

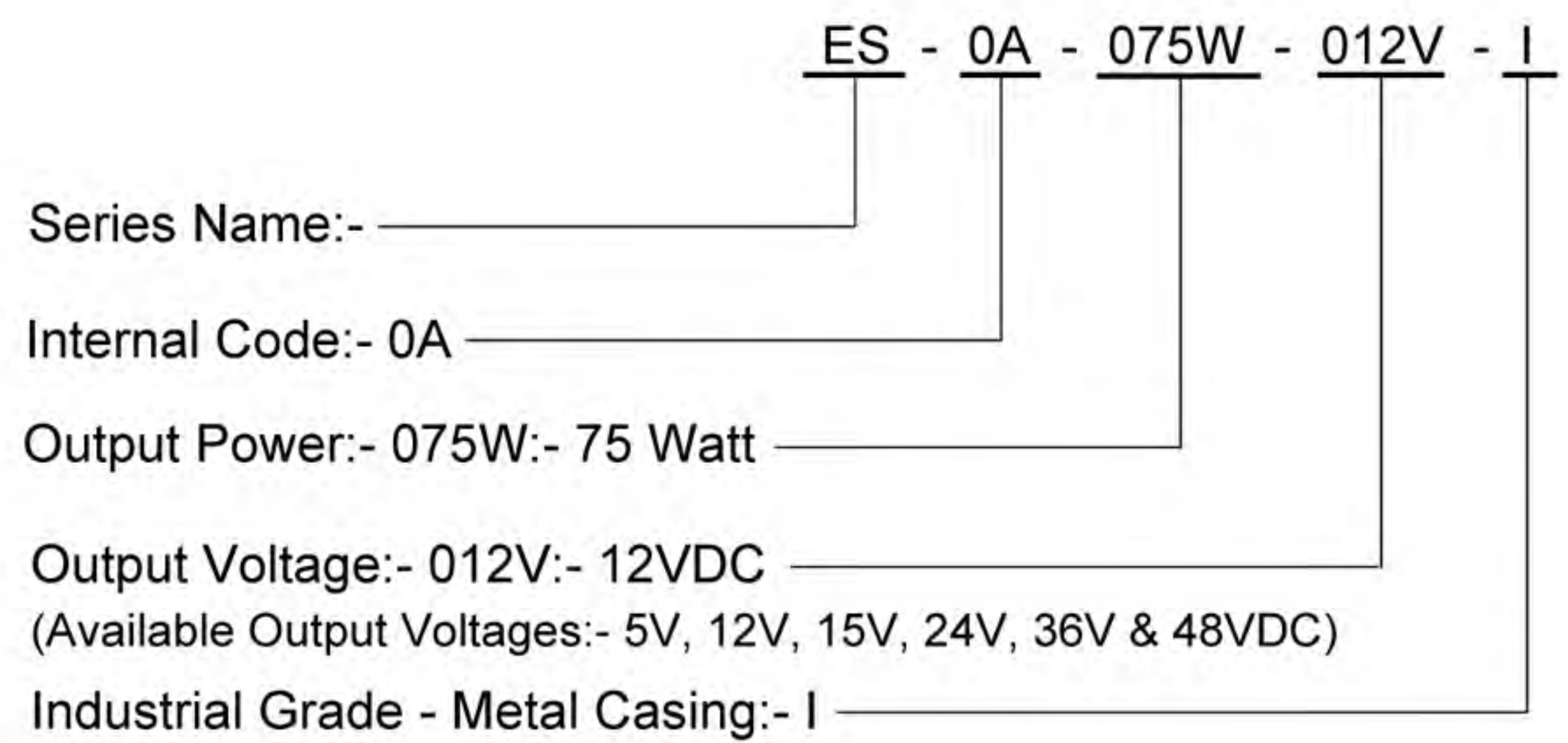
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**leOne**<sup>®</sup>

ES-0A-075W

**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-075W series is a 75W 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-075W 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-075W has the complete protection functions and 5G anti-vibration capability. ES-0A-075W 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	14A	6A	5A	3.2A	2.1A	1.6A
	Current range	0~14A	0~6A	0~5A	0~3.2A	0~2.1A	0~1.6A
	Rated power	70W	72W	75W	76.8W	75.6W	76.8W
	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	1.4A/115VAC 0.85/230VAC					
	Efficiency	86%	88%	89%	90%	91%	91%
	Inrush current	Cold start 50A/230VAC					
	leakage current	< 0.75mA/240VAC					
Protection	Overload	Rated output power 110% ~ 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*97*30 mm ( L*W*H )					
	Weight	0.25kg/45pcs/12.3kg/0.023m³/0.82CUFT					
	MTBF	≥660K 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.

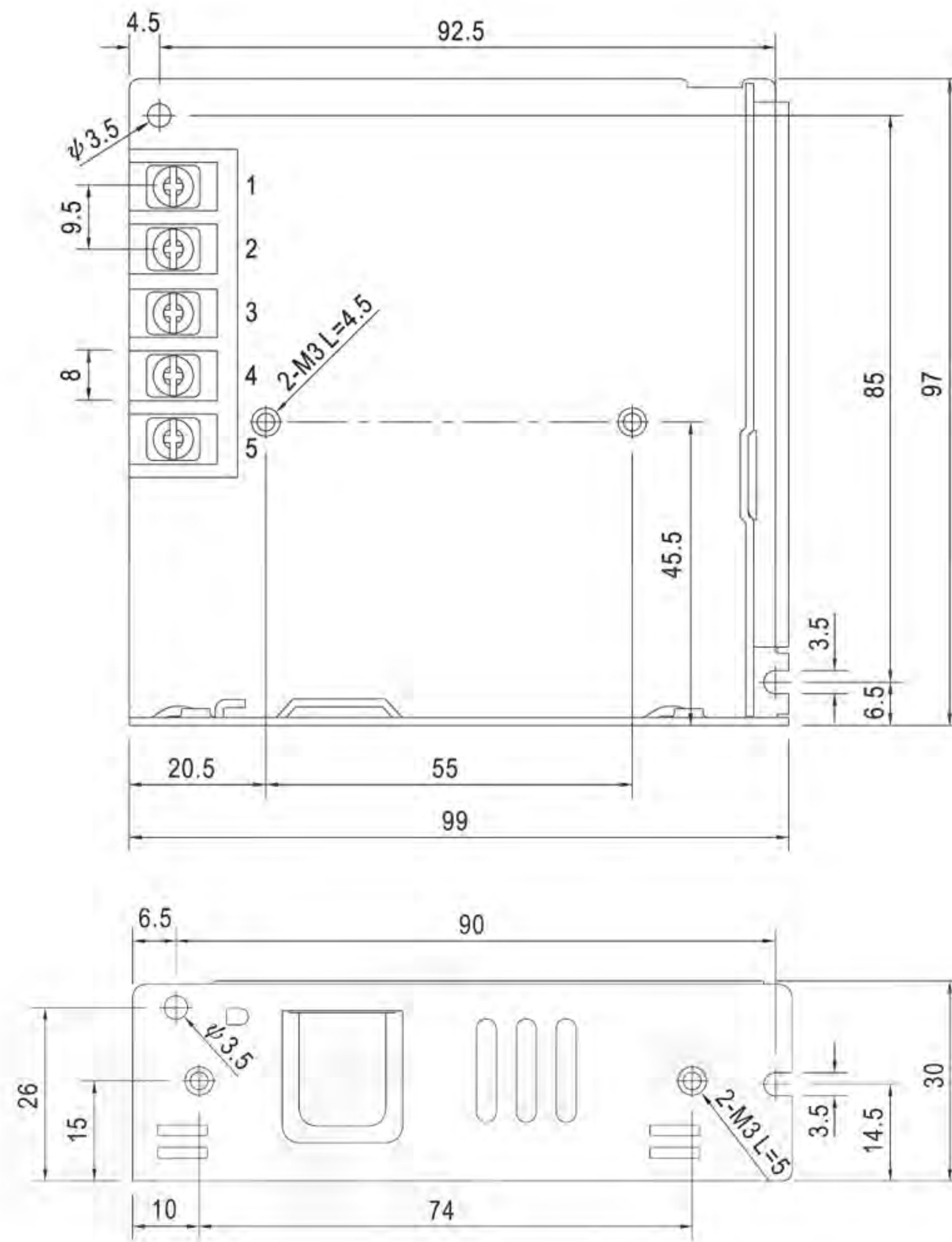
- Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- Tolerance : includes set up tolerance, line regulation and load regulation.
- Line regulation is measured from low line to high line at rated load.
- Load regulation is measured from 0% to 100% rated load
- The ambient temperature derating of 5°C/1000 m is needed for operating altitude greater than 2000m(6500ft)
- 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

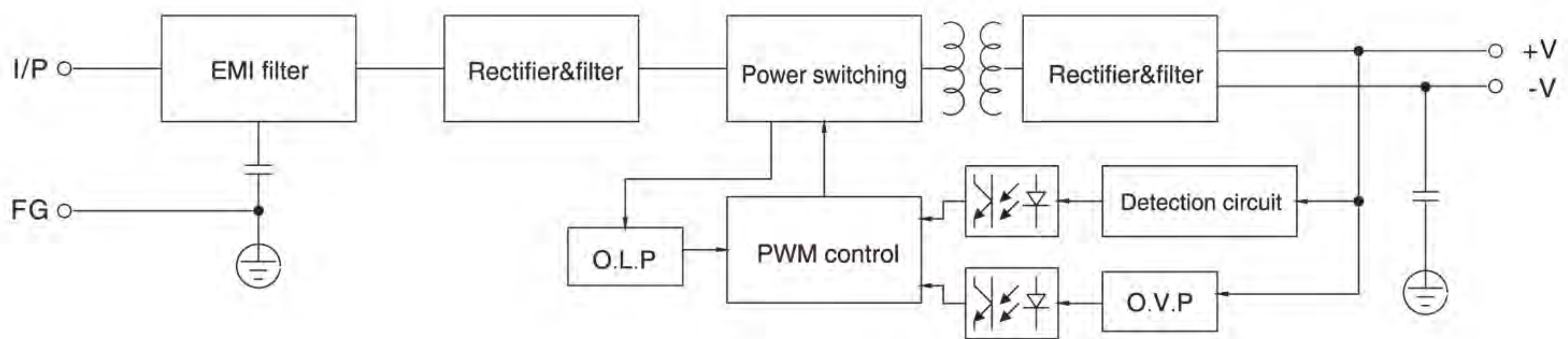
Terminal Pin No.Assignment

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

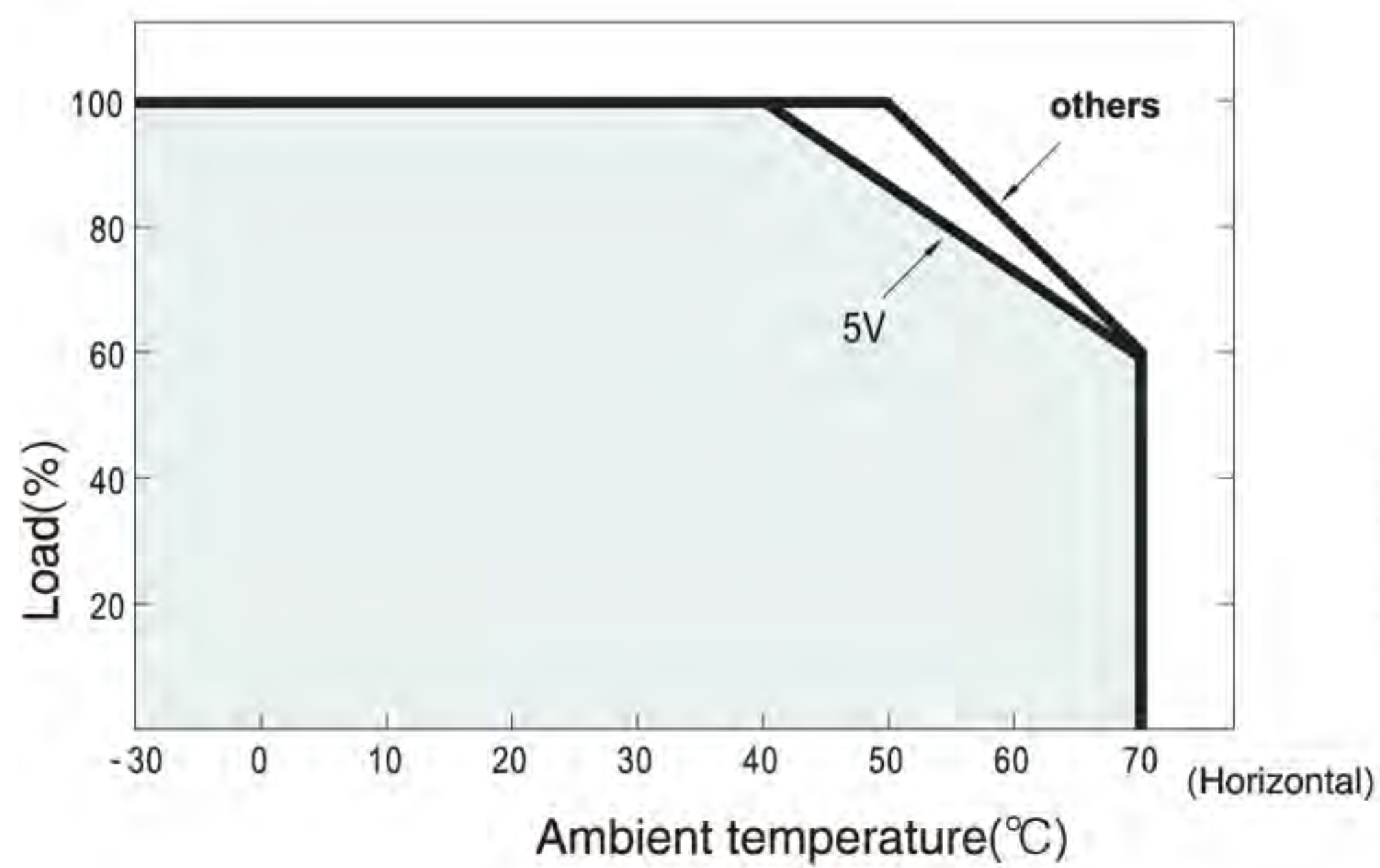


PWM Frequency: 65KHz

Block diagram:-



Derating Curve:-



Static Characteristic:-

