



Zhitao Group
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Industria Din railpower supply

Product Specifications

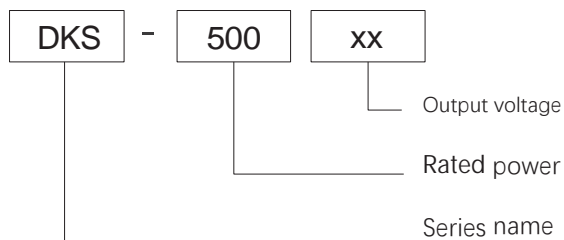
DKS-500

- Product Category: 500W Single Output Digital Adjustable Power Supply
- Version No.: ZTAO3.0
- Release date: May 1st, 2025

product overview

DKS-500 is a single display adjustable voltage regulator switching power supply, AC input range 100 ~ 120 / 200 ~ 240V (switch replacement) for global use, the output voltage including 12V / 36V / 48V / 60V / 80V / 110V / 220V, etc., temperature-controlled fan heat dissipation, DC output voltage throughout the 0V adjustable output voltage can be customised analogue signal 0 ~ 5V or 0 ~ 10V control, the product is suitable for motor speed control, lighting dimming and so on. The output voltage can be customised to analogue signal 0~5V or 0~10V control, the product is suitable for motor speed control, light dimming and so on.

Model Encoding



product characteristics

- AC input range 100~120/200~240V (switch replacement)
- Protection type:
 - short circuit/overload/over temperature
 - fan cooling
- Power on LED indicator
- 100% full load burn-in test
- 3-year warranty

areas of application

Industrial control, mechanical and electrical, electronic instruments, industrial automation, electronic equipment, UV curing equipment, semiconductor equipment, etc. (except information technology equipment)



RoHS

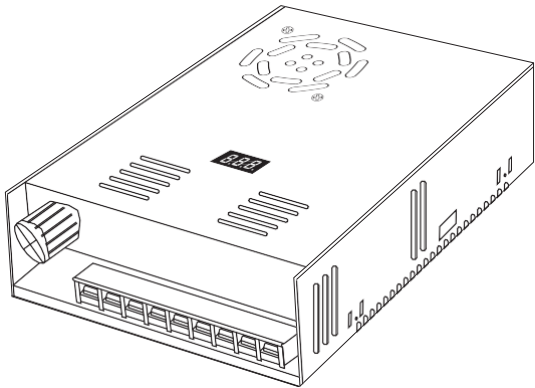
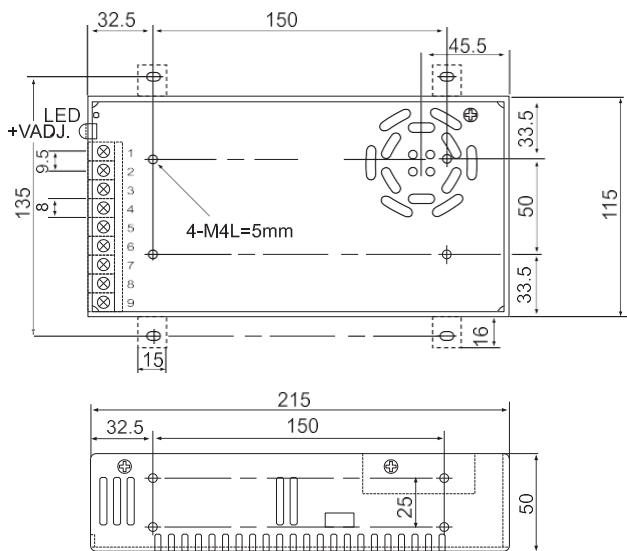


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electrical specifications

Model		DKS-500-12	DKS-500-24	DKS-500-36	DKS-500-48	DKS-500-60	DKS-500-80	DKS-500-110	DKS-500-220
Output	DC output voltage	12V	24V	36V	48V	60V	80V	110V	220V
	Rated current	40A	20A	13.8A	10A	8.3A	6A	4.5A	2.2A
	Current range	0~40A	0~20A	0~13.8A	0~10A	0~8.3A	0~6A	0~4.5A	0~2.2A
	Rated power	480W	480W	496.8W	480W	498W	480W	495W	484W
	Ripple & Noise (Max)	200mVp-p	240mVp-p	320mVp-p	360mVp-p	500mVp-p	500mVp-p	850mVp-p	1000mVp-p
	Output Voltage Adjustment	0~15V	0~27V	0~38V	0~52V	0~79.2V	0~79.2V	0~121V	0~230V
	voltage accuracy	±1%	±1%	±1%	±1%	±1%	±1%	±1%	±1%
	Linear adjustment rate	±1%	±1%	±1%	±1%	±1%	±1%	±1%	±1%
	Load Adjustment Ratio	±1%	±1%	±1%	±1%	±1%	±1%	±1%	±1%
	start-up & rise time	1800ms,100ms/115VAC 1500ms,100ms/230VAC (at full load)							
Input	Input Voltage	100~132/200~264V (switch replacement) 280~370VDC							
	Input frequency	50~60HZ							
	Efficiency	85%	88%	89%	89%	90%	90%	91%	92%
	Input current	8.6A/115VAC 4.3A/230VAC							
	Leakage current	< 3.0mA/240VAC							
protection	short-circuit protected	Protection Mode: +VO drops to undervoltage point, and automatically recovers when abnormal conditions are removed							
	Over temperature	Output voltage is switched off and restored after temperature drop or reboot							
Function	Customisable analogue signals	0~5V/0~10V(Voltage)							
	Fan On/Off Control (Typ.)	TH3 ≥ 50 °C fan on, ≤ 40 °C fan off							
environmental properties	Operating temperature	-20°C ~ +60°C							
	Operating humidity	20~90%RH No condensation							
	Storage temperature/humidity	-40~+80°C 10~95%RH, no condensation							
	Vibration-resistant	10~500HZ, 5G 10 min/cycle, X, Y, Z 60 min each							
Security	pressure resistance	Input to Output :1.5KVAC; Input to Ground :1.5KVAC; Output to Ground :500VAC							
	Insulation impedance	Input to Output, Input to Ground, Output to Ground :100 Ohms/500VDC/25°C /70%RH							
	Product dimensions	215*115*50mm (L*W*H)							
Others	Packaging	1.3kg/pcs							
	Remarks	1. All parameters are measured at 230VAC input, rated load and 25°C when not otherwise specified. 2. Ripple and noise voltages were measured on a 20MHz bandwidth oscilloscope with 0.1μ and 47μ capacitors at the end of a 12-inch twisted pair cable, measured at 20MHZ bandwidth. 3. Accuracy: Includes setting error, linear adjustment ratio and load adjustment ratio. 4. Linear Adjustment Ratio Measurement Method: Test from low voltage to high voltage at rated load 5. Load Adjustment Ratio Measurement Method: From 0% to 100% of rated load 6. Start-up time is measured at cold start, fast and frequent switching on and off may increase the start-up time. 7. When operating at altitudes higher than 2000 metres (6500ft): the operating environment needs to be reduced by 5°C / 1000 metres							

Appearance and Installation Dimensions (mm)



Terminal Pin No. Assignment

Pin No	Assignment
9	AC/N(DC+)
8	AC/L(DC-)
7	FG \oplus
4,5,6	DC OUTPUT -V
3,2,1	DC OUTPUT +V

Pinout	Function	
L	AC LINE	Screw:M4*10 Torque:22Kgf.cn(2.2N.m)
N	AC NETURAL	
\oplus	EARTH	
-V	DC output -	Screw:M4*10 Torque:22Kgf.cn(2.2N.m)
-V	DC output -	
-V	DC output -	
+V	DC output +	
+V	DC output +	
+V	DC output +	

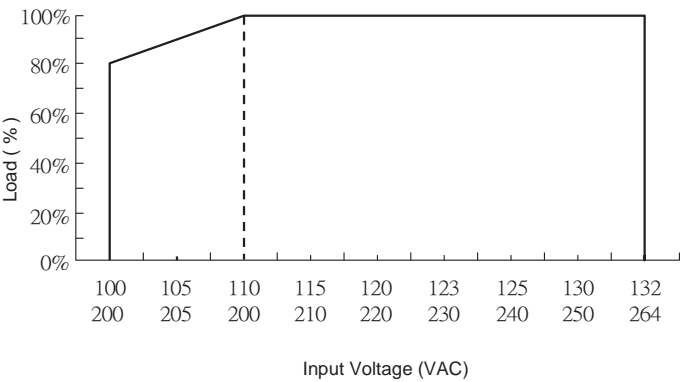
8-M4 Customer system mounting holes
mounting screws: M4
Installation torque: 8Kgf.cn
(0.8N.m) screws into the housing is not
more than 3mm

Remarks:

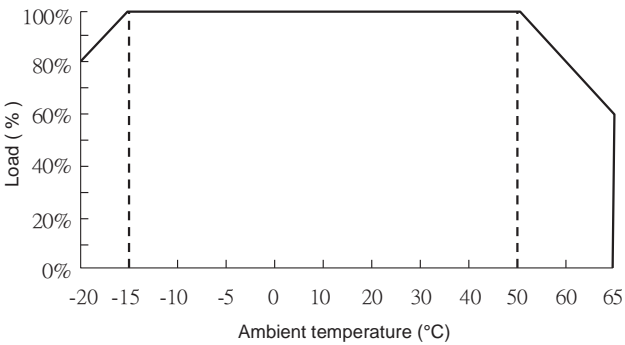
Unit: mm [inch]; unlabelled tolerance ± 0.5 [± 0.020].

characteristic curve

Input Voltage VS Output Load



Ambient Temperature VS Output Load



Note:

- 1. If you need more detailed test data, please contact our technical support to get the application notes of the corresponding products.
- 2. This product is suitable for use in a natural air convection environment, if used in a closed environment, please contact our technical support staff.