensing					
	Withstand vibration	10~500Hz, 3G 10min./1Cycle, Period for 60min, Each axes					
Safety	Withstand voltage	I/P-O/P: 3KVAC I/P-FG: 2KVAC O/P-FG: 1.25KVAC					
	Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC/25°C/70%RH					
Others	Dimension	215*115*30 mm (L*W*H)					
	Weight	0.76kg/20pcs/16.2kg/0.024m³/0.85CUFT					
	MTBF	≥ 295K hrs min. MIL-HDBK-217F(25°C)					

Note: 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.

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

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

4. Line regulation is measured from low line to high line at rated load.

5. Load regulation is measured from 0% to 100% rated load

6. The ambient temperature derating of 5°C/1000 m is needed for operating altitude greater than 2000m(6500ft)

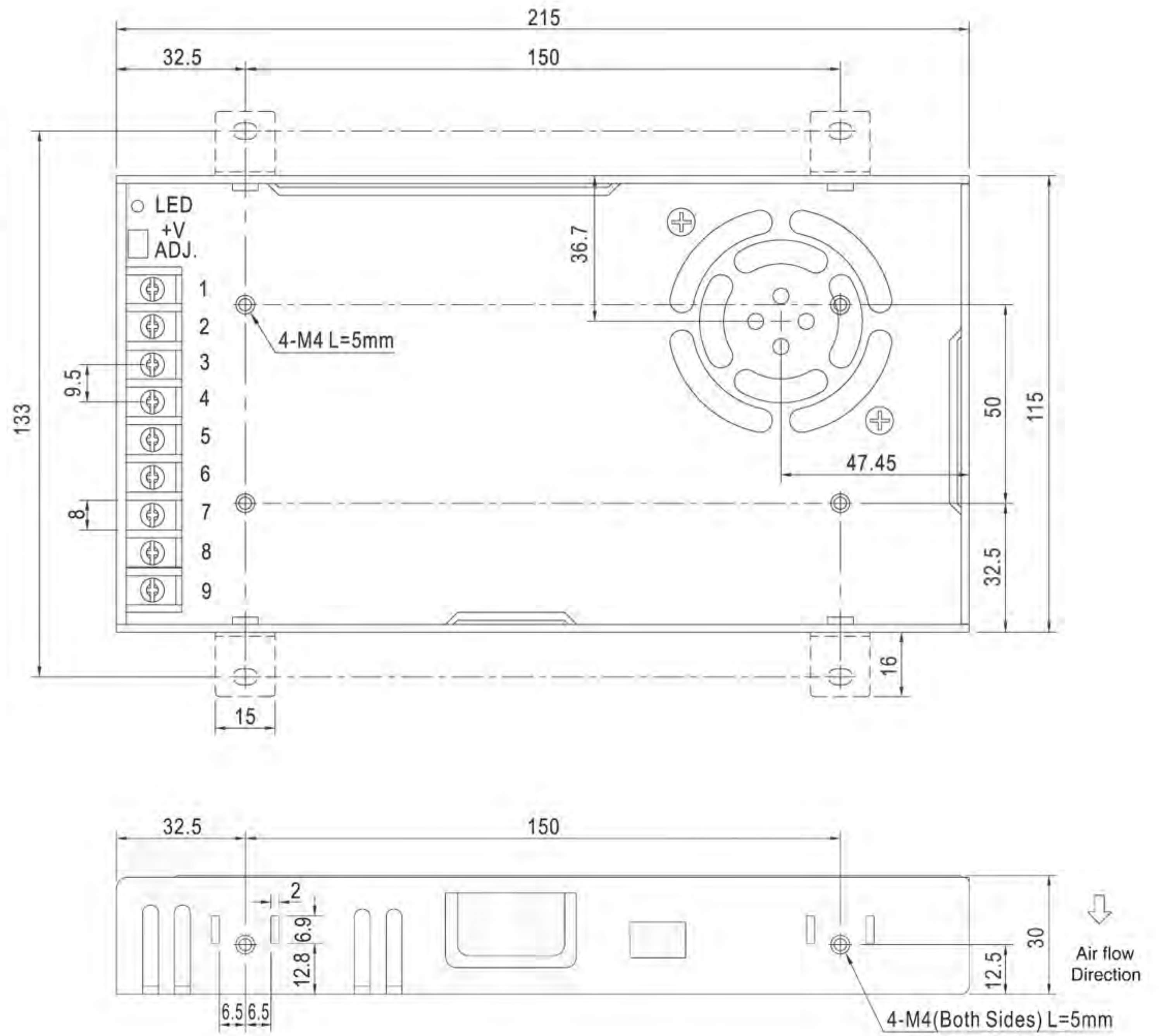
7. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests.

Mechanical Specifications:-

Unit:mm

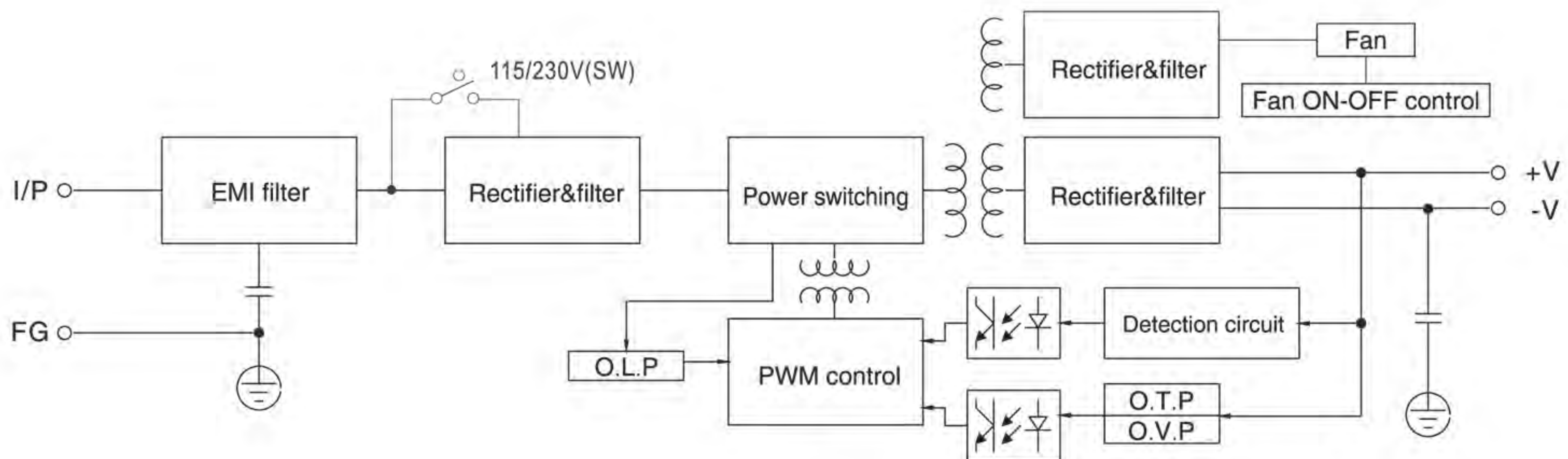
Terminal Pin No.Assignment

Pin No.	Assignment	Pin No.	Assignment
1~3	DC OUTPUT +V	7	FG \perp
4~6	DC OUTPUT -V	8	AC/N
		9	AC/L

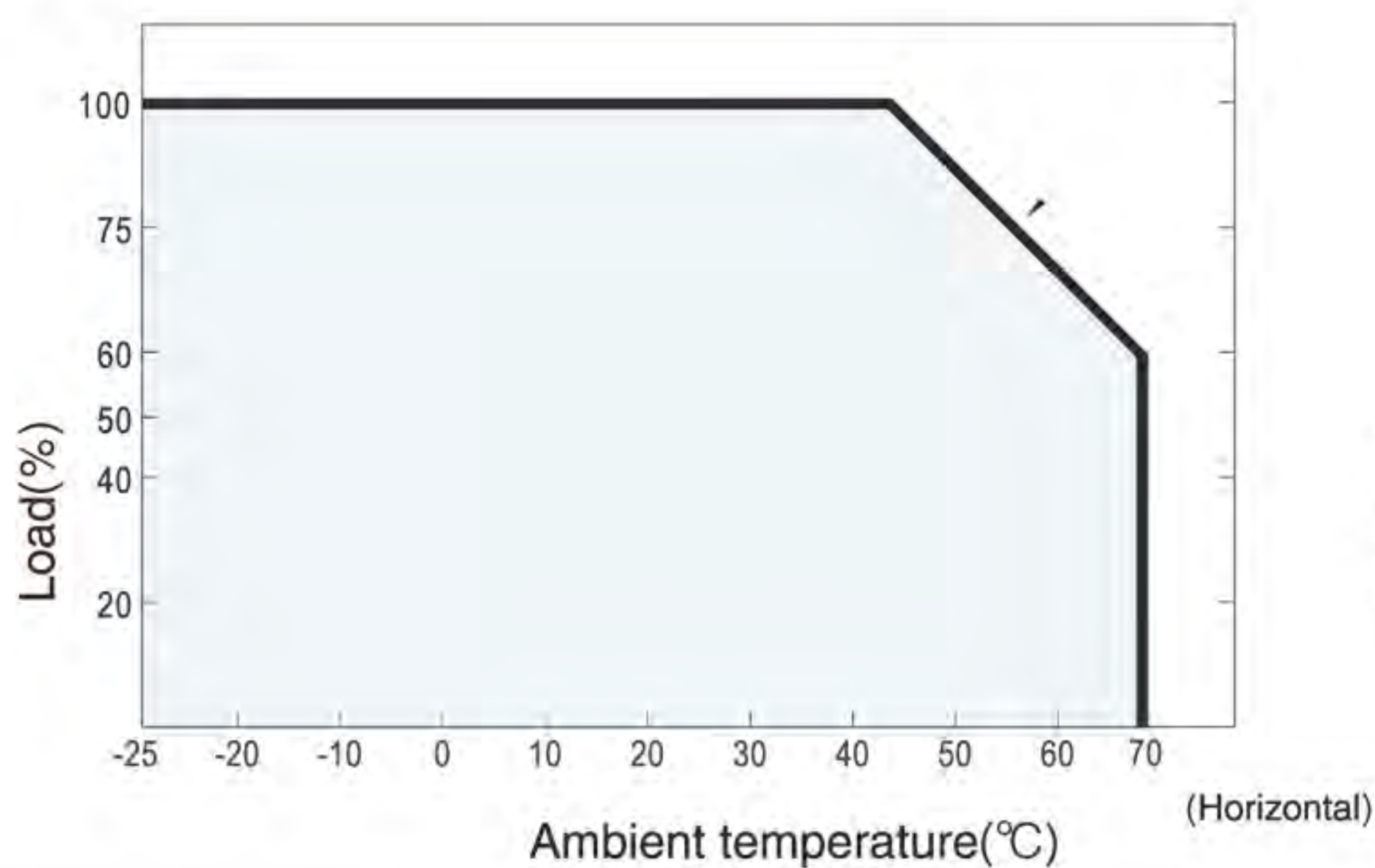


Block diagram:-

PWM Frequency: 65KHz



Derating Curve:-



Static Characteristic:-

