



Key features

- Universal input :85-264vac 50/60 Hz
- EMC reaches level 4 (EN61000-6-2, grade A heavy industry standard)
- Low ripple (30mV) and noise
- Output overload and short circuit protection
- High efficiency, high power density, minimum size
- Lower power, RoHS , no-load loss < 0.1w
- 100% test and work
- 3 years product warranty



HP10 series is a high stability、super small size modular switching power supply offered by Zhongyiguang. It features minute extension 、high reliability、high isolation voltage 、higher cost performance etc. And it is mainly used in heavy industry environment instruments and other related equipment , such as applied to a relatively harsh environment electromagnetic compatibility must refer to the application circuit.

Electrical specifications

Model	Output voltage(V)	Output current(A)	Output power(W)	Efficiency(%)	Ripple(mv)
HP10-S03	3.3	2	3.3	68	50
HP10-S05	5	2	10	77	50
HP10-S09	9	1.05	10	79	50
HP10-S12	12	0.83	10	82	50
HP10-S15	15	0.66	10	83	50
HP10-S24	24	0.45	10.8	84	50

General features

Output	Output voltage accuracy	±2.0%	
	Source effect	±1.0%	
	Load effect	±1.0%	
	Starting time(TYP)	20ms/230VAC	50ms/115VAC at full load
	Output hold time(TYP)	40ms/230VAC	15ms/115VAC at full load



Input	Input voltage range	85 ~ 264VAC	80 ~ 370VDC
	Input frequency	47 ~ 440Hz	
	Input current (TYP)	200mA / 115VAC	120mA / 230VAC
	Inrush current (TYP)	cold boot 20 A / 115 VAC	40 A / 230 VAC
	Recommended values for External Fuses	T2A / 250Vac (disconnected slowly)	
	Leakage current(TYP)	< 0.3mA at 230VAC/50Hz	
Protection	Over-current and short circuit protection, automatic recovery after troubleshooting		
Work environment	Operating Temperature	-40 ~ +70 °C (≥50°C, according to the 0.2W/°C derating)	
	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 Standard	Conform to UL1012, EN60950, UL60950	
	I/O-Isolation voltage	I/P-O/P:3.0KVAC	I/P-FG:1.5KVAC O/P-FG:0.5KVAC
	Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: > 100M Ohms/500VDC 25°C 70% RH	
	EMI / RFI conducted	Conform to EN55011, EN55022 (CISPR22)	
	ESD	IEC/EN 61000-4-2 level 4 8kV/15kV (Note: See the application circuit for details)	
	RF	IEC/EN 61000-4-3 (Note: See the application circuit for details)	
	EFT	IEC/EN 61000-4-4 level 4 4kV (Note: See the application circuit for details)	
	Surge	IEC/EN 61000-4-5 level 4 2kV/4kV (Note: See the application circuit for details)	
Others	MTBF	200K hrs min.	MIL-HDBK-217F(25)
	Dimensions	48.5*36*20.5mm (L*W*H)	
	Weight	50g/piece, 6.5kg/case	
	Pack	112 piece	
	The size of the packing box	360*300*250mm	
Notes	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 of ambient temperature.		
	2. Ripple & noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uf & 100uf electrolytic capacitor.		
	3. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives		

Dimension