

## 20~60W DC-DC Non-isolated Single Output Converter

## NID60 series



## Features :

- Economical open frame design
- Wide input range
- High efficiency up to 97%
- Built-in remote ON / OFF control
- Compact size 2.0"×1.024"× 0.421"(SIP package)
- Cooling by free air convection
- Protections: Short circuit / Overload / Over voltage
- 100% burn-in test
- Low cost / High reliability

## SPECIFICATION

ORDER NO.		NID60S24-05	NID60S24-12	NID60S24-15	NID60S48-24	
DC VOLTAGE		5V	12V	15V	24V	
OUTPUT	CURRENT RANGE		0~4A	0 ~ 4A	0 ~ 4A	0 ~ 2.5A
	RATED POWER		20W	48W	60W	60W
	RIPPLE & NOISE (max.) Note.2		100mVp-p	120mVp-p	150mVp-p	200mVp-p
			±0.5%			
	LOAD REGULATION Note.4		±0.5%			
	VOLTAGE ACCURACY		±2.0%			
	SWITCHING FREQUENCY (Typ.)		250KHz			
	EXTERNAL CAPACITANCE Note.5					
	VOLTAGE RANGE		20 ~ 53VDC	20 ~ 53VDC	20 ~ 53VDC	
INPUT	NORMAL VOLTAGE		24VDC (or 48VDC)	24VDC (or 48VDC)	24VDC (or 48VDC)	48VDC
	EFFICIENCY (Typ.)		90%	96%	97%	95%
	DC CURRENT	Full load	940mA	2120mA	2590mA	1320mA
		No load	20mA	30mA	30mA	50mA
	PROTECTION		Fuse recommended (5A)			
	EXTERNAL CAPACITANCE Note.5					
PROTECTION	OVERLOAD (Typ.)		120 ~ 220% rated output power			
			Protection type : Hiccup mode, recovers automatically after fault condition is removed			
			All output equipped with short circuit			
			Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE		Protection type : Shut off o/p voltage, clamp by TVS diode			
ENVIRONMENT	WORKING TEMP.		-25 ~ +65℃ (Refer to output load derating curve)			
			20% ~ 85% RH non-condensing			
	STORAGE TEMP., HUMIDITY		-25 ~ +105°C, 10 ~ 85% RH			
	TEMP. COEFFICIENT		±0.03% / ℃ (0~50℃)			
	VIBRATION		10~500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes			
OTHERS	REMOTE CONTROL		Power on : 3.3VDC < R.C ~ com < 12VDC or open circuit ; power off : R.C ~ com < 0.4VDC or short circuit (PIN5,6 & PIN11)			
	DIMENSION		50.8*26*10.7mm or 2.0"*1.024"*0.421" inch (L*W*H)			
01112110	WEIGHT		15g			
	WEIGHT		159			
Mechanical Specification				Pin Configuration	Derating	gCurve
			Unit:mm(inch)			
			10.7[0.421]max.	PinNo. Output		
	50.8 [2]		8 [0.315]	1,2,3,4 +Vout		
42]				5,6 Com	100	<b></b>
3.6+1/-0 [0.142]				7,8 +Vin	(%) 80- OVD (%) - 50-	N
+1/-0			SIDE 1057	9,10 N.C.	AD	
ຕ <u>ຼີ 123</u>			11 8	11 R.C.	<b>9</b> 50	
<u>i  </u>						
10.16 [0			<u>- []:3[0.051]</u> <u>56[0.22]</u> 54[0.1]			
			-25 0 25 5060 65 100			
			Та (°С)			
						ια ( <i>C</i> )
NOTE	<ul> <li>1.All parameters are specified at normal input, rated load, 25°C 70% RH Ambient.</li> <li>2.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 uf &amp; 47 uf capacitor.</li> </ul>					
	3.Line regulation i	is measured	d from low line to high line at rated load.			
			ed from 10% to 100% rated load. end to parallel with 22uF/100V capacitor and output terminal recommend to parallel with 100uF/25V capacitor.			
	5. The input termin	nai recomm	end to parallel with 220F/100	ov capacitor and output termina	a recommend to parallel with 1	IUUUF/20V Capacitor.

File Name:NID60-SPEC 2009-04-30