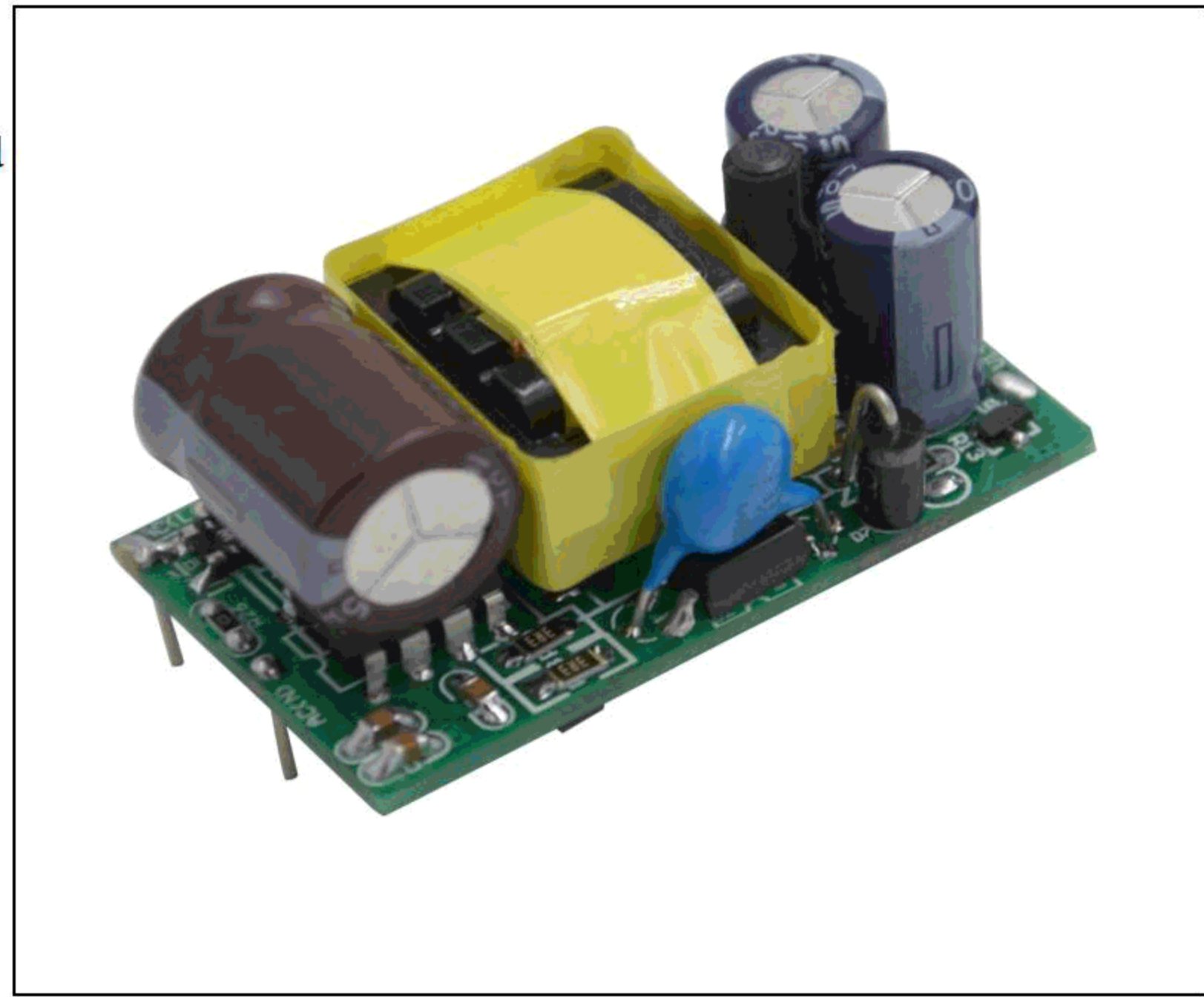


SM-PLA10A Product Specification

**Product features:**

- 1. The product is easy to install and can be installed on the main board of the socket. It can be directly plugged and pulled out with plug.
- 2. International Universal input voltage: 85-264V AC or 110-370V DC.
- 3. High efficiency, high power density, low output ripple noise
- 4. Input and output with high isolation, primary insulation withstand voltage 3KV, safety level: B.
- 5. Overcurrent protection, short circuit protection and temperature protection
- 6. Output built-in filter without external filter circuit.
- 7. Industrial grade, super small size, product conforms to CE safety standard design.
- 8. Three years of quality assurance



Item	Condition	Common models of this series we have (we can customize any products with different output voltage and current or other requirements according to customer's requirements)					
		PLA10A-03	PLA10A-05	PLA10A-09	PLA10A-12	PLA10A-15	PLA10A-24

**1、 Input Features**

AC Input(VAC)	85-264					
DC Input(VDC)	110-370					
Frequency Range(Hz)	47-63					
Input Current(mA)	0.5/115VAC 0.25/230VAC					
Surge current(A)	Cold Boot: 10A/230VAC					
Efficiency(TYP.)	68%	77%	77%	78%	78%	81%
Stand-by power consumption(mW)	≤100mW/220VAC					

**2、 Output Features**

Output Voltage(VDC)	3.3V	5V	9V	12V	15V	24V
Output voltage accuracy	±1%					
Rated current(ADC)	3A	2A	1.1A	0.85A	0.66A	0.4A
Rated power (W)	10W	10W	10W	10W	10W	10W
Ripple&Noise (mv-p)	Rated input voltage, 20MHz bandwidth	≤100mV				
Linear adjustment rate	Full-load	±1%				
Load regulation	10-100% Load	±3%				
Startup and rise time	Full-load	2000ms, 30ms/115VAC 1000ms, 30ms/230VAC				
Retention time(ms)	Full-load	16ms/115VAC 50ms/230VAC				
Overload protection	Rated input voltage	115%-150% of the rated output power(Overload Protection)				
		Protection mode: hiccup mode, auto-response after removal of abnormal loading condition				
Short-circuit protection	Rated input voltage	Automatic recovery after long-term short circuit				
		≥1.1 Times I <sub>o</sub>				
Over-current protection	Rated input voltage					
		≥1.1 Times I <sub>o</sub>				
Start delay time(ms)	Vin: 230VAC	500ms				
Power-off protection time (ms)		20ms				

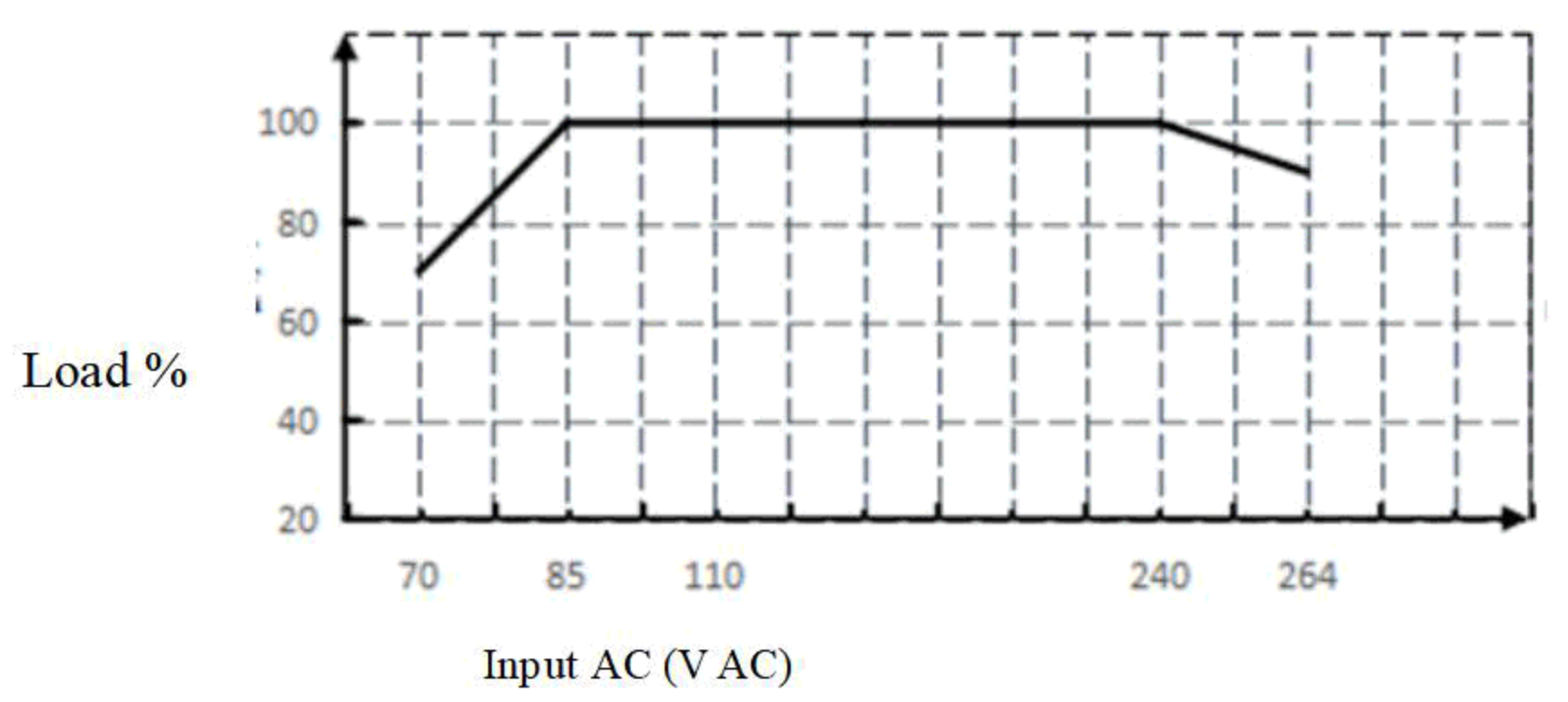
### 3、General Features

Working temperature(°C)	/	-25-70
Working humidity (RH)	/	20-90%, non-condensing
Temperature drift coefficient	/	±0.02%/°C
Storage temperature and humidity		-40~+85°C 10-95%RH
Switching frequency (KHz)		20-65
Isolation voltage (VAC)	Input-to-output, test lasted 60s, ≤5mA	3000
Insulation resistance(MΩ)	Input-to-output, 500VDC	100
Leakage current(mA)	500VDC	Input-to-output ≤1mA/RMS
MTBF	@25°C	215000h
Safety level	/	Adaptation: CLASS B
Vibration resistance	/	10—500Hz 2G 10 minutes/cycle. 60 minutes each for X, Y and Z.
Electro-magnetic compatibility	/	Adaptation: EN55022(CISPR22) Class B EN61000-3-2,-3

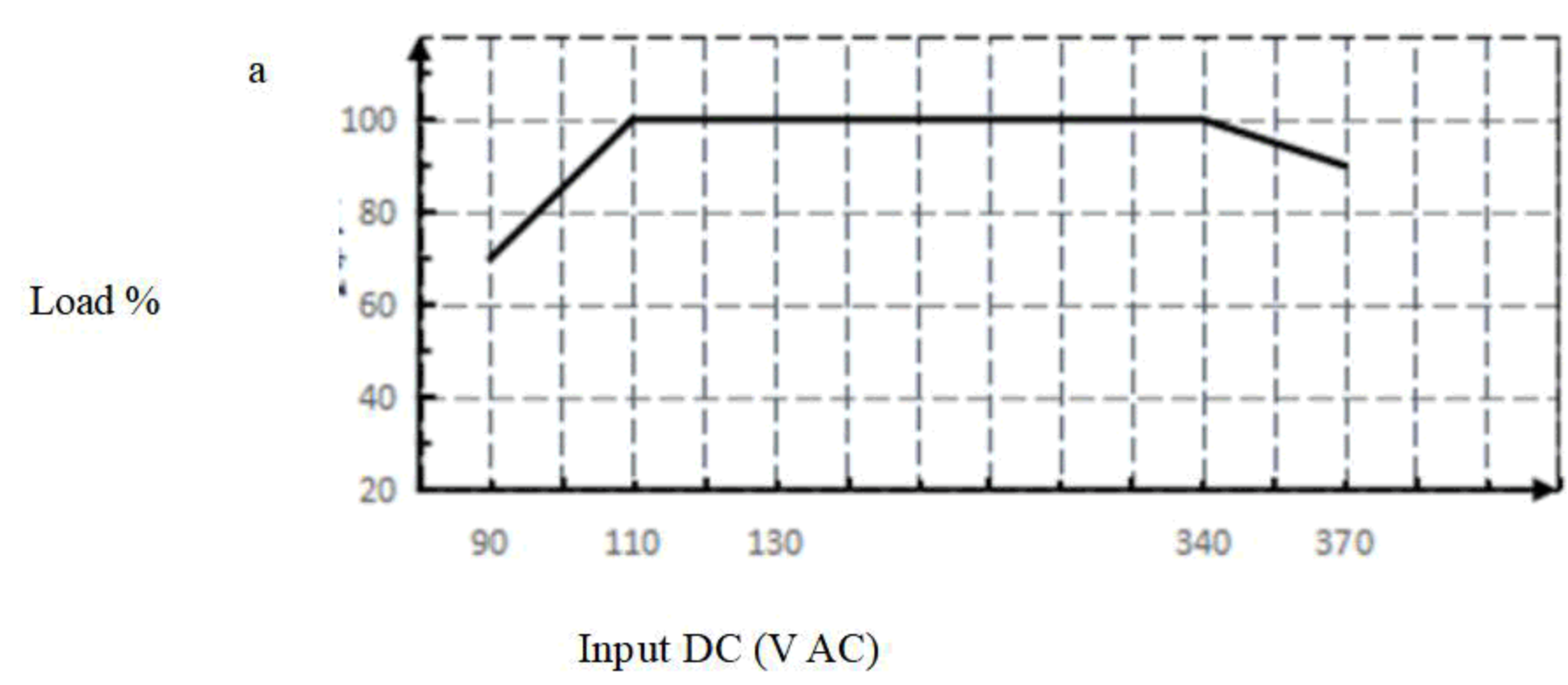
- Remarks**
1. Except for special instructions, the parameters of this specification are measured at 230VAC input, rated load and 25°C.
  2. Measurement of ripple and noise: Using a 12” twisted pair, and the terminal has two capacitors, 0.1uF and 10uF in parallel. Measured at 20MHz bandwidth.
  3. Accuracy: Including errors, linear adjustment rate and load adjustment rate.
  4. The power supply should be regarded as part of the components in the system, and electro-magnetic compatibility related confirmation should be carried out with the terminal equipment.
  5. Reduced output is required under low input voltage. Please refer to the reduction graph.

### >Curves Chart For Product Features

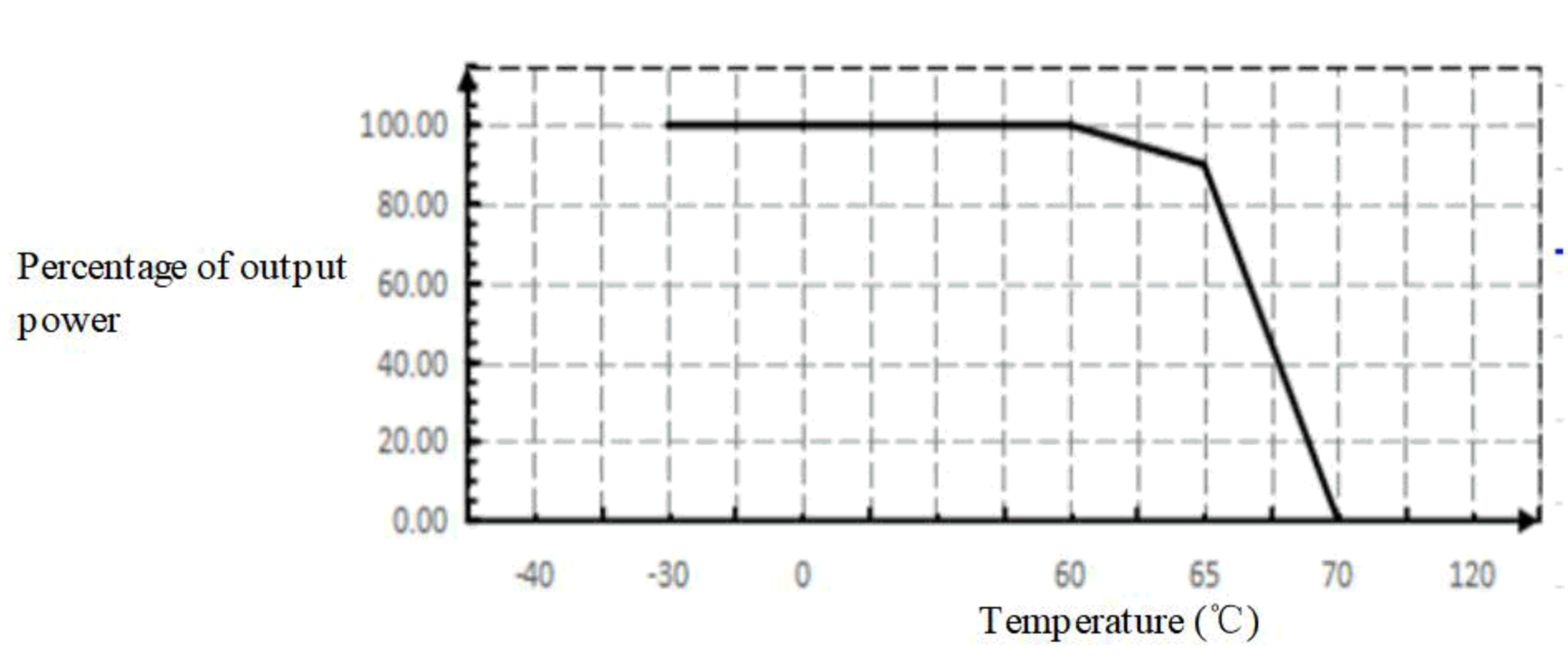
Input (AC) Output load curves of different Ranges



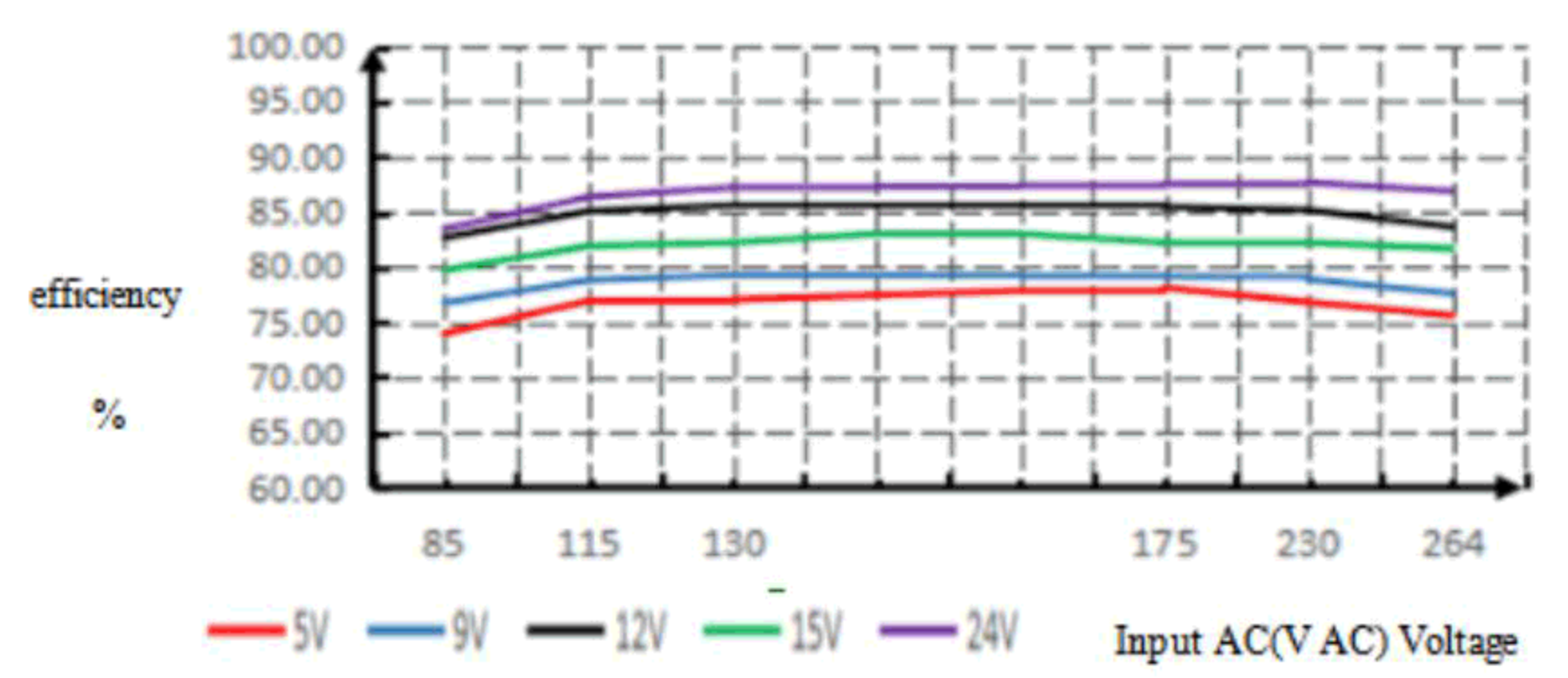
Input (DC) Output load curves of different Ranges



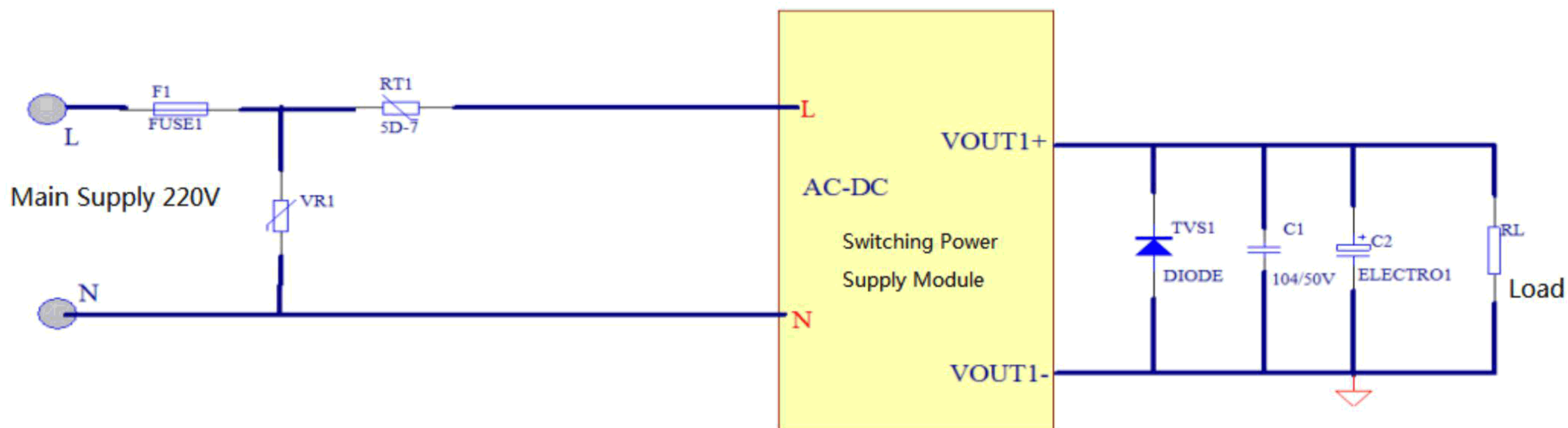
Working Environment Temperature and Load Features



Input / output Various Voltage Efficiency Curves



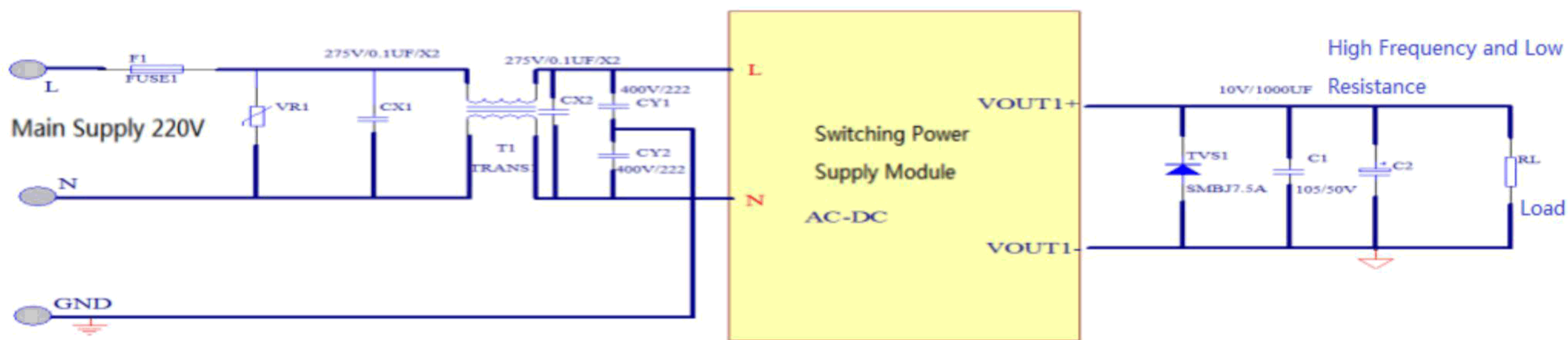
>Typical application circuit



>Reference of Peripheral Component Parameters:

Model	F1 Connection	TR1	VR1	TVS1	C2	C1
SM-PLA10A-03	250V/1A Slow Break	5D-7	7D561	SMBJ7.0A	10V/470UF	1uF/105 Patch
SM-PLA10A-05						
SM-PLA10A-09						
SM-PLA10A-12						
SM-PLA10A-15						
SM-PLA10A-24						

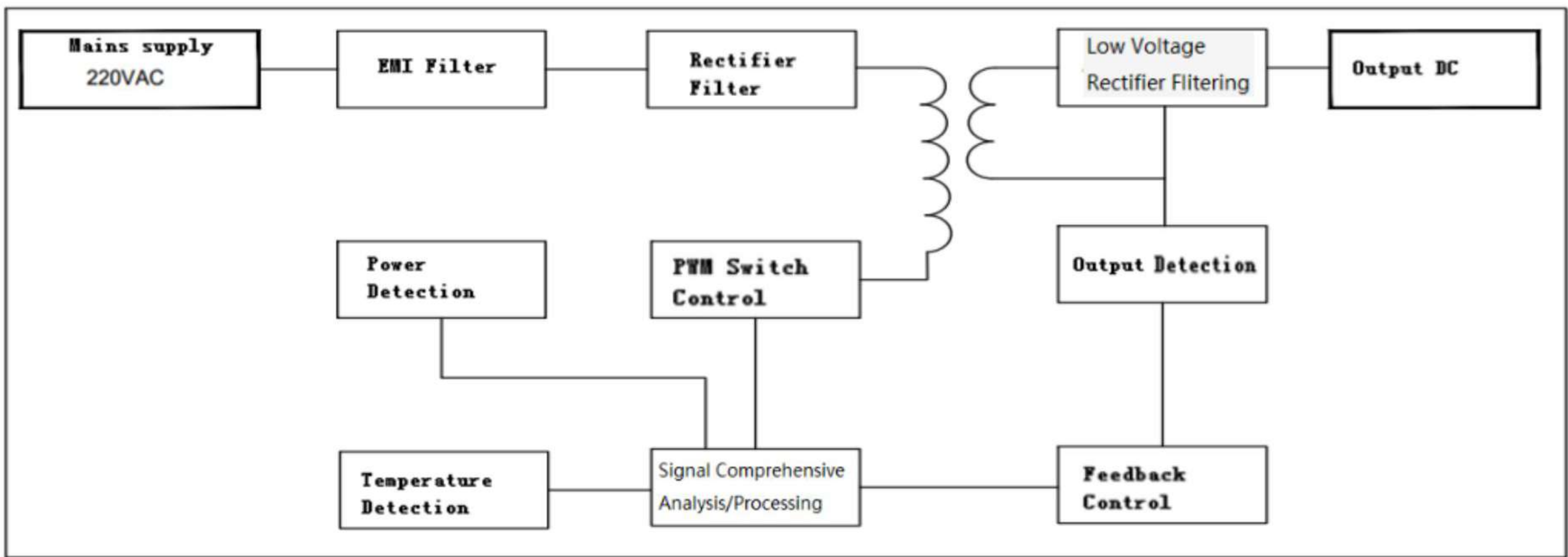
>EMC Circuit Recommendation



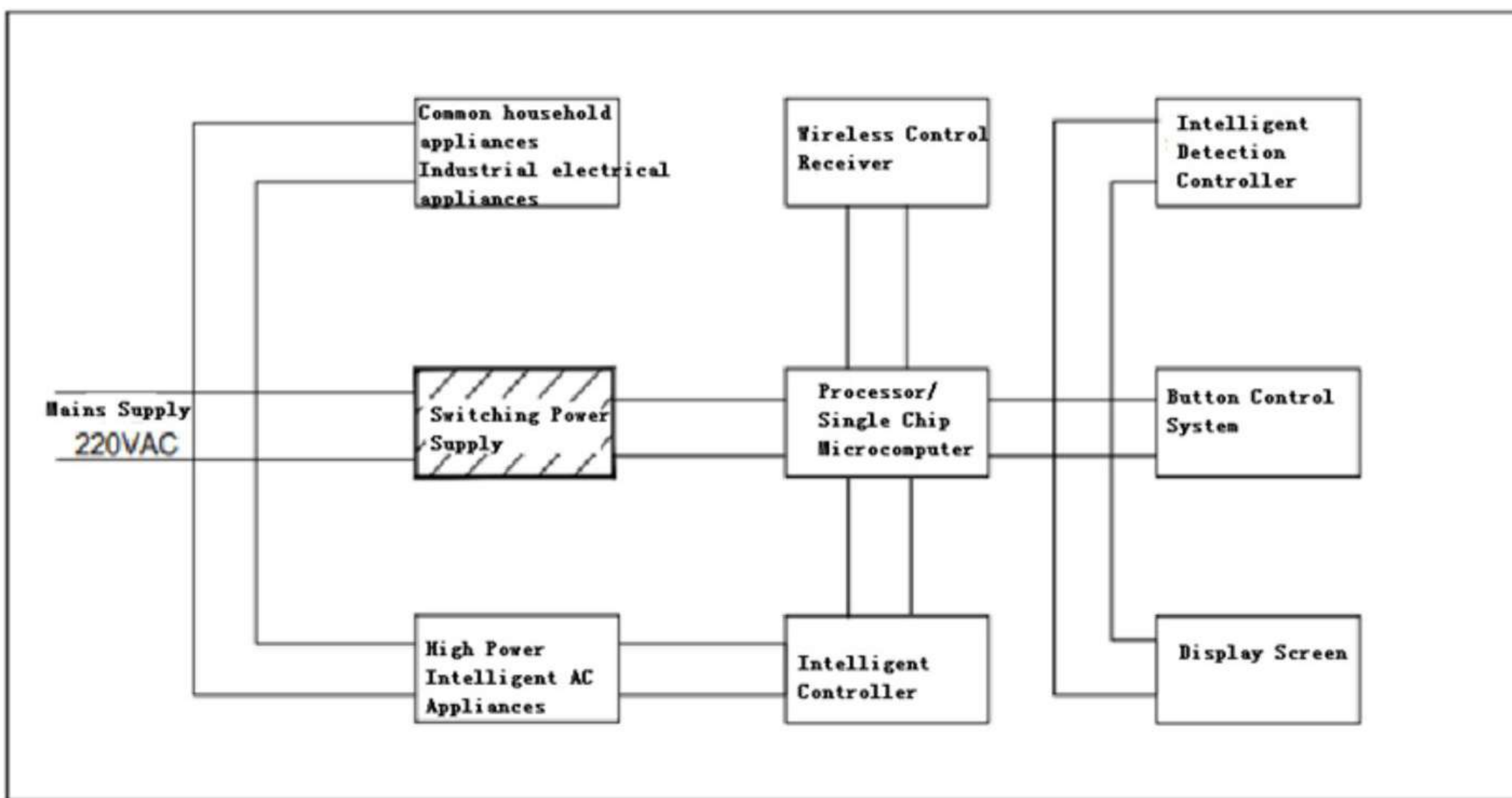
>Reference of Peripheral Component Parameters:

Model	F1 Connection	CX1	CX2	T1	TR1	CY1	CY2	VR1	TVS1	C2	C1
SM-PLA10A-03	250V/1A Slow Break	0.1UF/275V	0.1UF/275V	UU9.8/40MH	5D-7	222/400V	7D561	7D561	SMBJ7.0A	10V/470UF	1uF/105 patch
SM-PLA10A-05											
SM-PLA10A-09											
SM-PLA10A-12											
SM-PLA10A-15											
SM-PLA10A-24											

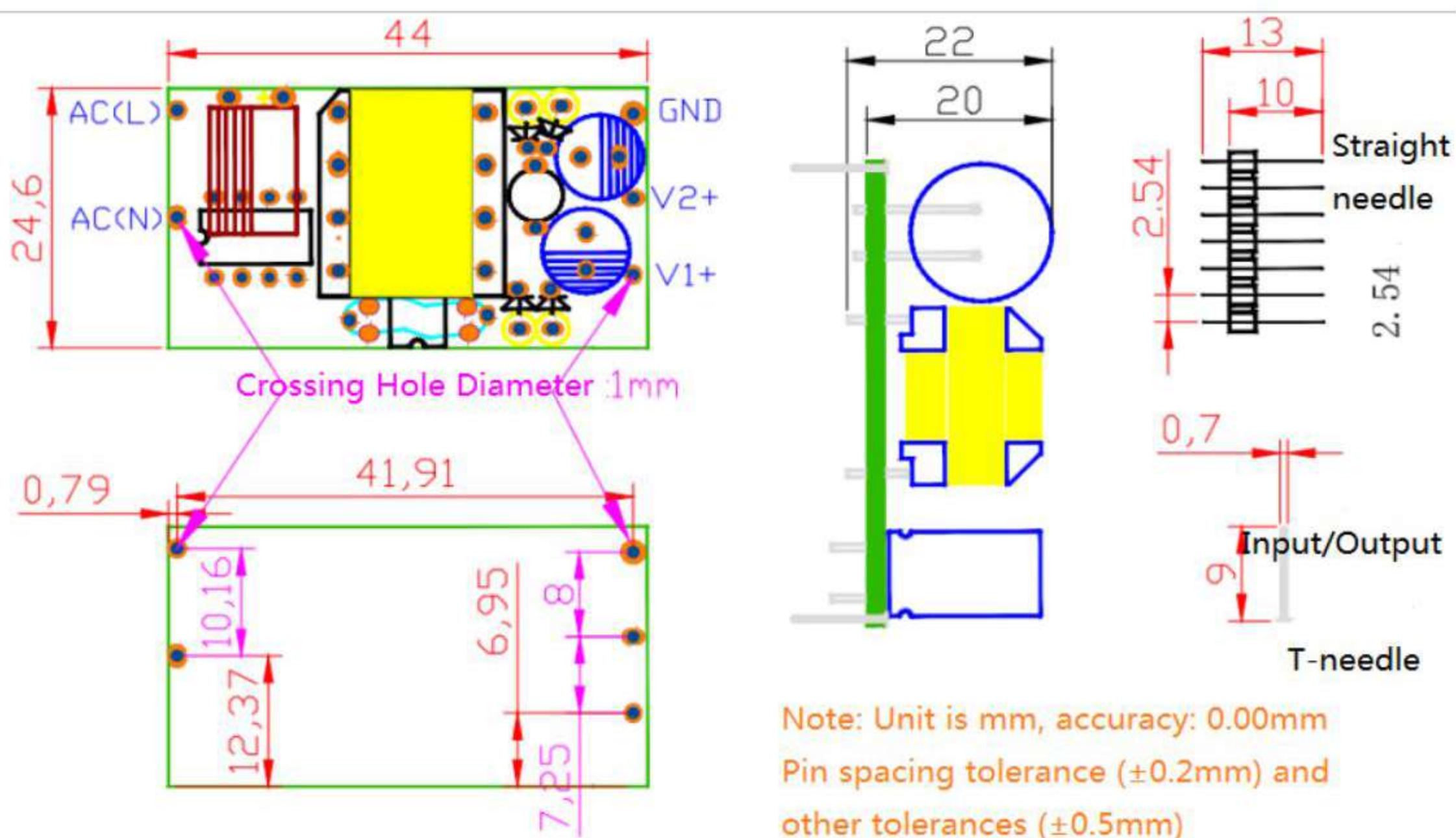
## >Schematic diagram of power supply



## >Application schematic diagram



## >Application schematic diagram



### Product selection and Notes:

1. Please refer to the specifications in detail for selection and use, otherwise the reliability of power supply will not be guaranteed.
2. All parameters of this specification are measured according to the internal standards of our company.
3. It is suggested that the load power of the power supply should not exceed 80% of the rated power of the power supply.
4. With multi-output power supply, each output circuit must be loaded and used at the same time according to the corresponding ratio.
5. Our company can provide customized products.
6. We reserve the right to change specifications without prior notice.
7. For more product information, please contact us or log on our website: <https://www.sanmim.com>

## >Contact Information

Guangzhou Sanmim Electronic Technology Co., Ltd.

Tel: 020-37720376 Phone: 18102207867

E-mail: [sales@sanmim.com](mailto:sales@sanmim.com)

Address: Building D, No. 8 Microthink Tank Industrial Park, Xianke Road No. 1, Xiutang Village, Huadong Town, Huadu District, Guangzhou 510890