Switch Mode Power Supply

Himel

What is Switch Mode Power Supply?

Switch mode power supply, also known as switching power, is a type of power supply using power electronics technology to control the time ratio of opening and closing.

Features

- 30mm ultra-thin enclosure design
- High frequency PWM control technology & fast response
- Easy to install and light weight
- High power MOSFET driving; stable and reliable operation; strong overload ability
- Full range of AC input voltage (90□264VAC); high efficiency and small output ripple
- 100% full load aging test can be passed for all products
- Low power loss design; less heat consumption; no load power consumption is only 0.2-1.0W
- Complete protection functions: overvoltage protection, overload protection, over-temperature protection, short circuit protection, etc.

What is Switch Mode Power Supply?

Application

Our product can be widely used in the following fields:

- ◇ Industrial control system
- ◇ Industrial automation machinery
- ◇ Mechanical and electrical equipment
- ◇ Electronic instruments
- ◇ Household appliances

In those fields, our product is used as the power supply for LED screen, electronic testing equipment, control equipment, radio and television, computer network, medical apparatus and instruments, intelligent monitoring, and many more.

Technical Parameters

Item		Technical Parameter						
Rated power		35W	50W	75W	100W	150W	200W	350W
AC Input voltage		100~264 V (actual input voltage range: 90~264 V)					85~132 V / 176~264 V (can be switched)	
AC Input frequency		47~63 Hz						
Output stability		≤1%						
Load regulation rate		≤1% (standard)						
Micro regulation range of output voltage		±10% (rated output voltage)						
Ripple and noise		≤1% peak value (100mVp-p standard)						
Overvoltage protection		110%~140% (protection mode: output is tripped, and it will be recovered automatically when the abnormal condition is eliminated)						
Overload protection		110%~150% (protection mode: hiccup mode is activated, and it will be recovered automatically when the abnormal condition is eliminated)						
Over-temperature protection		--					100±5℃	
Output loop		Single						
Cooling method		Natural wind cooling (＜ 200W)						
Working environment		Working temperature: -10℃ +60℃ Humidity: 20%~90%RH						
Outline dimension	mm	99×82×30		99×97×30	129×97×30	159×97×30	215×115×30	
Installation dimension		Figure 1		Figure 2	Figure 3	Figure 4	Figure 5	Figure 6
Weight	kg	0.23	0.23	0.25	0.34	0.48	0.66	0.76
Safety & EMC	Safety standard	UL60950-1, TUV EN60950-1, EN60335-1, EN61558-1/-2-16						
	Withstand voltage	Input versus output: 4kVAC Input versus grounding: 2kVAV Output versus grounding: 1.25kAC/1min						
	Insulation resistance	Input versus output,input versus grounding, output versus grounding/500VDC/25℃ /70%RH						
	EMC emission	EN55032(CISPR32) Class B, EN55014, EN61000-3-2						
	EMC immunity	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61000-6-2 (EN50082-2)						

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Construction of references Principle

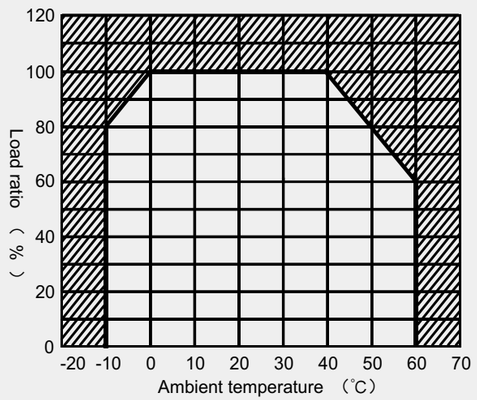
Product Name	Rated Power	Output Voltage
HDKUS	50	12
0230: 230V	35: 35W 50: 50W ... 350: 350W	05: 5V 12: 12V ... 48: 48V

Order Information for HDKUS

Model	Power	Input	DC Output (A)						Function
	W	Remark 1	5V	12V	15V	24V	36V	48V	Remark 2
HDKUS-35	35	F	7	3	2.4	1.5	1	0.8	ABK
HDKUS-50	50	F	10	4.2	3.4	2.2	1.45	1.1	ABK
HDKUS-75	75	F	14	6	5	3.2	2.1	1.6	ABK
HDKUS-100	100	F	18	8.5	7	4.5	2.8	2.3	ABK
HDKUS-150	150	F/S	22	12.5	10	6.5	4.3	3.3	ABK
HDKUS-200	200	S	40	17	14	8.8	5.9	4.4	ABCK
HDKUS-350	350	S	60	29	23.2	14.6	9.7	7.3	ABCDK

Remark 1: selection method for 85-132/170-264VAC: F: full range; S: switching selection
Remark 2: function A: overload (overcurrent) short circuit protection; B: output overvoltage protection;
C: over-temperature protection; D: automatic switch control of cooling fan (prolong service life); K: output LED display

Derating Curve



Note: working temperature is very important as the load is varying linerly when the temperature is below 0℃ or more than 40℃ .
- The load ratio is reduced by 2% per degree when the working temperature is decreased from 0℃ to -10℃ ;
- The load ratio is reduced by 2% per degree when the working temperature is increased from 40℃ to 60℃ .

Increased resistance to external disturbances helps achieve stable equipment operation.

Application

We Provide AC / DC Power Solutions for a variety of Industrial Applications

Industrial Automation

As the DC power for PLC, touch screen, controller, coil of miniature relay

Electronic Information

As the DC power for switch, touch screen

Security Monitoring

As the DC power for camera, fire module

City Lighting

As he DC power for LED screen, light box, streetlight, billboard

Model and Overall Dimensions

Figure 1: 35W/50W

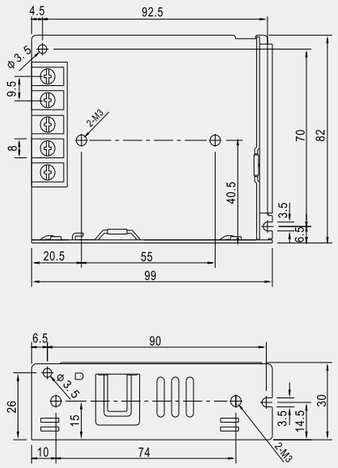


Figure 2: 75W

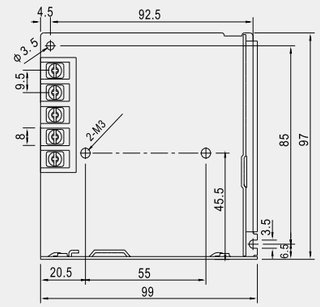


Figure 3: 100W

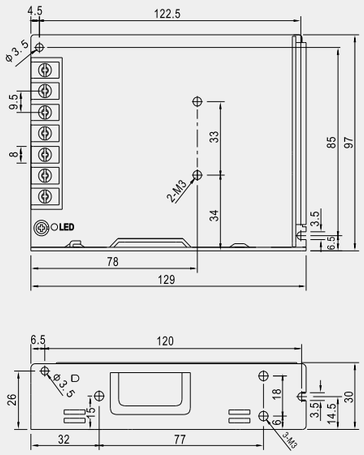
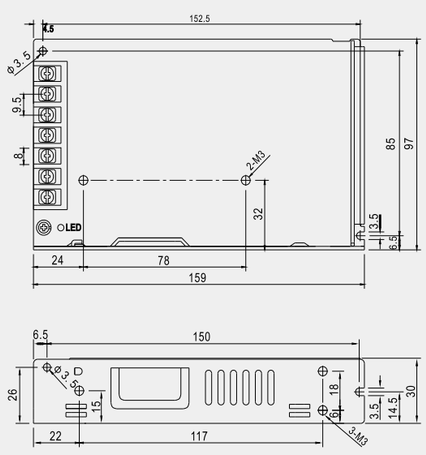


Figure 4: 150W



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Model and Overall Dimensions

Figure 5: 200W

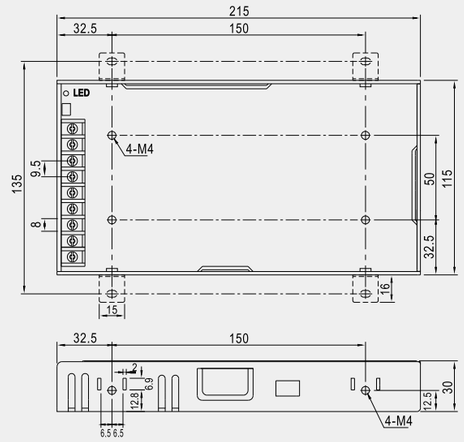
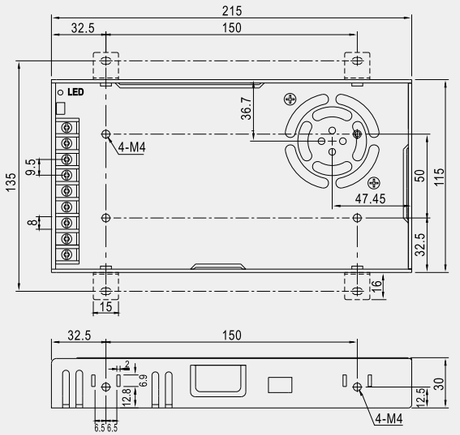


Figure 6: 350W



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