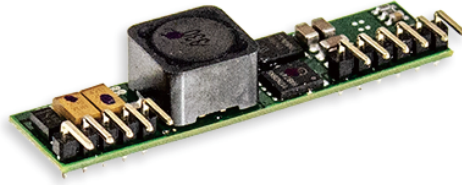




# 35W DC-DC Non-Isolated Regulated Converter

# NID35 series



### ■ Features :

- Economical open frame design
- Wide input range
- High efficiency up to 96%
- Remote ON / OFF control
- Compact size 2.0"x0.512"x 0.433"(SIP package)
- Protections: Short circuit / Overload / Over voltage
- -30~+85°C wide working temperature
- Cooling by free air convection
- Comply to EN55032 ClassA without additional components
- Trimming output (optional)
- 3 years warranty

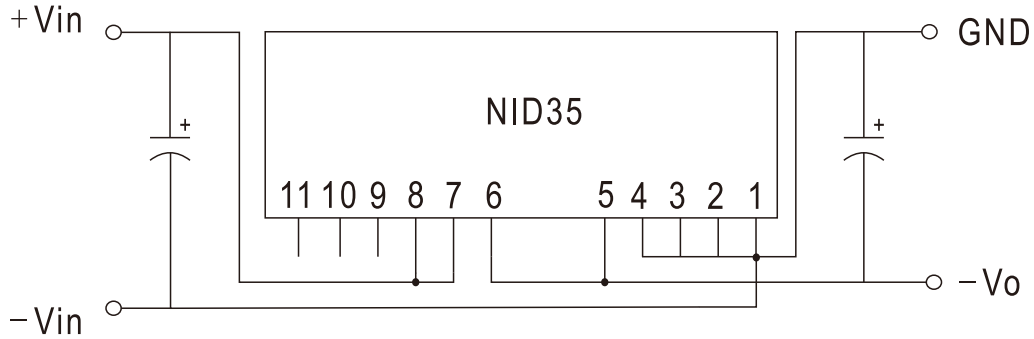


### SPECIFICATION

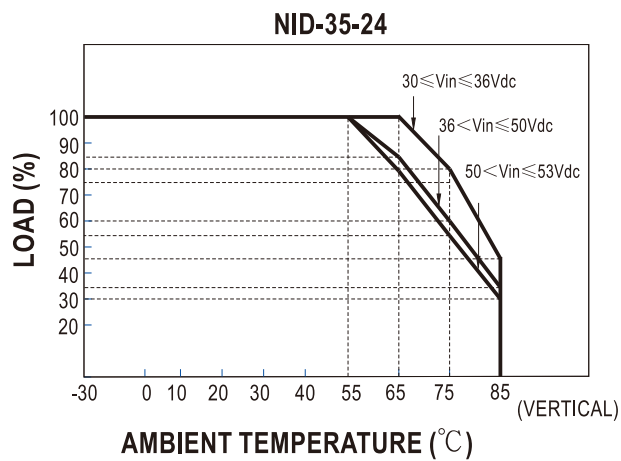
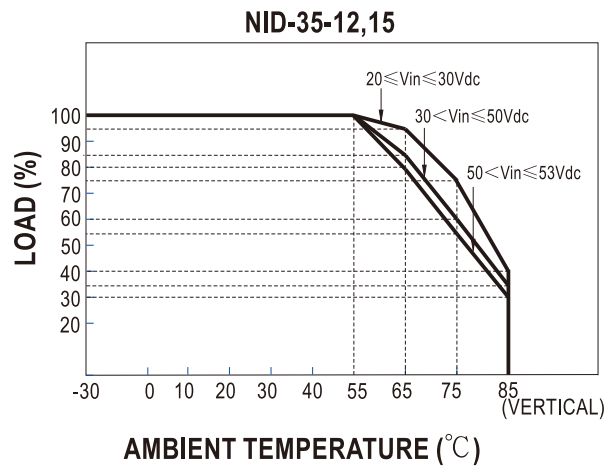
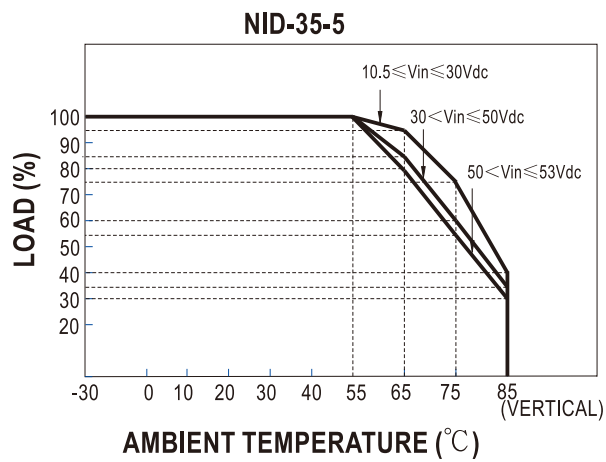
ORDER NO.		NID35-5	NID35-12	NID35-15	NID35-24	
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	
	CURRENT RANGE	0 ~ 3.5A	0 ~ 2.9A	0 ~ 2.4A	0 ~ 1.5A	
	RATED POWER	17.5W	34.8W	36W	36W	
	RIPPLE & NOISE (max.) Note.2	100mVp-p	120mVp-p	150mVp-p	200mVp-p	
	LINE REGULATION Note.3	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION Note.4	±0.5%	±0.5%	±0.5%	±0.5%	
	VOLTAGE TOLERANCE	±2.0%	±2.0%	±2.0%	±2.0%	
	SWITCHING FREQUENCY (Typ.)	200KHz				
INPUT	EXTERNAL CAPACITANCE LOAD (max.)	100uF / 16V low ESR	68uf/25V low ESR	47uf/50V low ESR	47uf/50V low ESR	
	VOLTAGE RANGE	10.5 ~ 53VDC	20 ~ 53VDC	20 ~ 53VDC	30 ~ 53VDC	
	NORMAL VOLTAGE	24VDC (or 12VDC or 48VDC)	24VDC (or 48VDC)	24VDC (or 48VDC)	48VDC	
	EFFICIENCY (Typ.)	24Vin	93% (12/24VDC)	95%	96%	-----
		48Vin	89%	93%	94%	95%
	DC CURRENT	Full load	1700mA/12VDC	1580mA/24VDC	1620mA/24VDC	840mA/48VDC
		No load	30mA	30mA	30mA	50mA
	PROTECTION	Fuse recommended (3A)				
PROTECTION	OVERLOAD (Typ.)	120 ~ 250% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	6.4 ~ 7.5V	15.6~ 18V	17.5~ 21V	28~ 33V	
	SHORT CIRCUIT	All output equipped with short circuit Protection type : Hiccup mode, recovers automatically after fault condition is removed				
FUNCTION	REMOTE CONTROL	Power on : 1.2VDC < R,C ~ com < 12VDC or open circuit ; power off : R.C ~ com < 0.4VDC or short circuit (PIN5,6 & PIN11)				
ENVIRONMENT	SAFETY STANDARDS	EAC TP TC 004 approved				
	WORKING TEMP.	-30 ~ +85°C (Refer to "Derating Curve")				
	WORKING HUMIDITY	20% ~ 85% RH non-condensing				
	STORAGE TEMP.	-30 ~ +105°C				
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 55°C)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min, each along X, Y, Z axes				
SAFETY & EMC	SAFETY STANDARD	EN62368-1(LVD)				
	EMC EMISSION	Parameter	Standard	Test Level / Note		
		Conducted	EN55032	Class A without external components, Class B with external components		
		Radiated	EN55032	Class A without external components, Class B with external components		
	EMC IMMUNITY	Parameter	Standard	Test Level / Note		
		Radiated	EN61000-4-3	Level 2, 3V/m ; criteria A		
		EFT / Burst	EN61000-4-4	Level 2, 1KV ; criteria A		
		Surge	EN61000-4-5	Level 2, 1KV/Line-Line, criteria A		
Conducted		EN61000-4-6	Level 2, 3V ; criteria A			
OTHERS	DIMENSION	50.8*13*11mm or 2.0**0.512**0.433" inch (L*W*H)				
	WEIGHT	9g;440psc/4.96Kg/0.97CUFT				
NOTE	1. All parameters are specified at normal input, rated load, 25°C 70% RH Ambient. 2. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor. 3. Line regulation is measured from low line to high line at rated load. 4. Load regulation is measured from 10% to 100% rated load.					

■ Connection diagram to obtain negative output voltage

Note: input voltage must be < 30VDC.

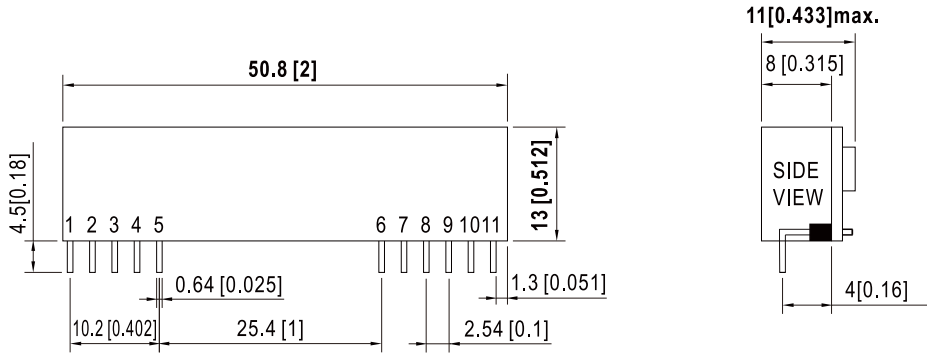


■ Derating Curve



### Mechanical Specification

Unit:mm(inch)

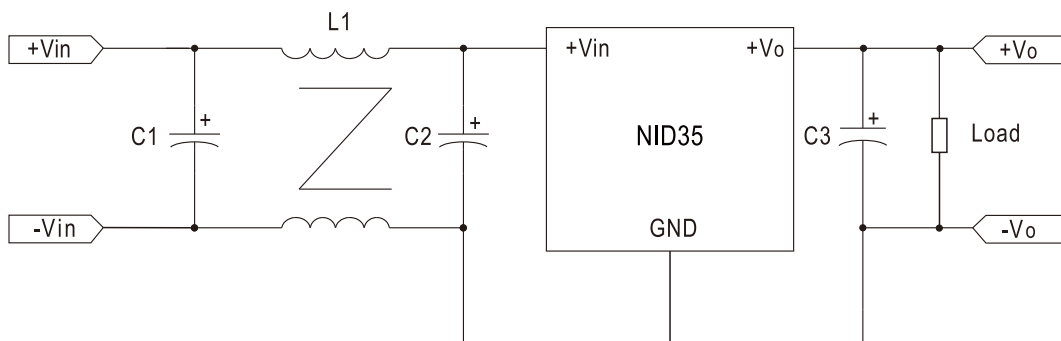


### Pin Configuration

Pin No.	Pin_Out
1,2,3,4	+Vout
5,6	Com
7,8	+Vin
9	N.C.
10	Trim(optional)
11	R.C.

### EMC Suggestion Circuit

※Comply to EN55032 Class A without additional componenets ,required external componenets to meet Class B emisson are as below:



C1/C2	L1	C3
120 $\mu$ F/63V	15 $\mu$ H(NiZn)	22 $\mu$ F/35V