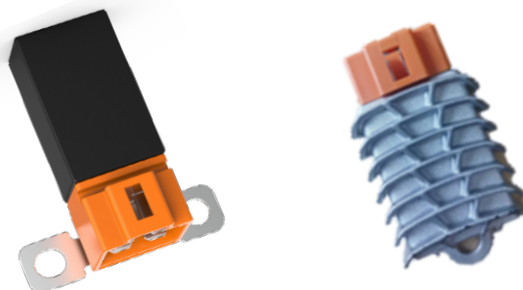


94W DC/DC Dual Output Converter Data Sheet

Green Watt Power’s 94W DC/DC power modules are designed with compact size, low cost, high efficiency, and high reliability. Featured with a fully sealed mechanical structure, this series offers solid, safe power conversions on electric bikes, electric motorcycles, and other DC/DC applications.

Features

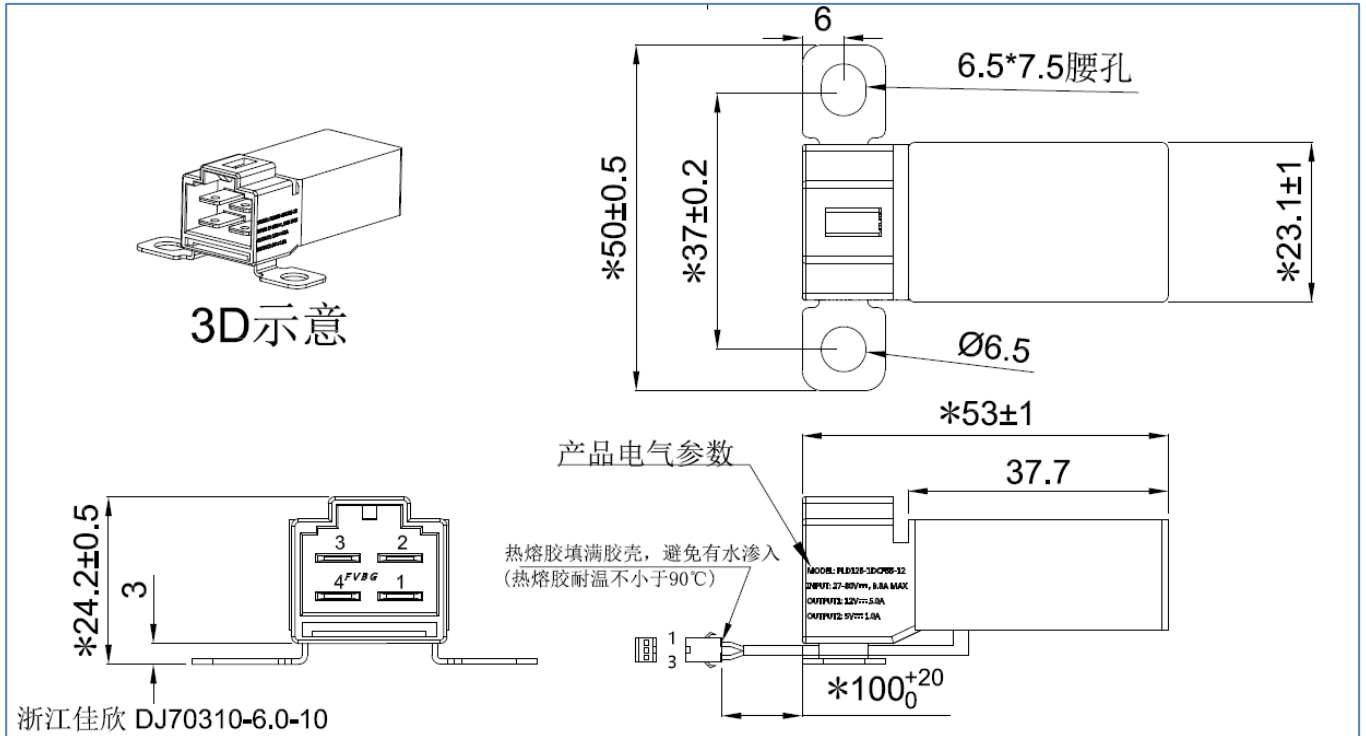
- Wide Input Voltage: 27~80VDC
- Dual Output Voltage: 12VDC and 5VDC
- High Efficiency up to 94.5%
- Baseplate Temperature of 120°C max
- IP67 Ingress Grade (Module only)
- Enable function
- Compact mechanical designs
- No derating
- Non-Isolated



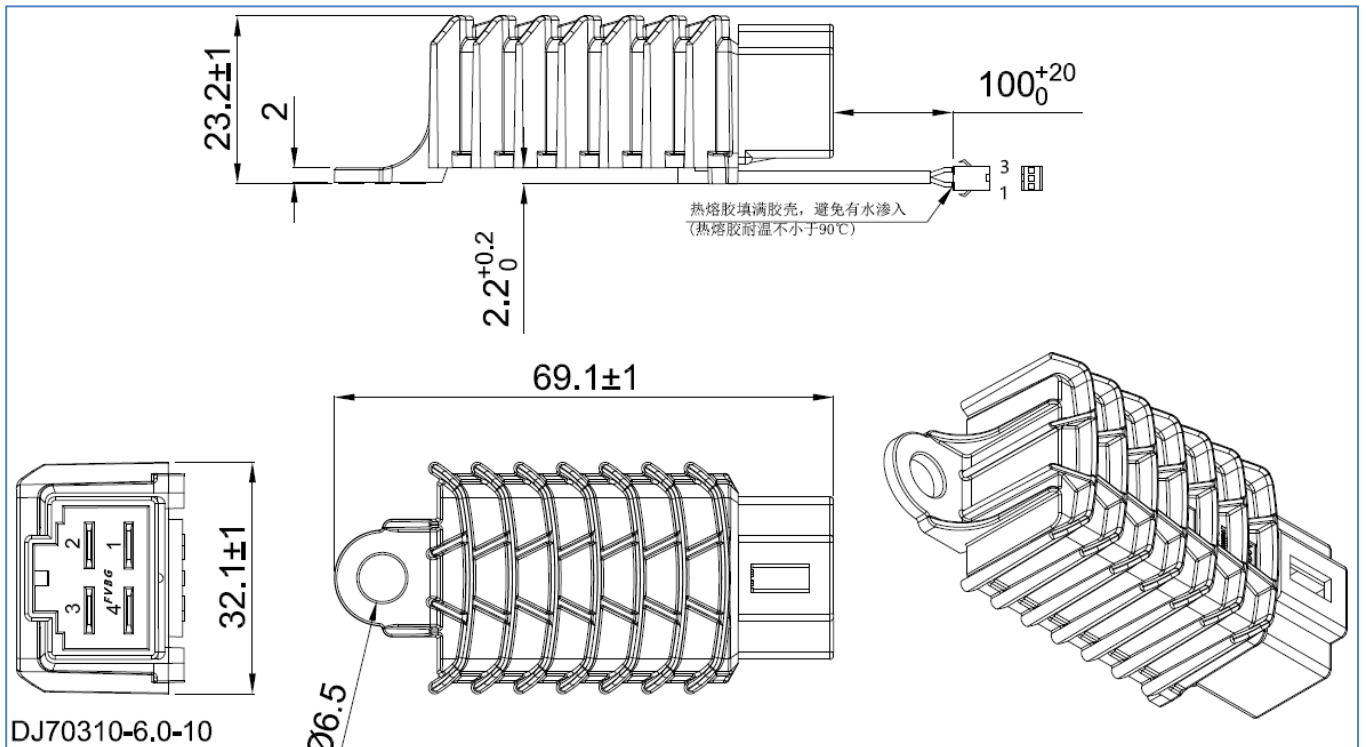
General Specifications		Standard Version	Metal Cover Version
Model (factory number)		EVD-54-94-D12-5-STD (PLD125-1DCF55-12)	EVD-54-94-D12-5-MET (PLD080-EVGY01-12)
Input voltage		27~80VDC	
Max. Input Current		2.7A max. @ 36VDC input & full load	
Efficiency Typical		94.5% @ 36VDC, 93.5% @ 72VDC	
Input/Output Isolation		Non-isolated	
Output Voltage Range (12V/5V)		11.4V~12.6V / 4.8V~5.4V	
Output current 12V / 5V		5A / 1A (Continuous) 7A (Peak@5min.)	6A / 1.5A(Continuous) 8A (Peak@6min.)
Output Power		65W (Continuous) 84W (Peak@5min.)	79.5W (Continuous) 96W (Peak@6min.)
Output voltage ripple and noise		720mVp-p (12V) / 300mVp-p (5V); 5MHz~20MHz BW	
Enable Function		The voltage range for Enable is identical to the Input Voltage Range	
Current Protection (OCP/SCP)		Over-Current Protection (OCP) and Short Circuit Protection (SCP) are activated when current max is exceeded and restored after fault condition is removed.	
Over Voltage Protection (OVP)		OVP triggers at 14.5V typ (<16V), entering auto-recovery mode. Converter returns to normal operation after the fault condition is removed (<14.5V typ.)	
Over Temp Protection (OTP)		The power supply enters self-protection mode if the max temperature is exceeded and returns to normal operation, after fault condition is removed.	
Temperature	Operating	-20°C ~ 50°C	-33°C ~ 70°C
	Baseplate Storage	120°C	120°C
Relative Humidity		-40~85°C	
Cooling		10~90% non-condensing	
Ingress Protection		Natural Cooling	
Dimensions (L x W x H)		IP67 for module (excl. connector)	
Weight		50 x 23.1 x 24.2mm	69 x 32.1 x 23.2mm
		42g ± 10g	58g ± 10g

Note: Specification is subject to change without notice.

Mechanical: Standard Version



Mechanical: Metal Cover Version



Connector Info

Type	In Converter Cable Female	Manufacturer	Customer Connector (Male)	Manufacturer
Input and 12V Output (12V) Connector	4PIN: FB2204B/ 70410-6.3-10; 3PIN: FB2203A/ 70310-6.3-10	Jiixin Electric Co., Ltd http://www.tzjxdq.com	70410-6.3-21	Jiixin Electric Co., Ltd http://www.tzjxdq.com
5V Output Connector	HX25022-3P, HX25022-PT	Zhejiang Hongxing Electrical Co., Ltd http://www.hxdy.cn	HX25023-3R, HX25023-RT	Zhejiang Hongxing Electrical Co., Ltd http://www.hxdy.cn

Pin Info: Input and 12V Output connector:

Pin No.	Function	Electrical determination
1	+Vin	Input voltage positive
2	Enable	Enable
3	+12V Out	Output voltage positive 12V
4	Ground	Ground

Pin Info: 5V Output connector:

Pin No.	Function	Electrical determination
1	+5V Vo	5V positive
2	NC	No Connection
3	Ground	Ground

* For enable option model, Pin 2 is present. For standard, pin 2 is not included. The voltage range for enable is same as Input Voltage