

Typical Performance

FEATURES

- Wide Input voltage range (2:1、4:1)
- Typical Efficiency:85%
- Switching frequency: 300KHz $\pm$ 30 KHz
- Overcurrent/Short circuit protection,Self-furbish
- Input-output isolate 1500VDC
- PCB Board in-line type installs



3-Years Product Warranty

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

Input Feature	Min	Nom	Max	Notes
Input voltage(Vdc)	9	12	18	W 2:1
	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
Turn on voltage	3.5Vdc		+Vin	Converter guaranteed on when REM pin is left open
Turn off voltage	0		0.3Vdc	

Under voltage protect

Output Feature

Voltage accuracy		Vo1;Vo2,Vo3	$\pm 1.0\%$, $\pm 2.0\%$
Line regulation		Vo1;Vo2,Vo3	$\pm 0.2\%$, $\pm 1.5\%$
Load regulation	20% ~ 100%	Vo1;Vo2,Vo3	$\pm 0.5\%$, $\pm 4.0\%$
Ripple and noise	20MHz BM Vo $\leq$ 5.0V, $\leq 50\text{mVp-p}$; Vo $\geq 48\text{V}$, $\leq 180\text{mVp-p}$; Other, $\leq 100\text{mVp-p}$;		
Dynamic response	25%	$\Delta \text{Vo1}/\Delta t$	$\pm 4.0/500\mu\text{s}\%$
Voltage adjust	Standard output voltage	TRIM	$\pm 10\%$ (adjustable)
Start delay time	typical		$\leq 200\text{mS}$

General Feature

Efficiency	Normal input , full load	Vo≤5.0V,80% typical	Vo>5.0V, 87% typical
Switching frequency		300KHz typical	Max 330KHz
Operating temperature	Free air	Industrial level	-25℃ ~ +55℃
Storage temperature			-40℃ ~ +105℃
Max case temperature			+95℃
Relative humidity			10%~90%
case material			Metal case
Isolation Voltage	500Vdc ≤0.5mA/1min,500Vdc ≤0.5mA/1min		
MTBF	2X10 ⁵ Hrs		

Product Nomination Method

example	L D 25 – 48 S 05 I ① ② ③ ④ ⑤ ⑥ ⑦						
①	Wide input voltage: 2: 1				⑥	output voltage	
②	Power adaptation mode: D（DC-DC）				⑦	I: Dual Route output Isolate	
③	Output power(W)					W: Super Wide input voltage	
④	Normal input voltage						
⑤	S=Single route output, D=Dual route output, T=Triple route output, Q=Quadruple output						

Product Program

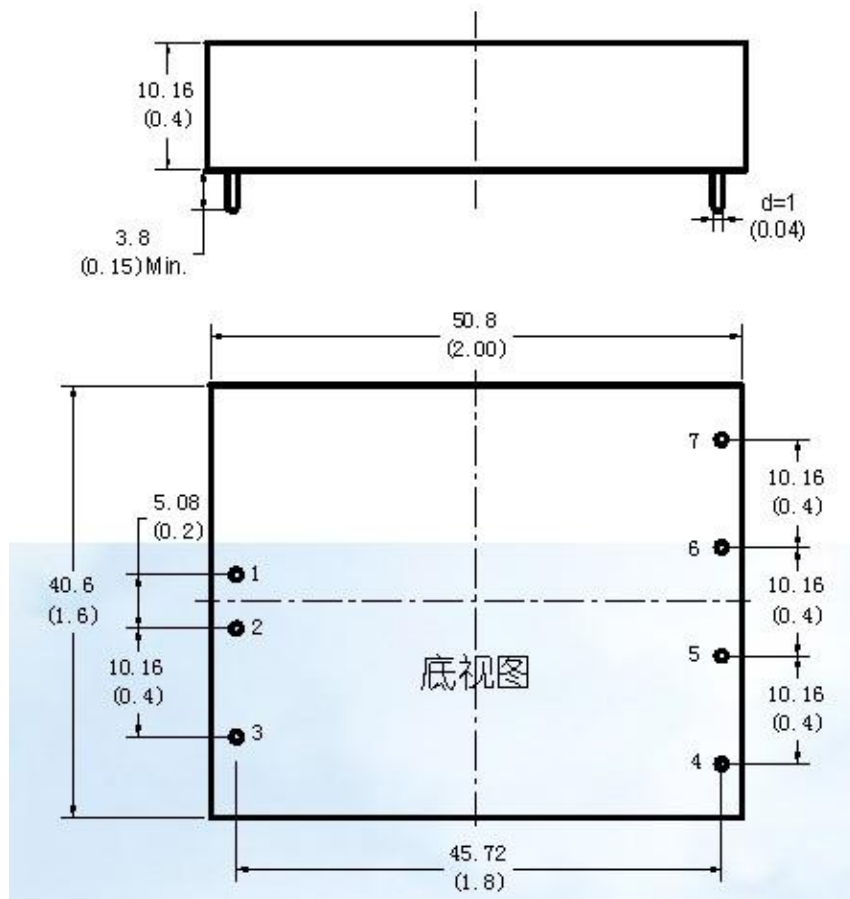
PART #	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	mA	V	mA	V	mA
LD20-12S3V3B	12V(9~18V)	3.3V	4000mA				
LD20-12S05B		5V	4000mA				
LD20-12S09B		9V	2220mA				
LD20-12S12B		12V	1660mA				
LD20-12S15B		15V	1330mA				
LD20-12S18B		18V	1111mA				
LD20-12S24B		24V	830mA				
LD20-12S28B		28V	714mA				
LD20-12S48B		48V	410 mA				
LD20-12D3V3B		+3.3V	2000 mA	-3.3V	2000 mA		

LD20-12D05B		+5V	2000 mA	-5V	2000 mA		
LD20-12D09B		+9V	1110 mA	-9V	1110 mA		
LD20-12D12B		+12V	830 mA	-12V	830 mA		
LD20-12D15B		+15V	660 mA	-15V	660 mA		
LD20-12D24B		+24V	410 mA	-24V	410 mA		
LD20-18S3V3B	18V(9~36V)	3.3V	4000mA				
LD20-18S05B		5V	4000mA				
LD20-18S09B		9V	2220mA				
LD20-18S12B		12V	1660mA				
LD20-18S15B		15V	1330mA				
LD20-18S18B		18V	1111mA				
LD20-18S24B		24V	830mA				
LD20-18S28B		28V	714mA				
LD20-18S48B		48V	410 mA				
LD20-18D3V3B		+3.3V	2000 mA	-3.3V	2000 mA		
LD20-18D05B		+5V	2000 mA	-5V	2000 mA		
LD20-18D09B		+9V	1110 mA	-9V	1110 mA		
LD20-18D12B		+12V	830 mA	-12V	830 mA		
LD20-18D15B		+15V	660 mA	-15V	660 mA		
LD20-18D24B		+24V	410 mA	-24V	410 mA		
LD20-24S3V3B	24V (18~36V)	3.3V	4000mA				
LD20-24S05B		5V	4000mA				
LD20-24S09B		9V	2220mA				
LD20-24S12B		12V	1660mA				
LD20-24S15B		15V	1330mA				
LD20-24S18B		18V	1111mA				
LD20-24S24B		24V	830mA				
LD20-24S28B		28V	714mA				
LD20-24S48B		48V	410 mA				
LD20-24D3V3B		+3.3V	2000 mA	-3.3V	2000 mA		
LD20-24D05B		+5V	2000 mA	-5V	2000 mA		
LD20-24D09B		+9V	1110 mA	-9V	1110 mA		

LD20-24D12B		+12V	830 mA	-12V	830 mA		
LD20-24D15B		+15V	660 mA	-15V	660 mA		
LD20-24D24B		+24V	410 mA	-24V	410 mA		
LD20-36S3V3B	36V (18~72V)	3.3V	4000mA				
LD20-36S05B		5V	4000mA				
LD20-36S09B		9V	2220mA				
LD20-36S12B		12V	1660mA				
LD20-36S15B		15V	1330mA				
LD20-36S18B		18V	1111mA				
LD20-36S24B		24V	830mA				
LD20-36S28B		28V	714mA				
LD20-36S48B		48V	410 mA				
LD20-36D3V3B		+3.3V	2000 mA	-3.3V	2000 mA		
LD20-36D05B		+5V	2000 mA	-5V	2000 mA		
LD20-36D09B		+9V	1110 mA	-9V	1110 mA		
LD20-36D12B		+12V	830 mA	-12V	830 mA		
LD20-36D15B		+15V	660 mA	-15V	660 mA		
LD20-36D24B		+24V	410 mA	-24V	410 mA		
LD20-48S3V3B	48V (36~72V)	3.3V	4000mA				
LD20-48S05B		5V	4000mA				
LD20-48S09B		9V	2220mA				
LD20-48S12B		12V	1660mA				
LD20-48S15B		15V	1330mA				
LD20-48S18B		18V	1111mA				
LD20-48S24B		24V	830mA				
LD20-48S28B		28V	714mA				
LD20-48S48B		48V	410 mA				
LD20-48D3V3B		+3.3V	2000 mA	-3.3V	2000 mA		
LD20-48D05B		+5V	2000 mA	-5V	2000 mA		
LD20-48D09B		+9V	1110 mA	-9V	1110 mA		
LD20-48D12B		+12V	830 mA	-12V	830 mA		
LD20-48D15B		+15V	660 mA	-15V	660 mA		

LD20-48D24B		+24V	410 mA	-24V	410 mA		
LD20-110S3V3B	110V (72~144V)	3.3V	4000mA				
LD20-110S05B		5V	4000mA				
LD20-110S09B		9V	2220mA				
LD20-110S12B		12V	1660mA				
LD20-110S15B		15V	1330mA				
LD20-110S18B		18V	1111mA				
LD20-110S24B		24V	830mA				
LD20-110S28B		28V	714mA				
LD20-110S48B		48V	410 mA				
LD20-110D3V3B		+3.3V	2000 mA	-3.3V	2000 mA		
LD20-110D05B		+5V	2000 mA	-5V	2000 mA		
LD20-110D09B		+9V	1110 mA	-9V	1110 mA		
LD20-110D12B		+12V	830 mA	-12V	830 mA		
LD20-110D15B		+15V	660 mA	-15V	660 mA		
LD20-110D24B		+24V	410 mA	-24V	410 mA		

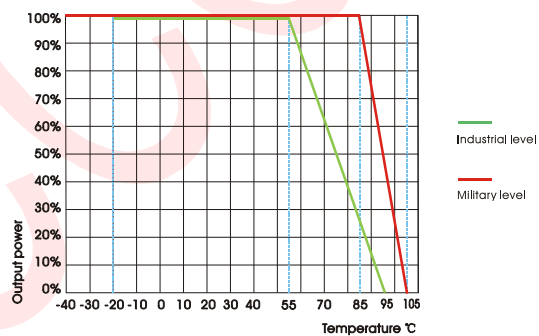
Mechanical Dimension



BOTTON VIEW

UNIT:mm(inch)

Temperature Curve



Mechanical Data

WATT	L x W x H	Packing No.
20W	50.80 x 40.64 x 10.16mm(2*1.6*0.4inch)	B

Pin Assignment

PIN NO.	1	2	3	4	5	6	7			
Single O/P	+Vin	-Vin	REM	TRIM	GND	Vo1	NP			
Dual O/P	+Vin	-Vin	REM	TRIM	-Vo2	COM	+Vo1			

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

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