ECCO Electronics Technology Co.,ltd

100W DC-DC converter(1/4 brick)

Typical Performance

FEATURES

- Wide Input voltage range (4:1)
- Typical Efficiency:85%
- Switching frequency：300KHz
- Output Over current protect,Short circuit protection
- input under voltage protection,over voltage protection
- input-output isolated
- PCB Board in-line type installs
- High reliability
- Optional heat sink



CE RoHS

3-Years Product Warranty

Technology parameter Test condition:General Nominal Line,Tc=25℃， Rated resistant load unless other wisespecified

Input Features	Min	Nom	Max	Notes
	Test condition			
Start voltage	18V(9~36V)			10V
Input under voltage protection	18V(9~36V)			8V
Input voltage（Vdc）	9	18	36	W 4:1
Start time	Not capacitive load			20mS
Remote On/Off Function				
CTL	CNT Pin connect -Vin			OFF
	CNT Pin left open			ON
Output Feature				
	Test condition			

Voltage accuracy	Io=0.1...1.0xIonom,Vi=Vrated		±1.0%
Line regulation	Vimin≤Vi≤Vimax		±0.2%
Load regulation	Io=0.1...1.0xIonom,Vimin≤Vi≤Vimax,,Vi=Vrated		±0.5%
Ripple&noise	2-MHz Broadband		1%
Over current protection	Vimin≤Vi≤Vimax		120%
Peak Deviation	25% Rated Load Vary		±5.0%
Dynamic Response Setting Time			400us
Output Voltage Trim	Vimin≤Vi≤Vimax		10%
Switching frequency	Vimin≤Vi≤Vimax		300KHz

General Feature

	Test condition		
Efficiency			85% typical
Board temperature	Industry level		-25℃ ~ +55℃
Working environment temperature	Military level		-25℃ ~ +85℃
Max Board temperature	Industry level		+85℃
	Military level		+105℃
Storage temperature	Industry level		-40℃ ~ +105℃
	Military level		-50℃ ~ +105℃
Relative humidity	No condensation		5%~90%RH
Temperature coefficient			±0.02%/℃
case material			aluminium baseplate
Isolated resistance	Input-Output		100M ohm
Vibration resistance	10~55Hz		5G
Over current mode	Full input range	Protection type : Hiccup mode, recovers automatically	
Cooling		Heatsink,nature cooling	
Case material		epoxy,Aluminum base plate	
Isolated Voltage	Input-output 1500Vdc; input-FG 1500Vdc,Output-FG 500Vdc		
MTBF	MIL-HDBK-217F2		$5X10^6$Hrs

Product Nomination Method

example	L D 200 – G 48 S 12 ① ② ③ ④ ⑤ ⑥ ⑦

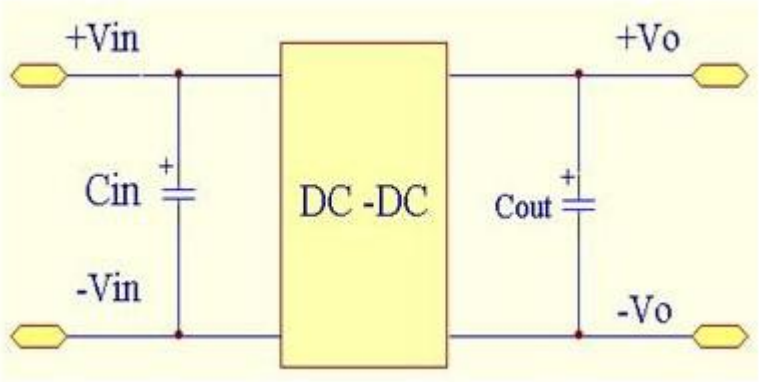
①	Wide input voltage：2：1	④	G:1/4 brick package
②	Power adaptation mode：D（DC-DC）	⑤	Normal input voltage
③	Output power(W)	⑥	S=Single route output
⑦	output voltage		

Product Program

PART #	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	A	V	A	V	A
LD100G-18S12	18V(9-36V)	12V	8.33A				

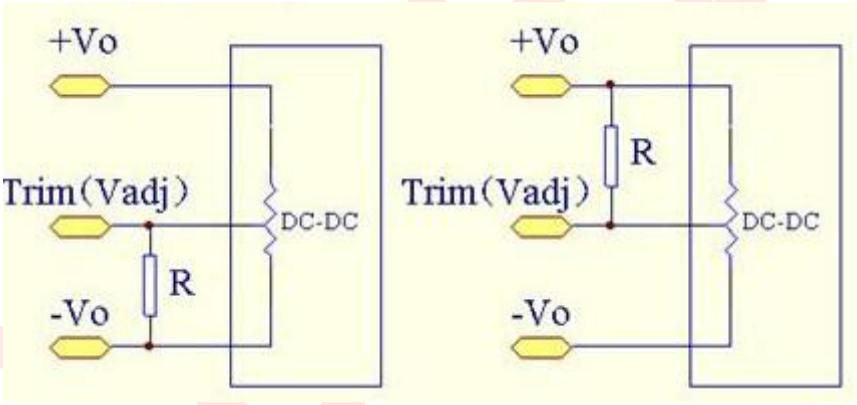
Recommended Circuit

ECCOELEC



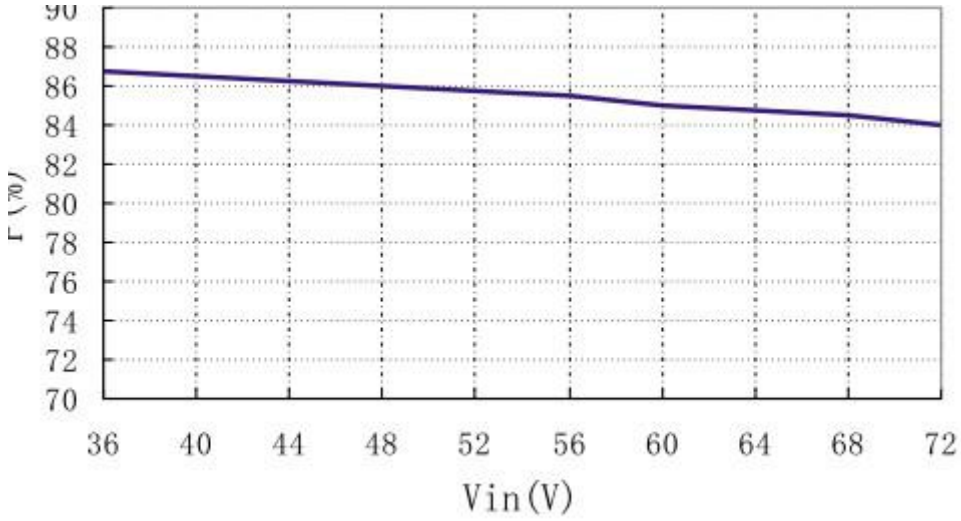
(1)Power module with Cin is helpful to improve the electromagnetic compatibility, it is recommended to use 47 μF~100μF electrolytic capacitor
(2)Power module with Cout is helpful to lower the output ripple
(3)Power module output connects the digital circuit needs to add Cout
(4)Cout is recommended to use 100μF/A, the current is refers to the output current

TRIM

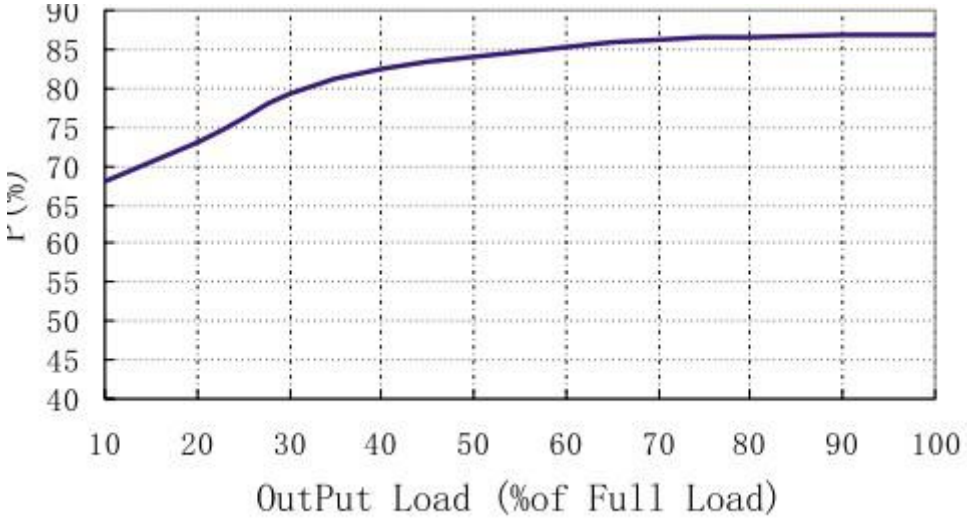


Raise output voltage **Low output voltage**

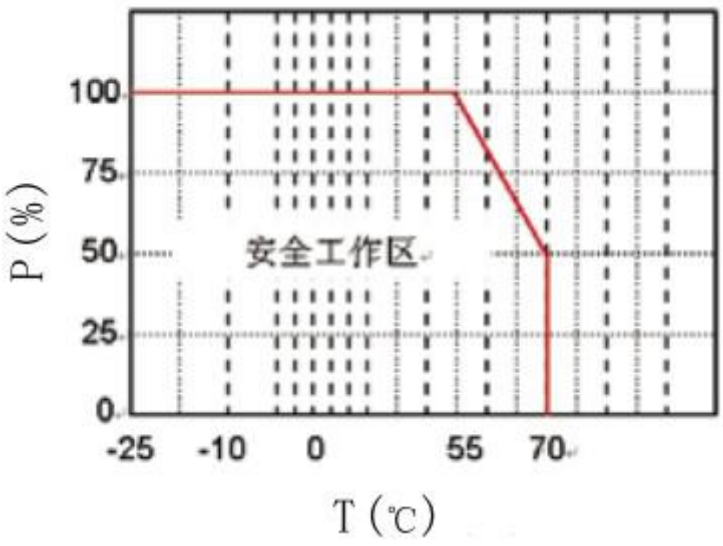
Input voltage--Efficiency



Output Load--Efficiency

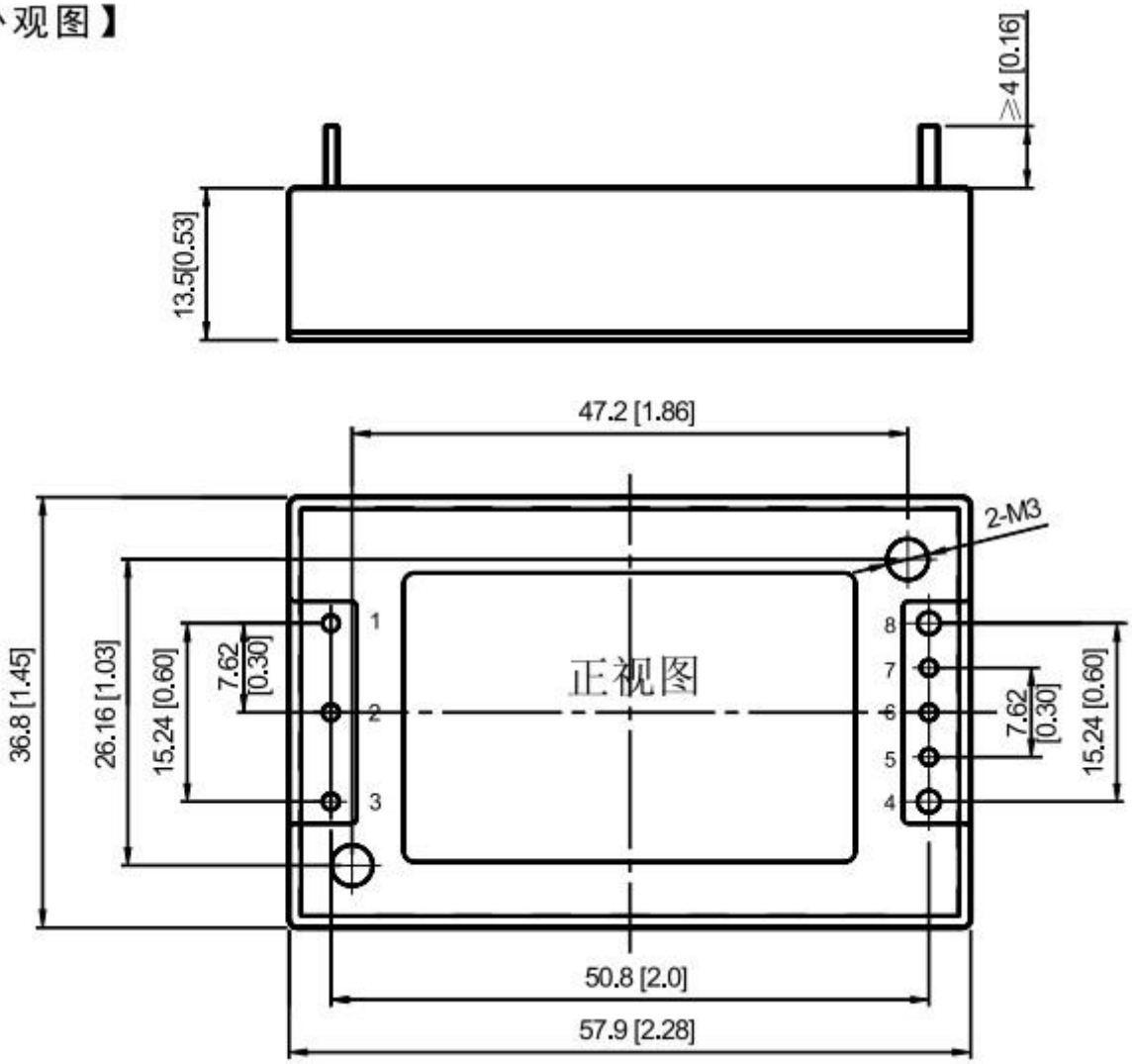


Temperature Curve



Mechanical Dimension

【外观图】



BOTTON VIEW

Unit:mm(inch)

Tolerance:±0.2mm(±0.008inch)

Mechanical Data

WATT	L x W x H	Packing No.
100W	57.9*36.8*12.7mm	

Pin Assignment

Pin	1	2	3	4	5	6	7	8		
Single O/P	-Vin	CTL	+Vin	+Vo	+S	TRIM	-S	-Vo		

*Note：The power modules such as the definition of the pin does not match with the hand book,please refer to the actual item.