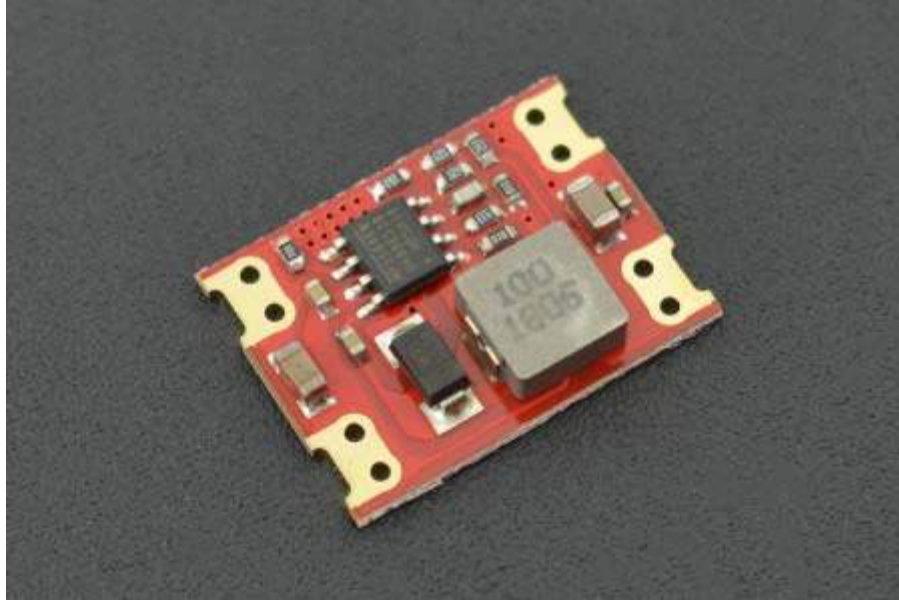




**DFROBOT**  
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## **DC-DC Buck-Mode Power Module (8~28V to 5V 3A)**

SKU:DFR0571

### *INTRODUCTION*

This is a DC-DC buck-mode power module, with input voltage range 8V~28V and fixed output voltage/current 5V/3A. Its work frequency can reach to 0.5MHz. The module has high conversion rate and small size, easy to embed.

Besides, it has steady output voltage, which can work long time without voltage shift and is suitable for the occasions with high requirements. This product can work with some high-capacity and high-voltage batteries to DIY some mobile power. It can also be embedded into your project to provide multiple power options.

### *FEATURES*

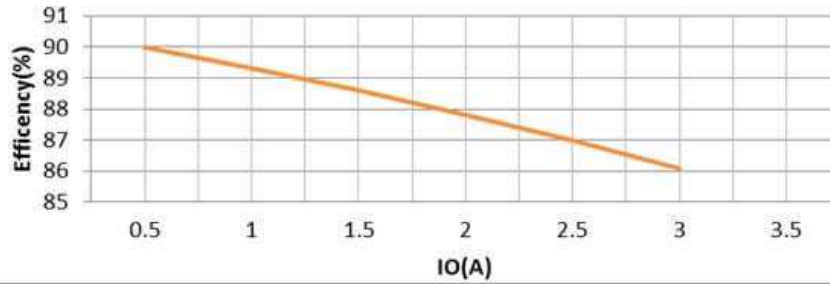
- Small size, stable performance, wide voltage range for a variety of DIY applications

### *APPLICATIONS*

Power supply for controller main-board, DIY current source, floodlight, DIY toy car, communication device, digital radio

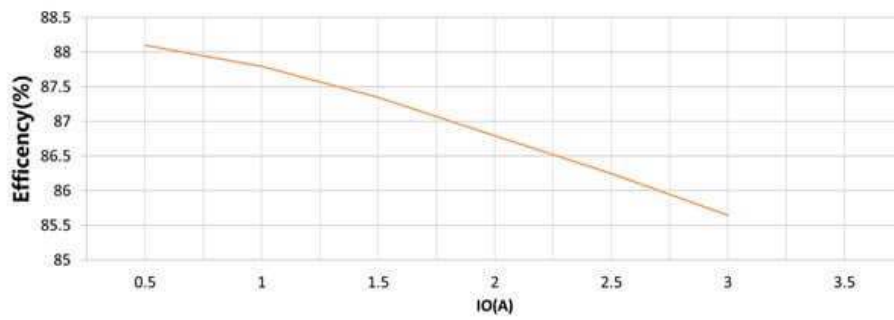
(VIN=8V VO=3.3V FS=0.5MHz)

### Efficiency vs Output Current



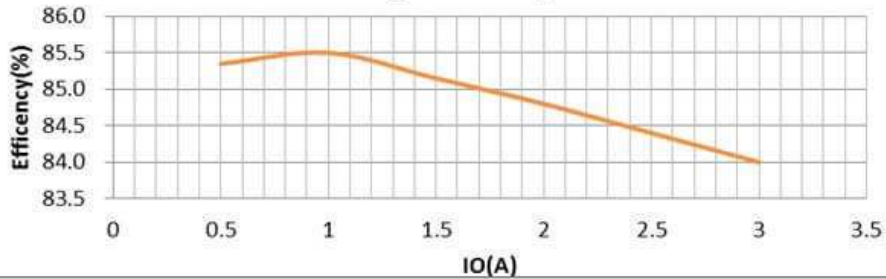
(VIN=12V VO=3.3V FS=0.5MHz)

### Efficiency vs Output Current



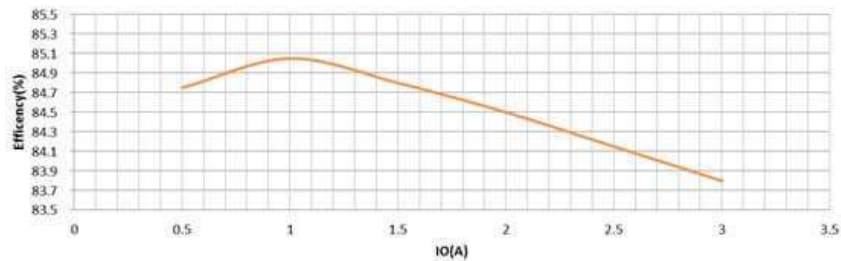
(VIN=24V VO=3.3V FS=0.5MHz)

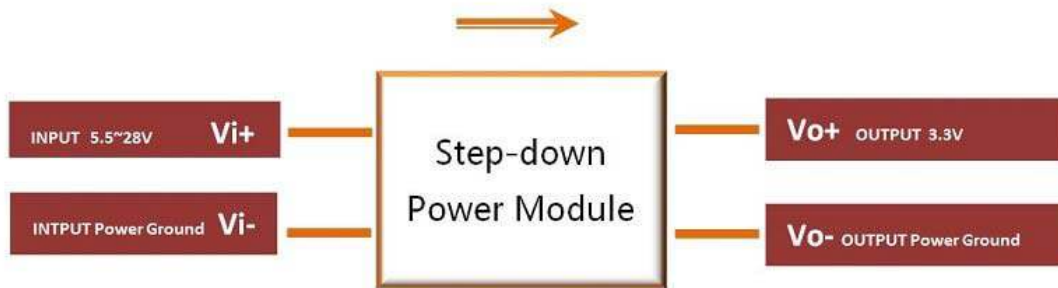
### Efficiency vs Output Current



(VIN=28V VO=3.3V FS=0.5MHz)

### Efficiency vs Output Current





## *SPECIFICATION*

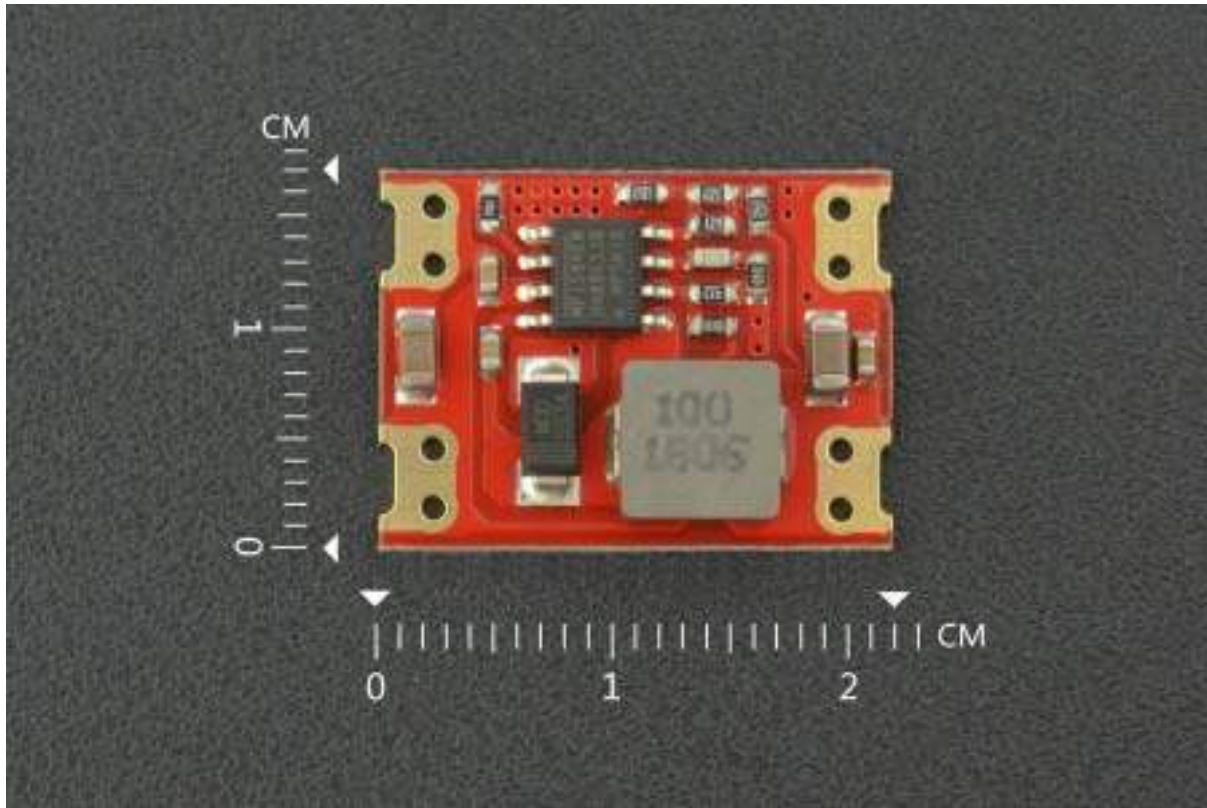
- Input Voltage: 8~28Vdc
- Output Voltage: 5V
- Output Accuracy:  $\pm 0.1V$
- The Maximum Output Peak Current: 3A
- Full-Load Output Ripple:  $V_{pp} < 50mV$
- No-Load Current:  $I_Q$  0.5mA
- Switch-Off Function: Not Support
- Operating Temperature:  $-20^{\circ}C \sim +85^{\circ}C$
- Operating Humidity: 20% ~ 90% relative humidity, no condensation
- Storage Temperature:  $-40^{\circ}C \sim +125^{\circ}C$
- Installation Method: Chip-mounting
- With or Without Isolation: Without Isolation
- Service Life: 30000h
- Dimension : 16.5×22mm/0.65×0.87inch

### **NOTE**

1. The input voltage must within 28V.
2. Load current should not be in 3A or above for a long time, otherwise it will affect the service life of the module and even burn out.
3. If the load current is relatively high, you should increase the minimum input voltage to ensure normal operation.

## *SHIPPING LIST*

- DC-DC Buck-Mode Power Module (8~28V to 5V 3A) x1



<https://www.dfrobot.com/product-1768.html> 8-7-18