

20W DC/DC Switching Power Supply

HF20W-SD Series



FEATURES

- Full DC input range
- High reliability
- · Japanese brand components for key parts
- Electrolytic capacitors all 105°C
- 100% full load burn-in test
- · Protections: overload/ short circuit
- 5 years limited warranty
- F602 111 x 78 x 36mm

SPECIFICATIONS

DC Input Voltage	12V(10~18), 24V(18~36)			
	48V(36~72), 110V(72~144)VDC			
Line Regulation (full load)	± 0.5%			
Voltage Adjust Range	± 10%			
Output Overload	105~150%, hiccup mode, auto			
Protection	recovery			
Short Circuit	biggup mode, quite recovery			
Protection	hiccup mode, auto recovery			
Rise Time	50ms @full load (typical)			
Mechanical Feature	enclosed			
Dimensions	111 x 78 x 36mm			
	(L x W x H)			
Operating Temperature	-20°C ~+50°C			
Storage Temperature	-20°C ~+85°C			
Operating Humidity	20%~93%RH(non condensing)			
Storage Humidity	20%~95%RH(non condensing)			

MTBF	>100,000 hours
Cooling	convection
Safety Standards	design refer to GB4943, UL60950, EN60950
EMC Standards	design refer to GB9254,
	EN55022 Class A, EN61000
Withstand Voltage	I/P -O/P: 1.5KVAC/1min
	I/P - PE: 1.5KVAC/1min
	O/P-PE: 0.5KVAC/1min
Isolation Resistance	>100MΩ@500VDC
Vibration	10~150Hz, 2G 10min/1cycle,
	30min each along X, Y, Z axes
Connection	5P/8.25mm screw terminal
	block
Packing	0.25kgs, 60pcs/17kgs/0.030CBM per carton

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DC Output	Rated Power	Load Regulation	Voltage Tolerance	Ripple & Noise (max.)	Efficiency
5V 4.0A	20.0W	0.5%	± 2%	80mVp-p	71%
5V 4.0A	20.0W	0.5%	± 2%	80mVp-p	73%
5V 4.0A	20.0W	0.5%	± 2%	80mVp-p	78%
5V 4.0A	20.0W	0.5%	± 2%	80mVp-p	83%
12V 2.0A	24.0W	0.5%	± 1%	120mVp-p	75%
12V 2.0A	24.0W	0.5%	± 1%	120mVp-p	80%
12V 2.0A	24.0W	0.5%	± 1%	120mVp-p	78%
12V 2.0A	24.0W	0.5%	± 1%	120mVp-p	83%
24V 1.0A	24.0W	0.5%	± 1%	150mVp-p	73%
24V 1.0A	24.0W	0.5%	± 1%	150mVp-p	82%
24V 1.0A	24.0W	0.5%	± 1%	150mVp-p	84%
24V 1.0A	24.0W	0.5%	± 1%	150mVp-p	83%
48V 0.5A	24.0W	0.5%	± 1%	150mVp-p	72%
48V 0.5A	24.0W	0.5%	± 1%	150mVp-p	80%
48V 0.5A	24.0W	0.5%	± 1%	150mVp-p	82%
48V 0.5A	24.0W	0.5%	± 1%	150mVp-p	83%
	5V 4.0A 5V 4.0A 5V 4.0A 5V 4.0A 5V 4.0A 12V 2.0A 12V 2.0A 12V 2.0A 24V 1.0A 24V 1.0A 24V 1.0A 24V 1.0A 48V 0.5A 48V 0.5A	DC Output Rated Power 5V 4.0A 20.0W 5V 4.0A 20.0W 5V 4.0A 20.0W 5V 4.0A 20.0W 12V 2.0A 24.0W 12V 2.0A 24.0W 12V 2.0A 24.0W 12V 2.0A 24.0W 24V 1.0A 24.0W	DC Output Power Regulation 5V 4.0A 20.0W 0.5% 5V 4.0A 20.0W 0.5% 5V 4.0A 20.0W 0.5% 5V 4.0A 20.0W 0.5% 12V 2.0A 24.0W 0.5% 12V 2.0A 24.0W 0.5% 12V 2.0A 24.0W 0.5% 24V 1.0A 24.0W 0.5% 48V 0.5A 24.0W 0.5% 48V 0.5A 24.0W 0.5% 48V 0.5A 24.0W 0.5%	DC Output Rated Power Load Regulation Voltage Tolerance 5V 4.0A 20.0W 0.5% ± 2% 12V 2.0A 24.0W 0.5% ± 1% 12V 2.0A 24.0W 0.5% ± 1% 12V 2.0A 24.0W 0.5% ± 1% 24V 1.0A 24.0W 0.5% ± 1%	DC Output Rated Power Load Regulation Voltage Tolerance Ripple & Noise (max.) 5V 4.0A 20.0W 0.5% ± 2% 80mVp-p 12V 2.0A 24.0W 0.5% ± 1% 120mVp-p 12V 2.0A 24.0W 0.5% ± 1% 120mVp-p 12V 2.0A 24.0W 0.5% ± 1% 120mVp-p 12V 2.0A 24.0W 0.5% ± 1% 150mVp-p 24V 1.0A 24.0W 0.5% ± 1% 150mVp-p 48V 0.5A 24.0W 0.5% </td

NOTE

- 1. All parameters are measured at rated input voltage, rated load and 25°C of ambient temperature.
- 2. Line regulation is measured from low line to high line at rated load.
- 3. Load regulation is measured from 0% to 100% of rated load for single output models. For multi-output models, it is



- measured from 20% to 100% of rated load, and other output at 60% rated load.
- 4. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- 5. The power supply is regarded as a component which will be installed into the final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

