

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	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	$I_o=0.1...1.0 \times I_{onom}, V_i=V_{rated}$		$\pm 1.0\%$
Line regulation	$V_{imin} \leq V_i \leq V_{imax}$		$\pm 0.2\%$
Load regulation	$I_o=0.1...1.0 \times I_{onom}, V_{imin} \leq V_i \leq V_{imax}, V_i=V_{rated}$		$\pm 0.5\%$
Ripple&noise	2-MHz Broadband		1%
Over current protection	$V_{imin} \leq V_i \leq V_{imax}$		120%
Peak Deviation	25% Rated Load Vary		$\pm 5.0\%$
Dynamic Response Setting Time			400us
Output Voltage Trim	$V_{imin} \leq V_i \leq V_{imax}$		10%
Switching frequency	$V_{imin} \leq V_i \leq V_{imax}$		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			$\pm 0.02\%/^{\circ}\text{C}$
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 ⁶ Hrs

Product Nomination Method

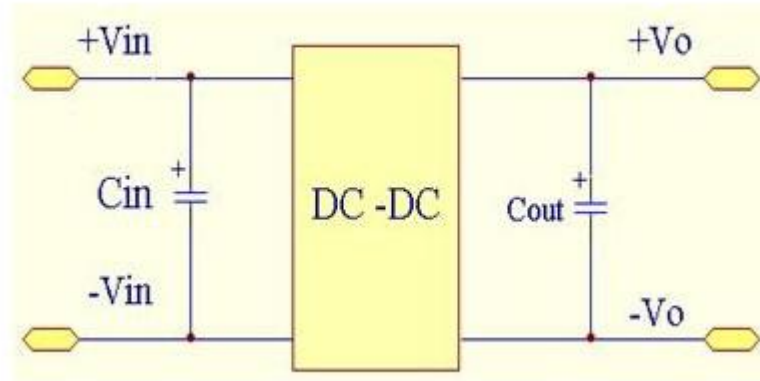
example	L D 200 – Q 48 S 12 ① ② ③ ④ ⑤ ⑥ ⑦		
①	Wide input voltage: 2: 1	④	G:1/2 brick package
②	Power adaptation mode: D (DC-DC)	⑤	Normal input voltage
③	Output power(W)	⑥	S=Single route output
⑦	output voltage		

Product Program

PART #	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	A	V	A	V	A
LD150Q-12S12	12V(9~18V)	12V	12.5 A				
LD150Q-12S15		15V	10A				
LD150Q-12S24		24V	6.25A				
LD150Q-12S28		28V	5.4A				
LD150Q-12S48		48V	3.1A				
LD150Q-18S12	18V(9~36V)	12V	12.5 A				
LD150Q-18S15		15V	10A				
LD150Q-18S24		24V	6.25A				
LD150Q-18S28		28V	5.4A				
LD150Q-18S48		48V	3.1A				
LD150Q-24S3V3	24 V(18~36V)	3.3V	30A				
LD150Q-24S05		5V	30A				
LD150Q-24S12		12V	12.5 A				
LD150Q-24S15		15V	10A				
LD150Q-24S18		18V	8.33A				
LD150Q-24S18V5		18.5V	8.1A				

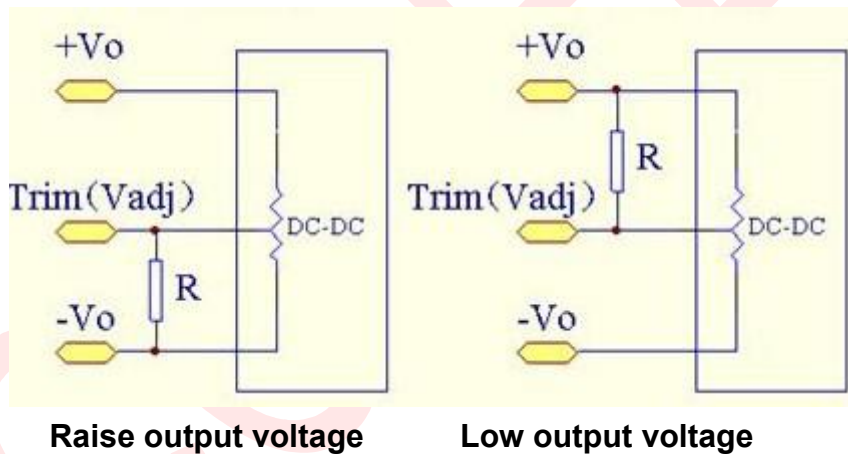
LD150Q-24S19		19V	7.89A				
LD150Q-24S24		24V	6.25A				
LD150Q-24S28		28V	5.4A				
LD150Q-24S36		36V	4.17A				
LD150Q-24S48		48V	3.1A				
LD150Q-48S3V3	48 V(36~72V)	3.3V	30A				
LD150Q-48S05		5V	30A				
LD150Q-48S12		12V	12.5 A				
LD150Q-48S15		15V	10A				
LD150Q-48S18		18V	8.33A				
LD150Q-48S24		24V	6.25A				
LD150Q-48S28		28V	5.4A				
LD150Q-48S36		36V	4.17A				
LD150Q-48S48		48V	3.1A				
LD150Q-36S12		36V(18~72V)	12V	12.5 A			
LD150Q-36S15	15V		10A				
LD150Q-36S24	24V		6.25A				
LD150Q-36S28	28V		5.4A				
LD150Q-36S48	48V		3.1A				
LD150Q-110S3V3	110V(72~144V)	3.3V	30A				
LD150Q-110S05		5V	30A				
LD150Q-110S12		12V	12.5 A				
LD150Q-110S15		15V	10A				
LD150Q-110S18		18V	8.33A				
LD150Q-110S24		24V	6.25A				
LD150Q-110S28		28V	5.4A				
LD150Q-110S36		36V	4.17A				
LD150Q-110S48		48V	3.1A				

Recommended Circuit

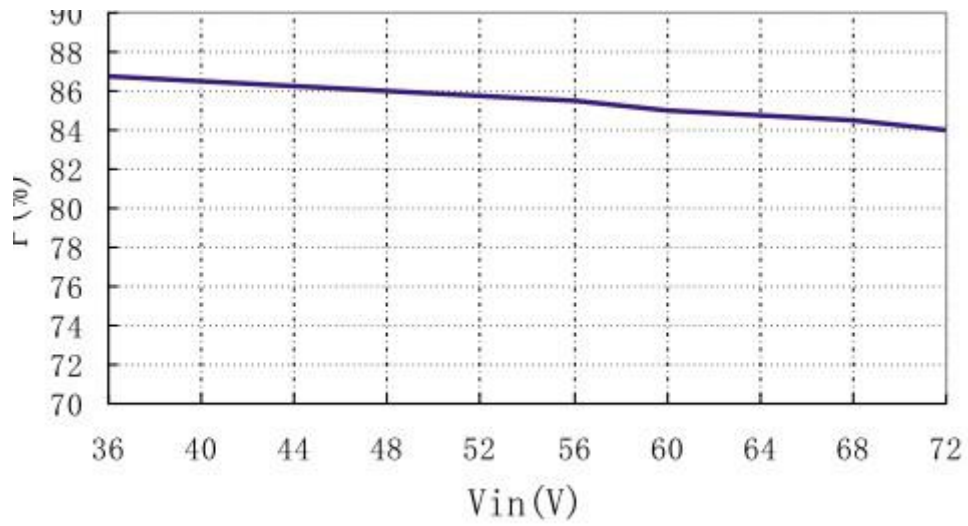


- (1) Power module with C_{in} is helpful to improve the electromagnetic compatibility, it is recommended to use $47\ \mu\text{F} \sim 100\ \mu\text{F}$ electrolytic capacitor
- (2) Power module with C_{out} is helpful to lower the output ripple
- (3) Power module output connects the digital circuit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

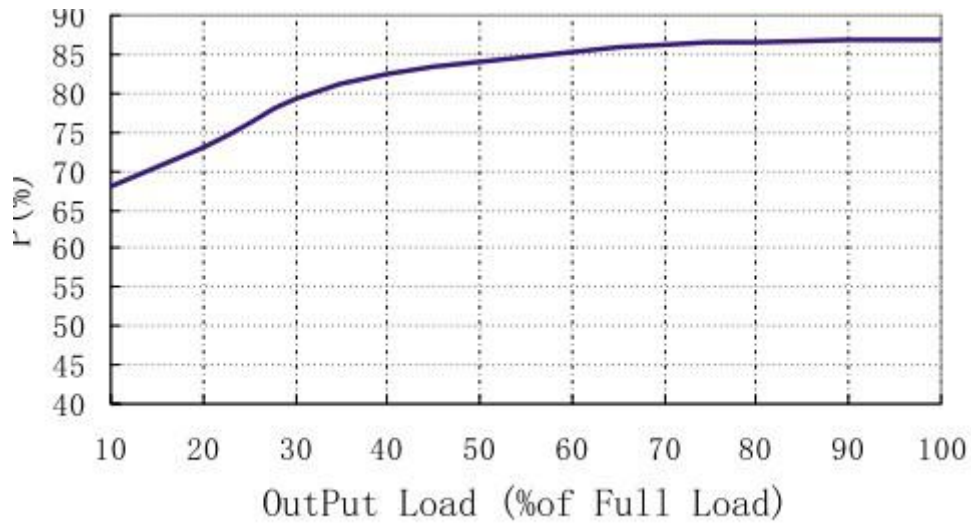
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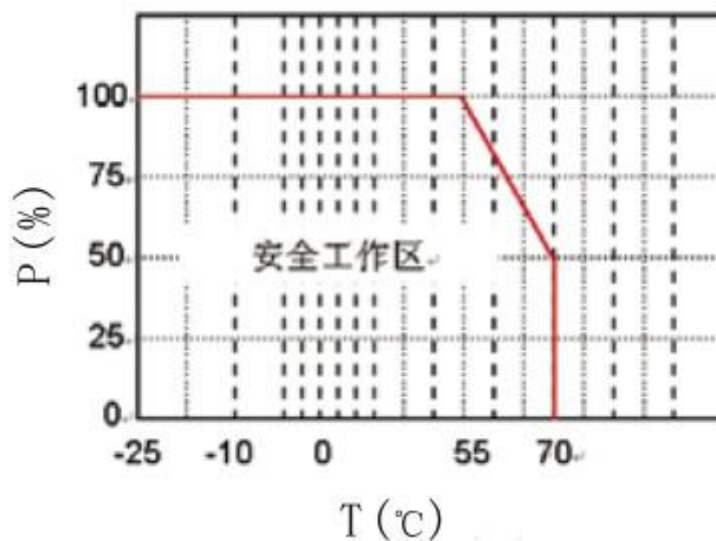
Input voltage--Efficiency



Output Load--Efficiency

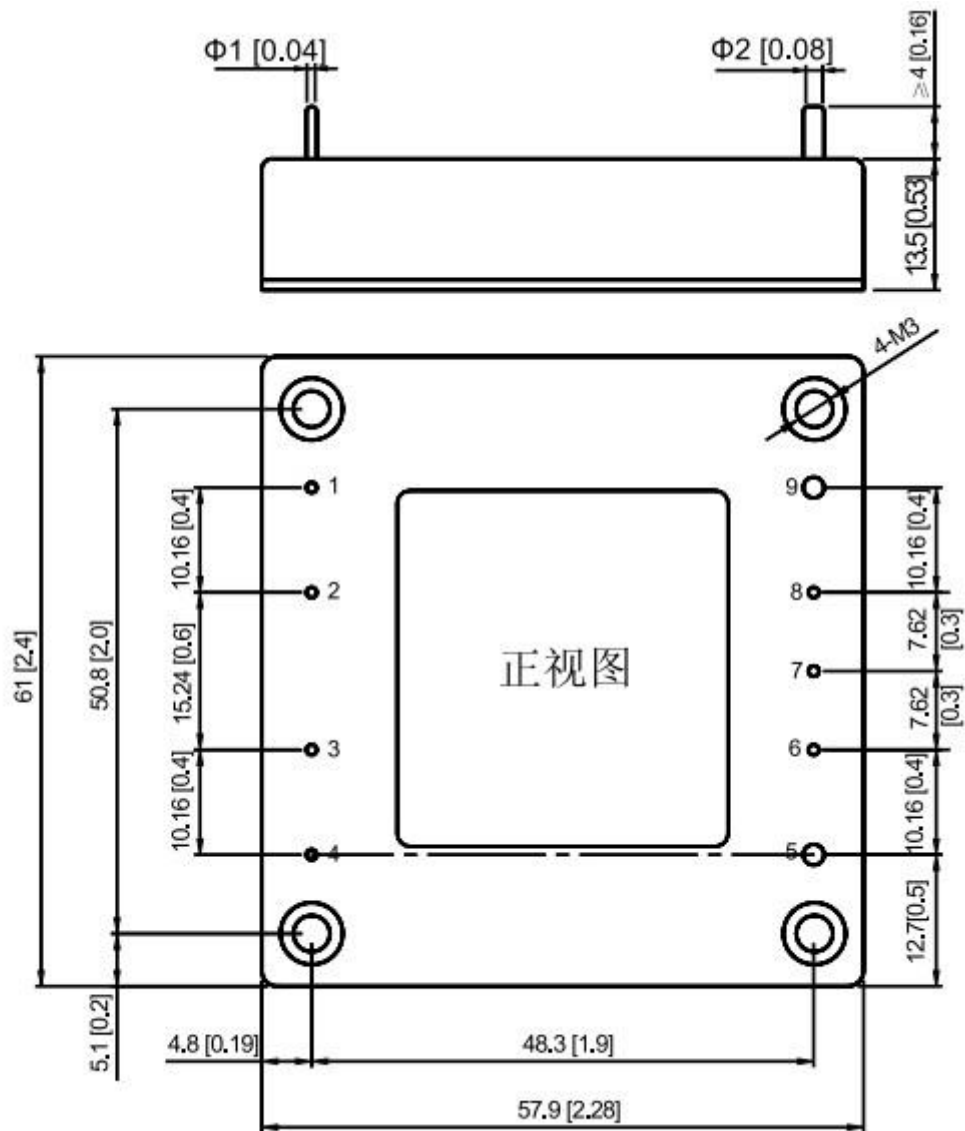


Temperature Curve



Mechanical Dimension

Unit:mm(inch)



BOTTOM VIEW

Unit:mm(inch)

Tolerance:±0.2mm(±0.008inch)

Mechanical Data

WATT	L x W x H	Packing No.
150W	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.