ECCO Electronics Technology Co.,ltd

200W DC-DC converter(1/2 brick)

Typical Performance

FEATURES

- Wide Input voltage range (2:1/4:1)
- Typical Efficiency:85%
- Switching frequency：300KHz
- Working temperature:-40~+85℃
- Output Over current protect,Short circuit protection
- input under voltage protection
- input-output isolated
- PCB Board in-line type installs
- High reliability
- Optional heat sink

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	24V(18~36Vin)			18V
	48V(36~72Vin)			36V
	110V(72~144Vin)			72V
	18V(9~36V)			10V
Input under voltage protection	24V(18~36Vin)			17V
	48V(36~72Vin)			35V
	110V(72~144Vin)			71V
	18V(9~36V)			8V
Input voltage（Vdc）	18	24	36	W 2:1
	36	48	72	W 2:1
	72	110	144	W 2:1
	9	18	36	W 4：1
	18	36	72	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
Working environment temperature	Military level			-40℃ ~ +85℃
Max Board temperature				+105℃
Storage temperature	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

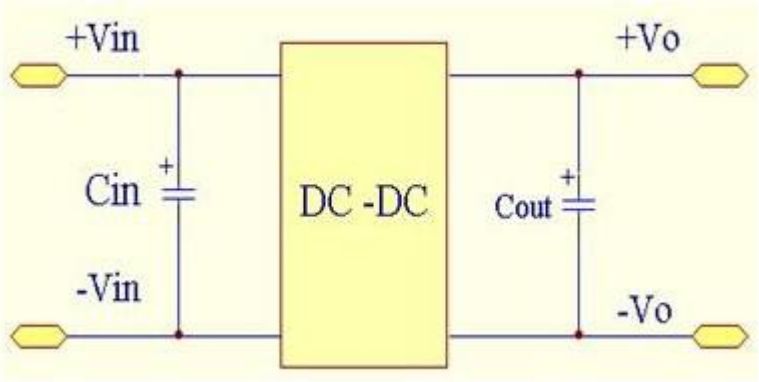
Product Nomination Method

example	L D 200 – Q 48 S 12 ① ② ③ ④ ⑤ ⑥ ⑦		
①	Wide input voltage：2：1	④	G:1/2 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

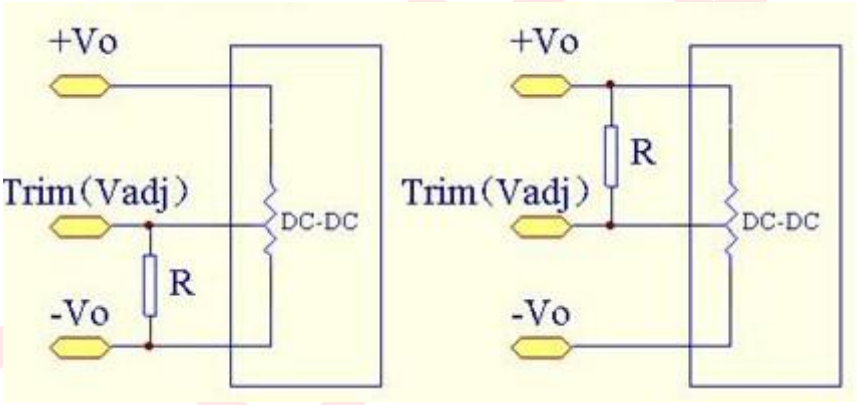
PART #	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	A	V	A	V	A
LD200Q-12S12H	12V(9~18V)	12V	16.7A				
LD200Q-12S15H		15V	13.3A				
LD200Q-12S24H		24V	8.3A				
LD200Q-18S12H	18V(9-36V)	12V	16.7A				
LD200Q-18S15H		15V	13.3A				
LD200Q-18S24H		24V	8.3A				
LD200Q-24S3V3H	24 V(18~36V)	3.3V	40A				
LD200Q-24S05H		5V	40A				
LD200Q-24S12H		12V	16.7A				
LD200Q-24S15H		15V	13.3A				
LD200Q-24S18H		18V	11.1A				
LD200Q-24S24H		24V	8.3A				
LD200Q-24S28H		28V	7.1A				
LD200Q-24S36H		36V	5.6A				
LD200Q-24S48H		48V	4.2A				
LD200Q-48S3V3H	48 V(36~72V)	3.3V	40A				
LD200Q-48S05H		5V	40A				
LD200Q-48S12H		12V	16.7A				
LD200Q-48S15H		15V	13.3A				
LD200Q-48S24H		24V	8.3A				

LD200Q-48S28H		28V	7.1A				
LD200Q-48S48H		48V	4.2A				
LD200Q-36S12H	36V(18~72V)	12V	16.7A				
LD200Q-36S15H		15V	13.3A				
LD200Q-36S24H		24V	8.3A				
LD200Q-36S28H		28V	7.1A				
LD200Q-36S48H		48V	4.2A				
LD200Q-110S3V3H	110V(72~144V)	3.3V	40A				
LD200Q-110S05H		5V	40A				
LD200Q-110S12H		12V	16.7A				
LD200Q-110S15H		15V	13.3A				
LD200Q-110S24H		24V	8.3A				
LD200Q-110S28H		28V	7.1A				
LD200Q-110S48H		48V	4.2A				
Recommended Circuit							



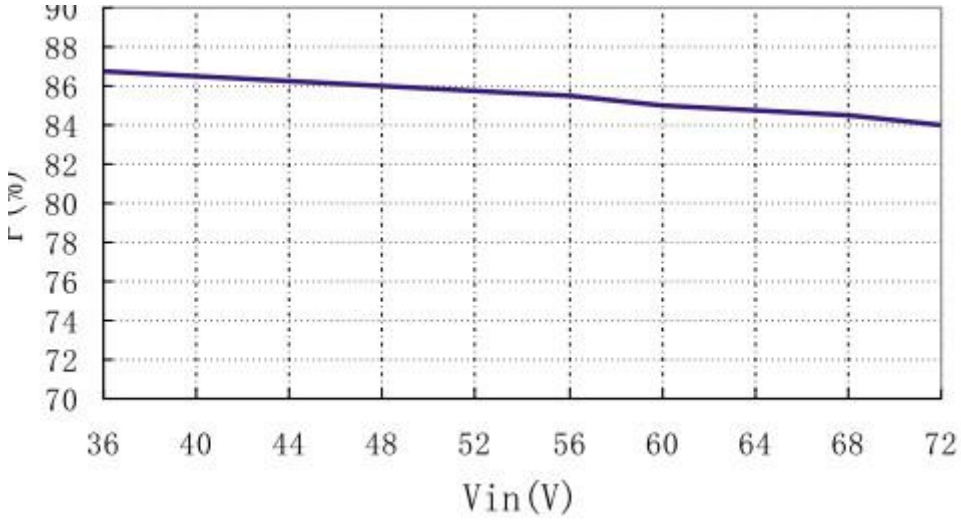
(1)Power module with Cin is helpful to improve the electromagnetic compatibility, it is recommended to use 47 μF~100μF electrolytic capacitor
(2)Power module with Cout is helpful to lower the output ripple
(3)Power module output connects the digital circuit needs to add Cout
(4)Cout is recommended to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

TRIM

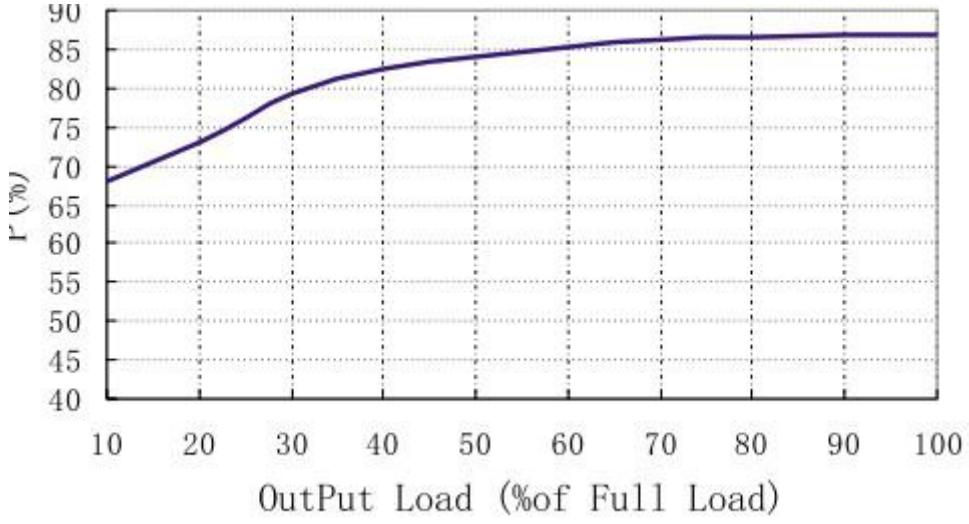


Raise output voltage **Low output voltage**

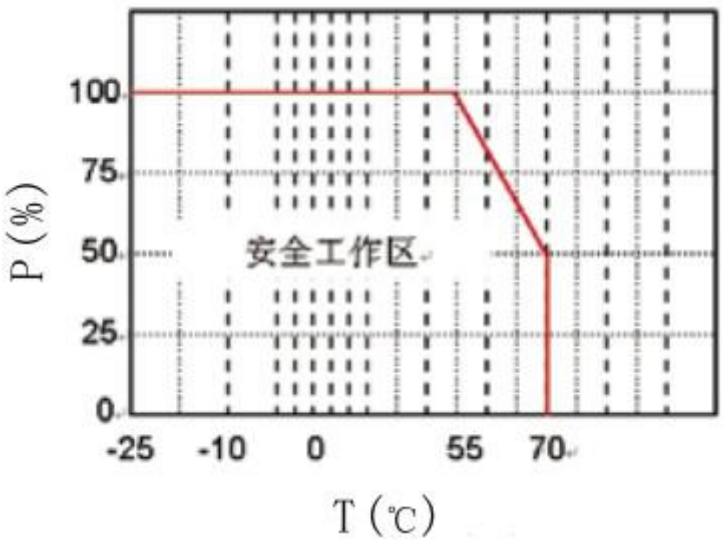
Input voltage--Efficiency



Output Load--Efficiency

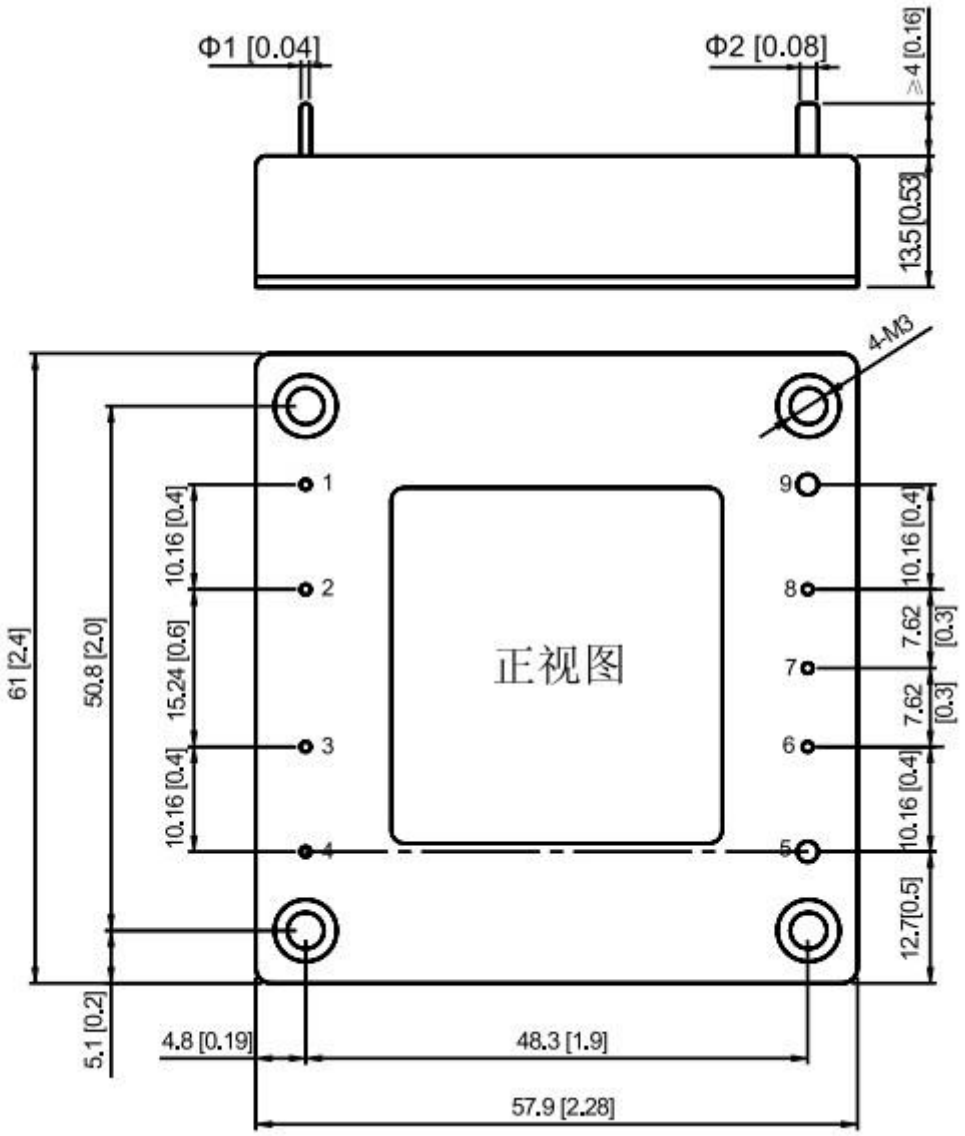


Temperature Curve



Mechanical Dimension

Unit:mm(inch)



BOTTON VIEW

Unit:mm(inch)

Tolerance:±0.2mm(±0.008inch)

Mechanical Data

WATT	L x W x H	Packing No.
200W	57.90x 61.00 x 12.70mm	

Pin Assignment

Pin	1	2	3	4	5	6	7	8	9		
Single O/P	-Vin	CASE	CTL	+Vin	+Vout	+S	TRIM	-S	-Vout		

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