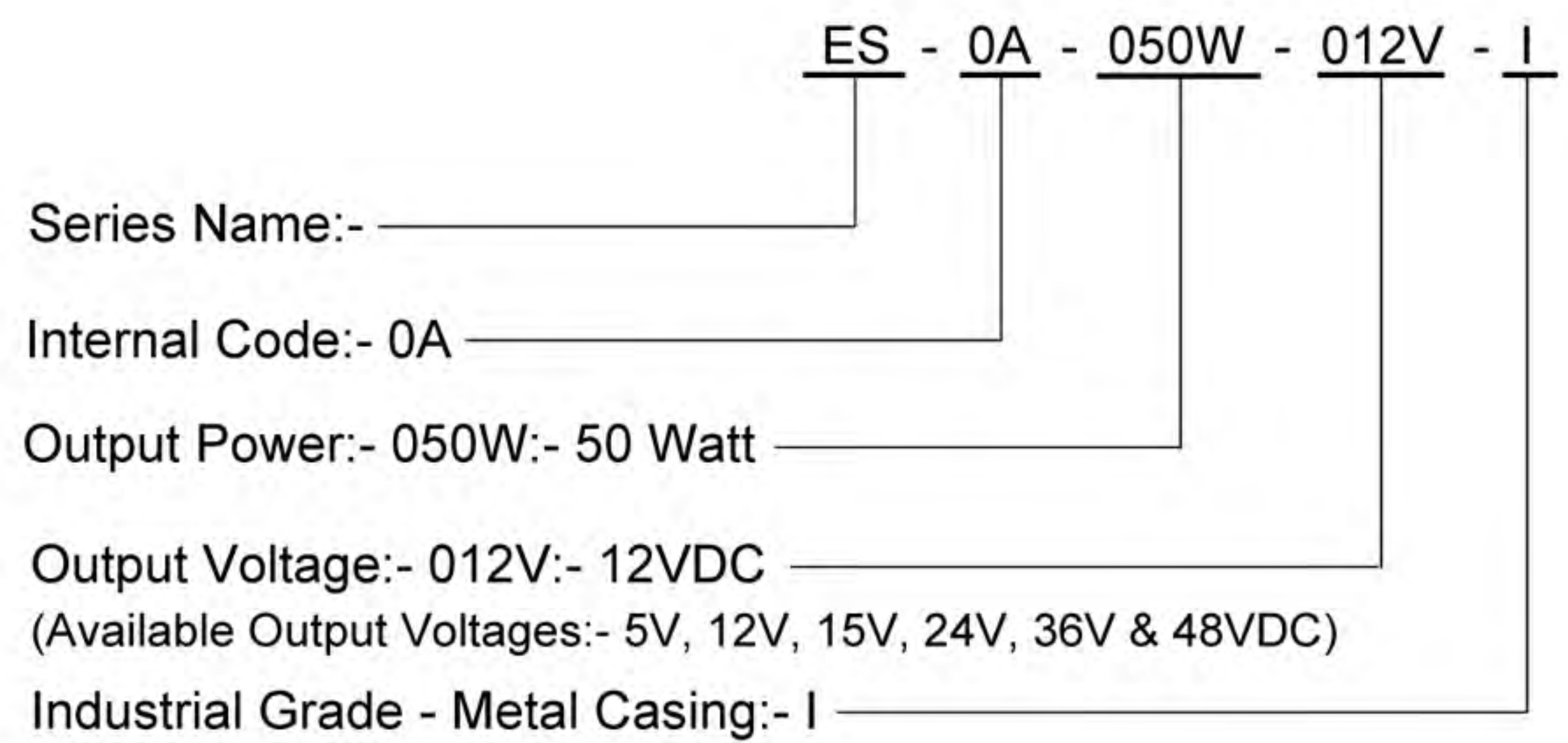

leOne[®]

ES-0A-050W

POWER SUPPLY

Single Output Switching Power Supply



Features:-

- Universal AC input/Full range
- Withstand 300VAC surge input for 5 second
- Miniature size and 1U low profile,low weight
- Protections:Short circuit/Overload/Over voltage
- Cooling by free air convection
- No load power consumption < 0.5W
- 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 apparatus

Descriptions:-

ES-0A-050W series is a 50W single output enclosed type power supply with 30mm of low profile design. Adopting the full range 85~264VAC input, the entire series provides an output voltage line of 5V, 12V, 15V, 24V, 36V and 48V.

In addition to the high efficiency up to 90%, the desing of metallic mesh case enhances the heat dissipation of ES-0A-050W that the whole series operates from -30°C through 70°C under air convection without a fan. Delivering an extremely low no load power consumption (less than 0.5W), it allows the end system to easily meet the worldwide energy requirement. ES-0A-050W has the complete protection functions and 5G anti-vibration capability. ES-0A-050W 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	10A	4.2A	3.4A	2.2A	1.45A	1.1A
	Current range	0~10A	0~4.2A	0~3.4A	0~2.2A	0~1.45A	0~1.1A
	Rated power	50W	50.4W	51W	52.8W	52.2W	52.8W
	Ripple&noise	100mVp-p	120mVp-p	120mVp-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,30ms,30ms/230VAC(full load)					
Input	Voltage range	90~264VAC ,127~373VDC(Withstand 300VAC surge input for 5 second)					
	Frequency range	47~63Hz					
	AC current	0.95A/115VAC 0.56/230VAC					
	Efficiency	83%	86%	87%	88%	89%	90%
	Inrush current	Cold start45A/230VAC					
	leakage current	< 0.75mA/240VAC					
Protection	Overload	Rated output power110% ~ 150%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					
Environment	Working temperature	-30°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	99*82*30 mm (L*W*H)					
	Weight	0.21kg/60pcs/13.6kg/0.025m³/0.88CUFT					
	MTBF	≥630K hrs min.					

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 finalequipment.The final equipment must be re-confirmed that it still meets EMC directives.

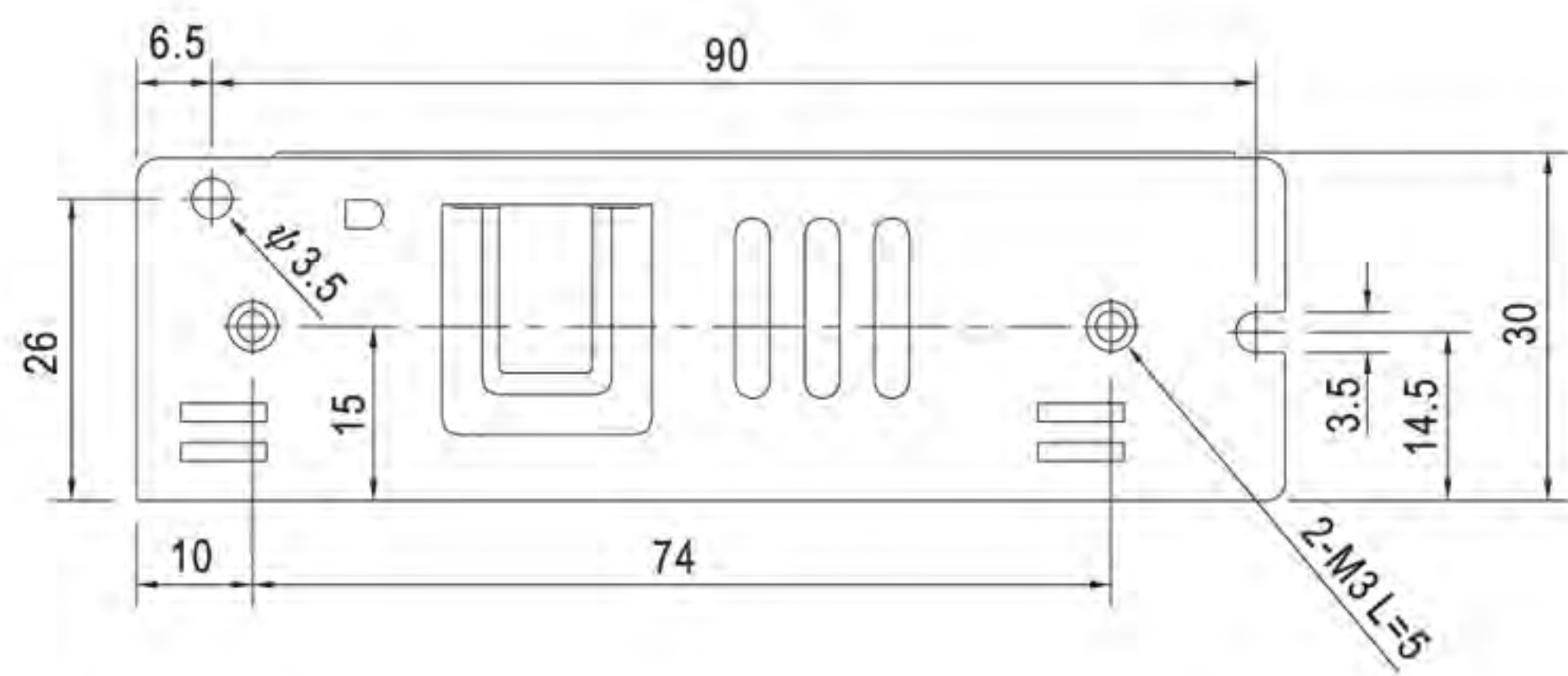
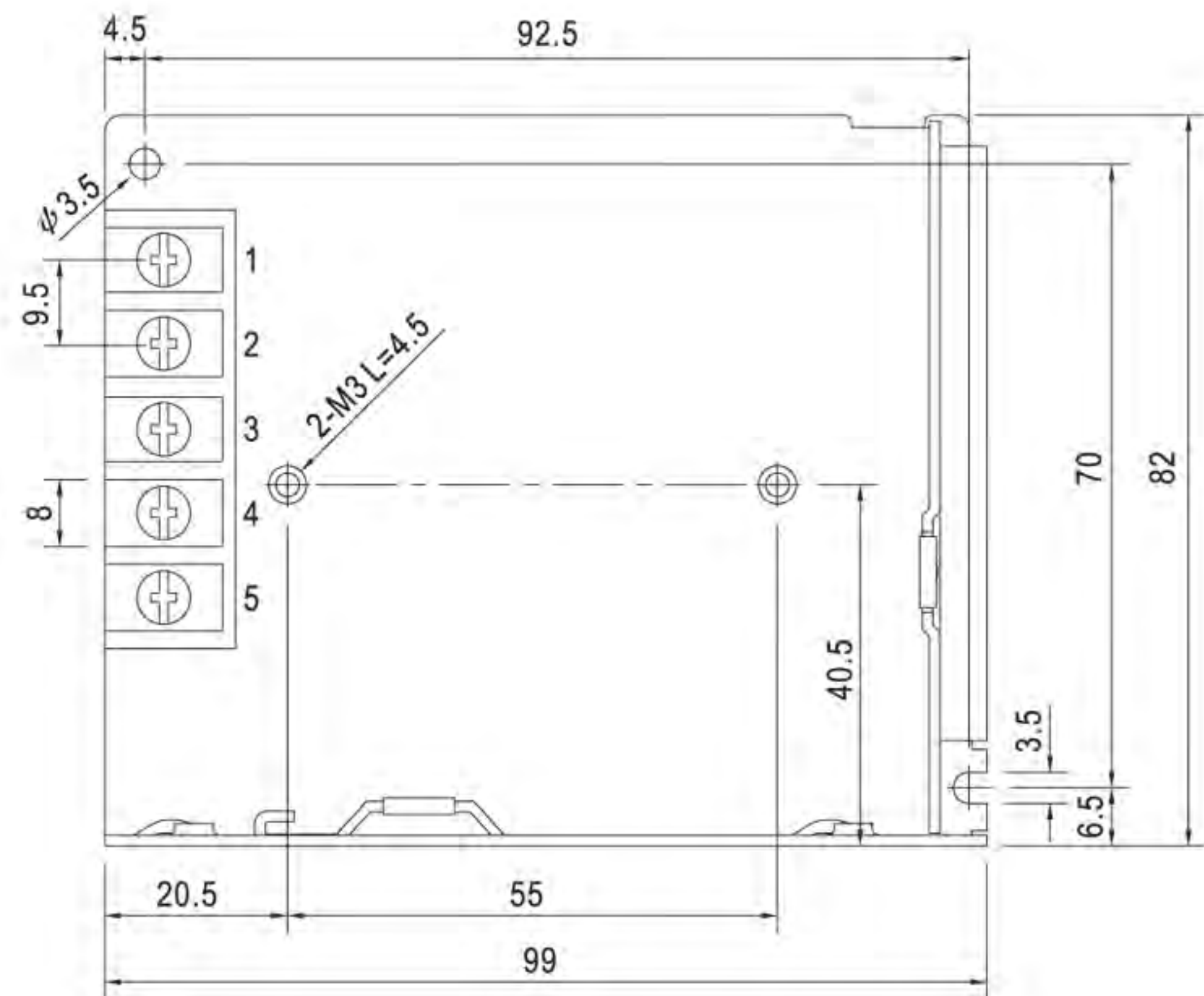
Mechanical Specifications:-

Unit:mm

Dimension: 99*82*30mm

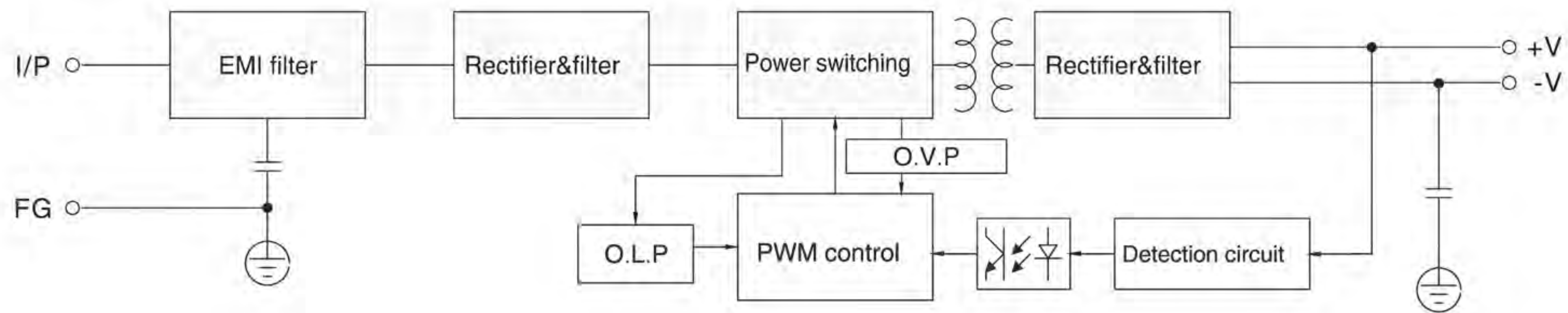
Terminal Pin No.Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/N	4	DC OUTPUT -V
2	AC/L	5	DC OUTPUT +V
3	FG \perp		

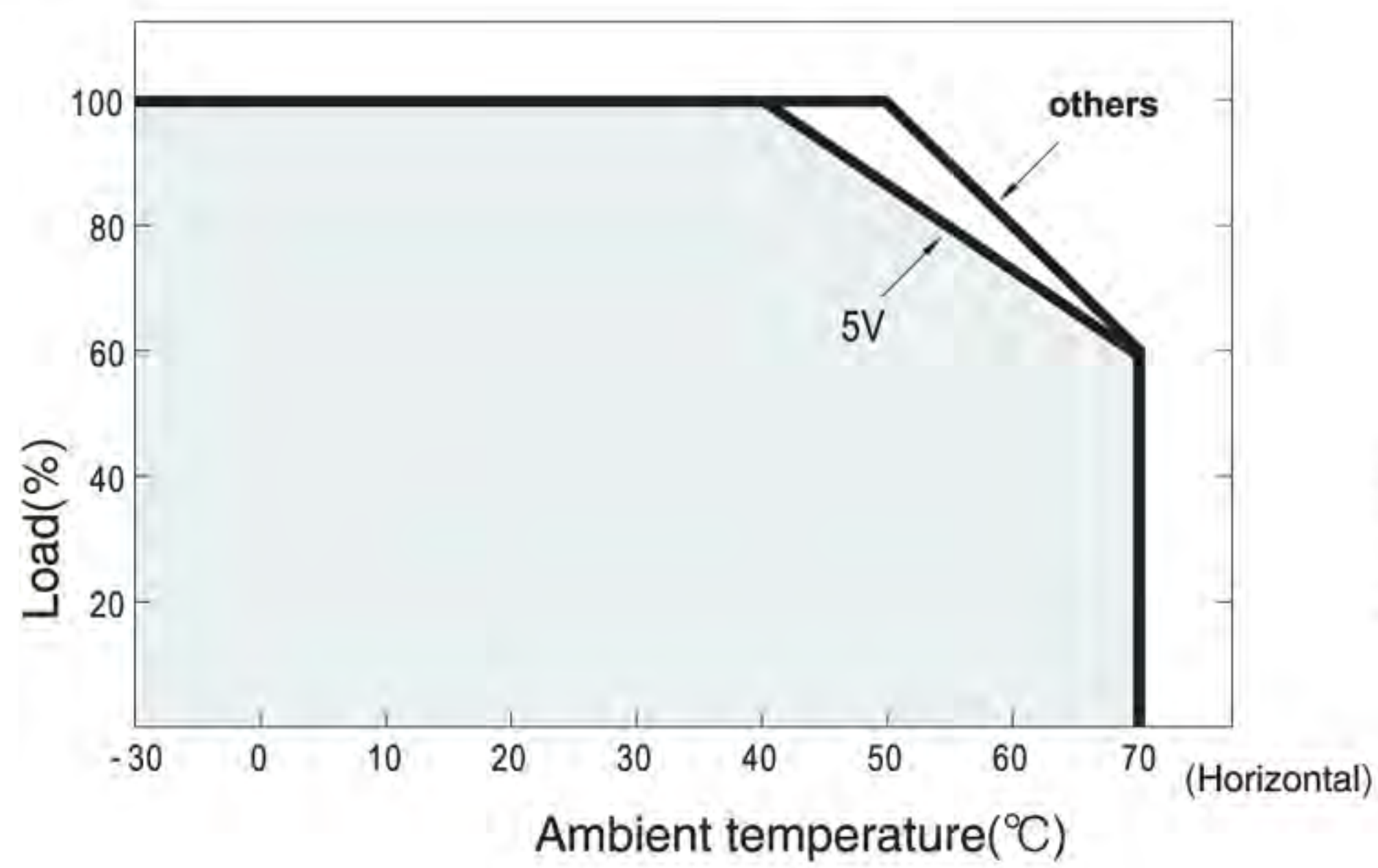


Block diagram:-

PWM Frequency: 65KHz



Derating Curve:-



Static Characteristic:-

