



RoHS

Key features

- Input voltage: 305 Vac,50/60Hz
- size only 30*20*15mm
- Low ripple and noise
- Output overload and short circuit protection
- Industrial design
- Lower power, RoHS , no load loss < 0.1W
- 100% test and work
- 3 Years product warranty

DP10 series --- a super small size modular power supply offered by Zhongyiguang. The output power of this series module power supply is 10W, with extremely low no-load loss (< 0.1W), low leakage current, which is only 0.1mA, small size (32*20*15mm) and isolation voltage up to 3kv, etc. The product is safe and reliable, which has a good EMC. This series of products are widely used in industrial, office and civil industries. If applied to a relatively harsh environment electromagnetic compatibility, it must be referenced the application circuit.

Electrical Specifications

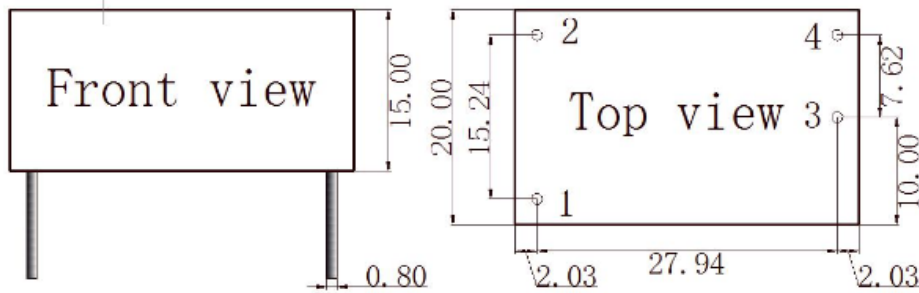
Model	Input voltage	Output Power(W)	Output voltage(V)	Output current(A)	Ripple(mv)	Efficiency (%)
DP10-220S03	85~ 300VAC 100 ~ 400VDC	6.6	3.3	2.0	100	66
DP10-220S05		10	5.0	2.0	100	76
DP10-220S09		10	9.0	1.05	100	80
DP10-220S12		10.8	12	0.9	100	81
DP10-220S15		10	15	0.66	100	82
DP10-220S24		10	24	0.42	100	83

General Features

Output	Voltage Accuracy	±2.0%
	Line regulation	±1.0%
	Load regulation	±1.0%
	Setup rise time(TYP)	100ms/230VAC 200ms/115VAC at full load
	Output hold-up time(TYP)	40ms/230VAC 15ms/115VAC at full load
Input	Input voltage range	85~ 300VAC 100 ~ 400VDC (Note: details in the application circuit)
	Input frequency	47 ~ 440Hz
	Input current(TYP)	23m A / 230VAC (Note: details in the application circuit)
	Inrush current(TYP)	The circuit (NTC) is limited to below 30A
	Recommended value of external fuse	T1A/250V
	Leakage current(TYP)	< 0.1mA at 265VAC/50Hz
Protection	Over-voltage, over-current, short circuit protection, self recovery after troubleshooting.	
Work environment	Operating temperature	-40 ~ +85 °C (According to derating curve of output load)
	Humidity	85% .RH max
	Storage temperature	-40 ~ +85, 10 ~ 95% RH
	Temperature coefficient	0.03%/ (0~ 50°C)
	Vibration coefficient	10~500Hz,2G10min./1cycle, 60min.each along X,Y,Z axes

Safety and EMC (Note:3)	Safety standards	EN60950,EN60601,UL60950
	I/O-isolation voltage	I/P-O/P:3000VAC
	Isolation resistance	I/P-O/P>100M Ohms/500VDC 25°C 70% RH
	EMI / RFI conducted	EN55011, EN55022 (CISPR22) CLASS B (Note: details in the application circuit)
	ESD	IEC/EN 61000-4-2 level 4 8kV/15kV (Note: details in the application circuit)
	RF	IEC/EN 61000-4-3 (Note: details in the application circuit)
	EFT	IEC/EN 61000-4-4 level 4 4kV (Note: details in the application circuit)
	Surge	IEC/EN 61000-4-5 level 4 2kV
Others	MTBF	200K hrs min. MIL-HDBK-217F(25)
	Size	32*20*15mm (L*W*H)
Notes	1. In addition to the special description, the above data are measured at the environment of TA=25°C, humidity less than 75%, input nominal voltage 230Vac and output rated load;	
	2. Ripple and noise are measured by using 300mm twisted pair and referring to the connection of the manual application circuit in the case of bandwidth 20MHz.	
	3. The power supply is considered as a component in the system, and it is necessary to confirm the EMC combining the terminal equipment.	

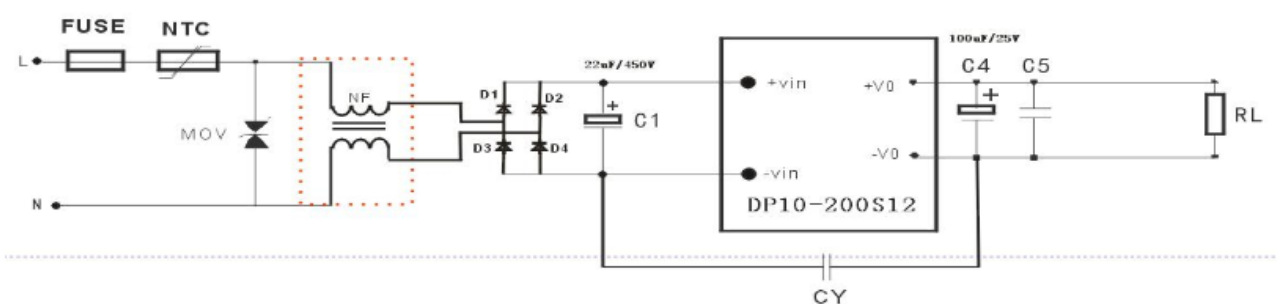
Dimension



DP10-220SXX Pin function	
PIN	SINGLE
1	-Vin
2	+Vin
3	-Vo
4	+Vo

Note: the size of unit: mm;
 the terminal section size: 0.80mm;
 unlabeled tolerance: ± 0.5mm.
 terminal length: more than 4.0mm;
 terminal tolerance: ± 0.1mm;

Typical application drawing



Note :

- The output filter capacitor C4 is the electrolytic capacitor. Electrolytic capacitors with high frequency and low resistance are recommended. Capacitance and flow current refer to the technical specifications provided by the manufacturer. C5 is used to remove high frequency noise.
- The EMC filter is meet the higher EMC requirements in the dashed frame. It can be omitted when it was used in general places.