

**Typical Performance**

**FEATURES**

- Wide Input voltage range (2:1/4:1)
- Typical Efficiency:85%
- Switching frequency: 300KHz
- 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°C , Rated resistant load unless other wisespecified

Input Features	Min	Nom	Max	Notes
	Test condition			
Start voltage	110V(72~144Vin)			72V
Input under voltage protection	110V(72~144Vin)			71V
Input voltage (Vdc)	72	110	144	W 2:1
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...1.0xlnom,Vi=Vrated		±1.0%

Line regulation	$V_{min} \leq V_i \leq V_{max}$		±0.2%
Load regulation	$I_o = 0.1 \dots 1.0 \times I_{nom}, V_{min} \leq V_i \leq V_{max}, V_i = V_{rated}$		±0.5%
Ripple&noise	2-MHz Broadband		1%
Over current protection	$V_{min} \leq V_i \leq V_{max}$		120%
Peak Deviation	25% Rated Load Vary		±5.0%
Dynamic Response Setting Time			400us
Output Voltage Trim	$V_{min} \leq V_i \leq V_{max}$		10%
Switching frequency	$V_{min} \leq V_i \leq V_{max}$		300KHz

### General Feature

	Test condition		
Efficiency			85% typical
Board temperature	Industry level		-25°C ~ +55°C
Working environment temperature	Military level		-25°C ~ +85°C
Max Board temperature	Industry level		+85°C
	Military level		+105°C
Storage temperature	Industry level		-40°C ~ +105°C
	Military level		-50°C ~ +105°C
Relative humidity	No condensation		5%~90%RH
Temperature coefficient			±0.02%/°C
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 <sup>6</sup> Hrs

### Product Nomination Method

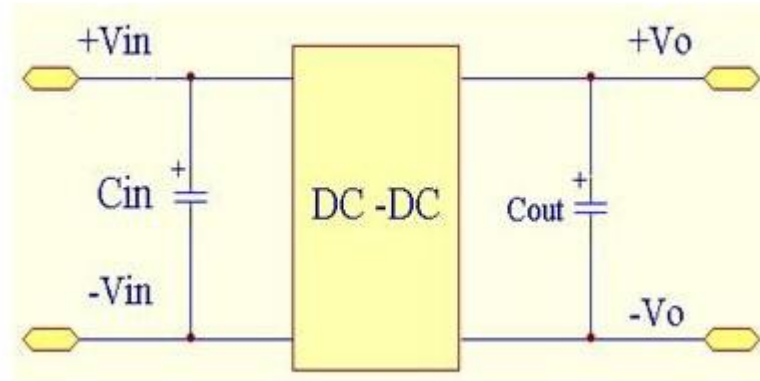
example	L D 200 – Q 48 S 12						
	①	②	③	④	⑤	⑥	⑦
①	Wide input voltage: 2: 1			④	G:1/2 brick package		

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

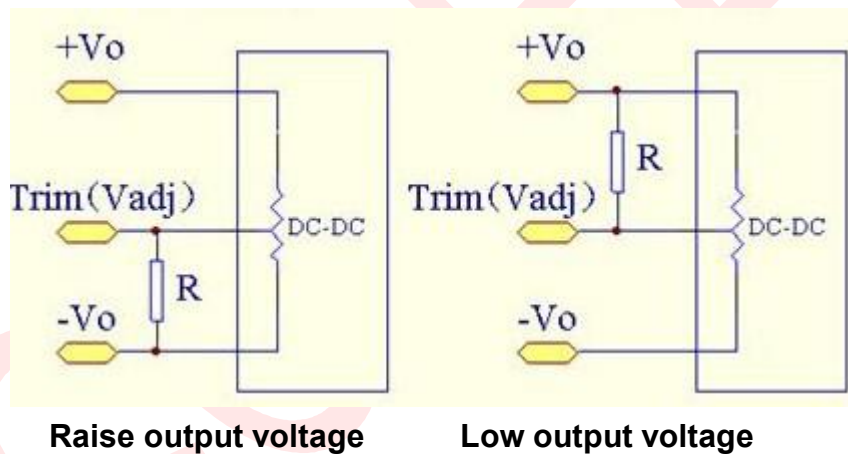
PART #	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	A	V	A	V	A
LD200Q-110S3V3	110V(72~144V)	3.3V	40A				
LD200Q-110S05		5V	40A				
LD200Q-110S12		12V	16.7A				
LD200Q-110S15		15V	13.3A				
LD200Q-110S24		24V	8.3A				
LD200Q-110S28		28V	7.1A				
LD200Q-110S48		48V	4.2A				

### Recommended Circuit

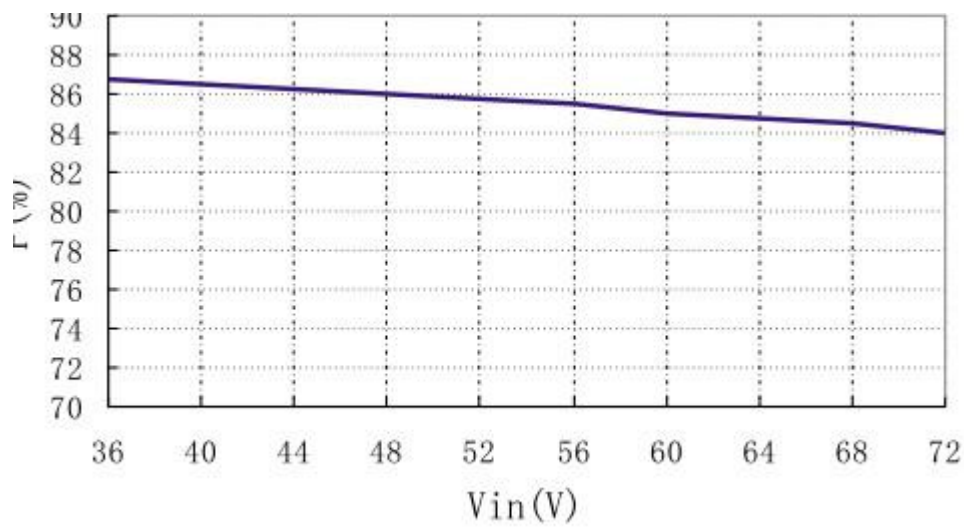


- (1) Power module with  $C_{in}$  is helpful to improve the electromagnetic compatibility, it is recommended to use  $47\mu F \sim 100\mu F$  electrolytic capacitor
- (2) Power module with  $C_{out}$  is helpful to lower the output ripple
- (3) Power module output connects the digital circuit needs to add  $C_{out}$
- (4)  $C_{out}$  is recommended to use  $100\mu F/A$ , the current is refers to the output current

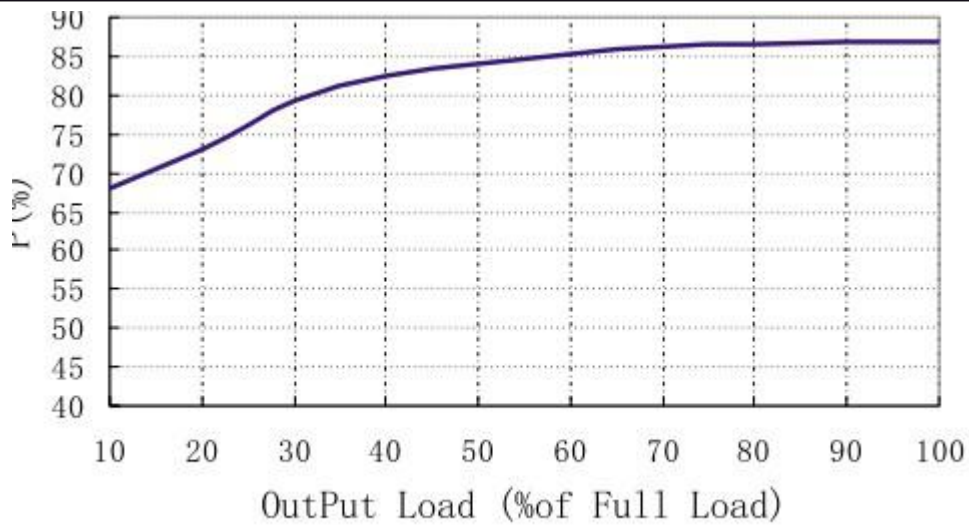
## TRIM



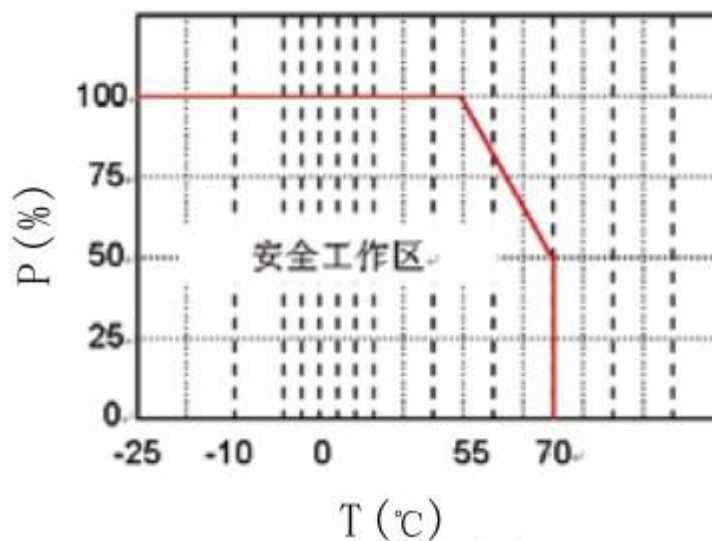
*Input voltage--Efficiency*



### Output Load--Efficiency

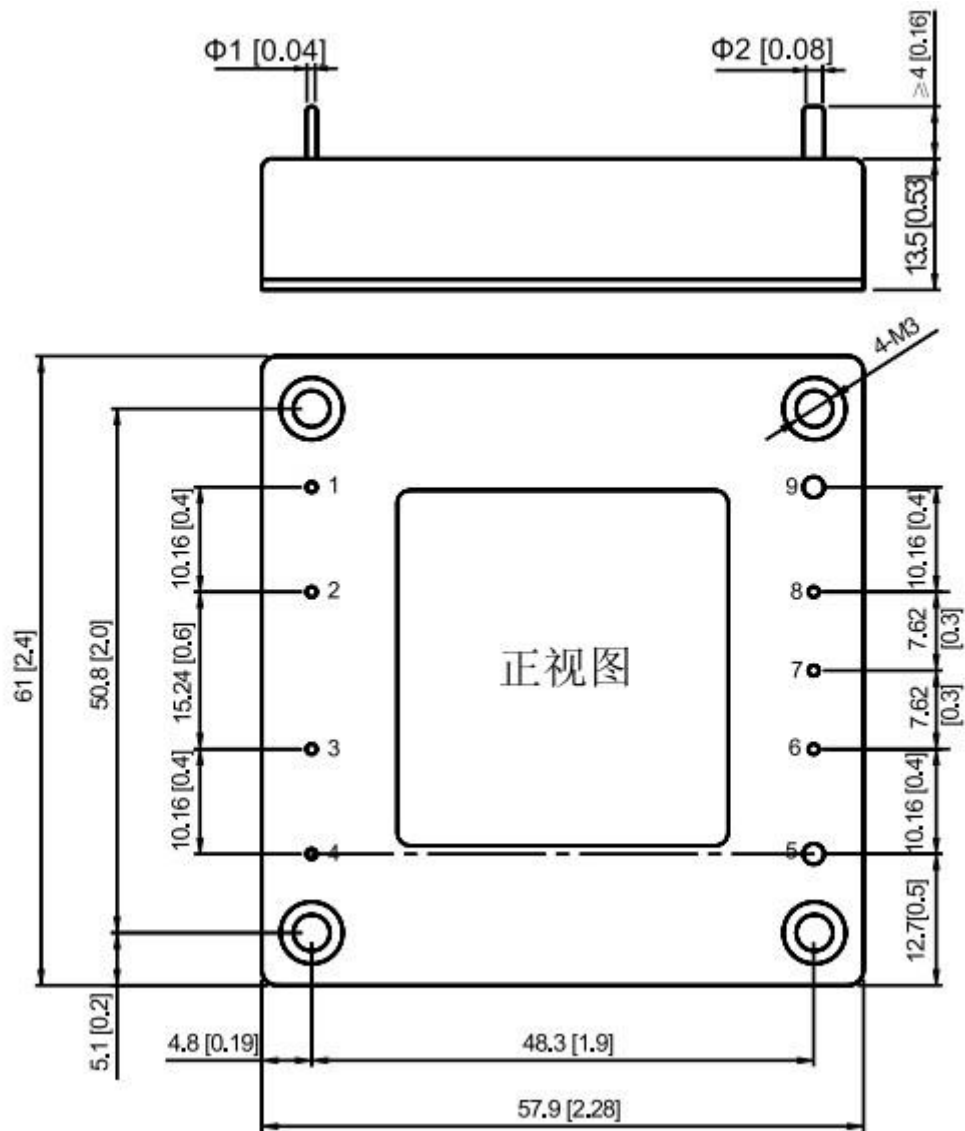


### Temperature Curve



## Mechanical Dimension

Unit:mm(inch)



BOTTOM VIEW

Unit:mm(inch)

Tolerance: $\pm 0.2$ mm( $\pm 0.008$ inch)

## 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.