


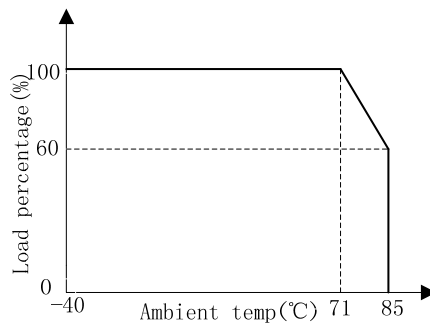
NDDY	WRA (B) _MD-10W		10W, WIDE INPUT, ISOLATED & REGULATED DUAL(SINGLE) OUTPUT DC/DC CONVERTER			
	PRODUCT SPECIFICATION					
<p>● FEATURES</p> <ul style="list-style-type: none"> ■ Size: 50.8mm*25.4mm*11.8mm ■ International standard pin-out ■ Wide input voltage range(2:1) ■ Low ripple & noise ■ Short circuit protection ■ ROHS compliant ■ Isolation voltage: 1500VDC ■ Operating temperature range:-40℃~+85℃ ■ 3 years warranty 						
						
<p>● DESCRIPTION</p> <p>This is a 10W DC/DC converter specifically designed for applications where input voltage range is large and the space is limited. It is widely used in communications equipment, power system, instrumentation, industrial control, intelligent equipment, and etc.</p>						
<p>● PRODUCT LIST</p>						
Product Name	Input Voltage / VDC		Output		EFF/% (TYP.)	Maximum CAP Load/uF
	Norminal	Range	Voltage /VDC	Current/mA Max. /Min.		
WRA1205MD-10W	12	9~18	±5	±1000	80	1000
WRA1212MD-10W			±12	±416	81	680
WRA1215MD-10W			±15	±333	82	470
WRB1205MD-10W	12	9~18	5	2000	79	2000
WRB1209MD-10W			9	1100	79	1000
WRB1212MD-10W			12	833	80	1000
WRB1215MD-10W			15	666	81	820
WRA2405MD-10W	24	18~36	±5	±1000	81	1000
WRA2412MD-10W			±12	±416	82	680
WRA2415MD-10W			±15	±333	83	470
WRB2405MD-10W	24	18~36	5	2000	80	2000
WRB2409MD-10W			9	1100	79	1000
WRB2412MD-10W			12	833	81	1000
WRB2415MD-10W			15	666	82	820
WRB2424MD-10W			24	416	82	680
WRB2448MD-10W			48	208	83	330
WRA4805MD-10W	48	36~72	±5	±1000	82	1000
WRA4812MD-10W			±12	±416	84	680
WRB4805MD-10W	48	36~72	5	2000	81	2000
WRB4812MD-10W			12	833	83	1000
WRB4824MD-10W			24	416	82	680

WRB11005MD-10W	110	72~144	5	2000	81	2000
WRB11012MD-10W			12	833	83	1000
WRB11024MD-10W			24	416	82	680

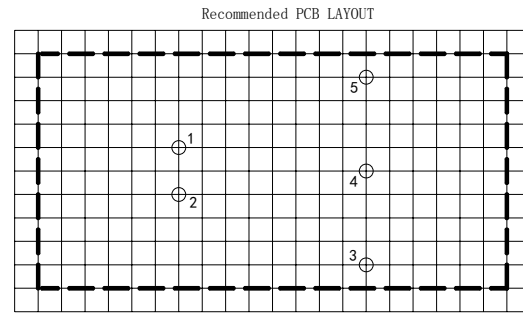
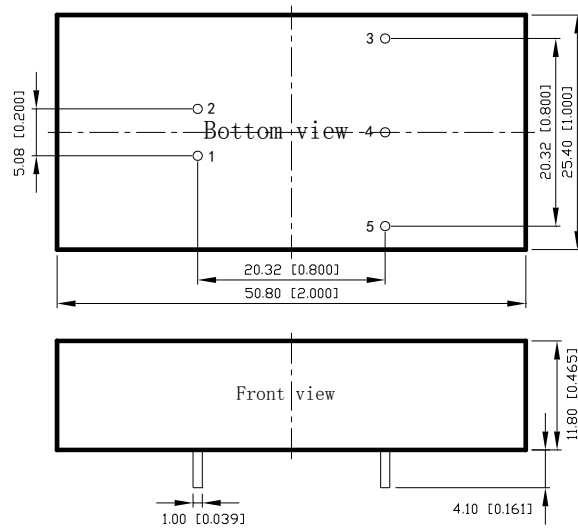
● **PRODUCT PARAMETERS**

Parameter	Conditions / Description	Min	Nom	Max	Unit	
Voltage accuracy	10%-100%Io	-	±1	±3	%	
Load regulation	10%-100%Io	-	±0.5	±1	%	
Line regulation	100%Io, input votagel range	-	±0.2	±0.5	%	
Ripple & Noise	20MHz BW	5Vo	-	50	-	mVp-p
		Other output	-	100	-	
Switching frequency	Nominal input voltage, 100%Io	-	300	-	kHz	
SCP	Short circuit protection	Continuous, self-recovery				
Temperature coefficient	Nominal input voltage, 100%Io	-	0.02	-	%/°C	
Operating temperature		-40	-	+85	°C	
Storage temperature		-40	-	+125	°C	
Storage humidity	No condensing	-	-	95	%RH	
Cooling method		Natural air cooling				
Insulation voltage		1500	-	-	VDC	
Insulation resistance	Input-output, 500VDC, 25°C, 70%RH	1000	-	-	MOhms	
MTBF	MIL-HDBK-217F@25°C	100	-	-	KHours	
Case material		aluminum				
Weight		-	25	-	g	

● **DERATING CURVE**



● DIMENSIONS AND PIN ASSIGNMENT



Note1: Grid is 2.54mm*2.54mm
 Note2: Hole diameter is advised 1.5mm

Pin	1	2	3	4	5
WRB	GND	V _{in}	+V _o	No Pin	0V
WRA	GND	V _{in}	+V _o	0V	-V _o

Unit: mm[inch]
 Pin diameter tolerance: $\pm 0.10[\pm 0.004]$
 General tolerance: $\pm 0.50[\pm 0.020]$

● NOTES

1. Unless otherwise specified, data in this specification is tested with nominal input voltage, rated output load, and $T_a=25^\circ\text{C}$, humidity<75%RH.
2. All data testing methods are based on Guangzhou NengDa company standards.
3. Specification of the product may be subject to change without prior notice.
4. All right reserved by Guangzhou NengDa Power Supply Technology Co., Ltd.