



65W Open Frame type Non-Isolation DC to Dc power supply > NID65



■ Features :

- Economical open frame design
- Wide input range
- High efficiency up to 97%
- Remote ON / OFF control
- Compact size 2.0"x1.024"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

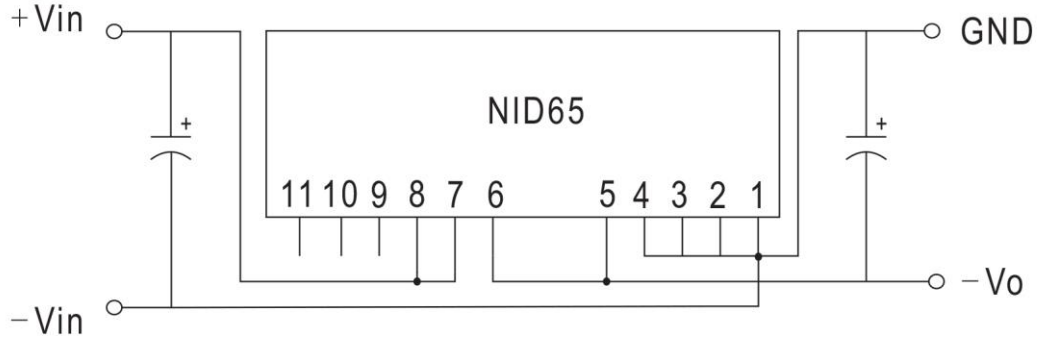
| ORDER NO. | | NID65-5 | NID65-12 | NID65-15 | NID65-24 | |
|--------------|---|--|--------------------------|---|------------------|--------------|
| OUTPUT | DC VOLTAGE | 5V | 12V | 15V | 24V | |
| | CURRENT RANGE | 0 ~ 6.5A | 0 ~ 4.9A | 0 ~ 4.3A | 0 ~ 2.7A | |
| | RATED POWER | 32.5W | 58.8W | 64.5W | 64.8W | |
| | 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 | | | | |
| | EXTERNAL CAPACITANCE LOAD (max.) | 100uF / 16V low ESR | 68uf/25V low ESR | 47uf/50V low ESR | 47uf/50V low ESR | |
| INPUT | 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) | 96% | 97% | ----- |
| | | 48Vin | 92% | 95% | 95% | 96% |
| | DC CURRENT | Full load | 3200mA/12VDC | 2700mA/24VDC | 3000mA/24VDC | 1500mA/48VDC |
| | | No load | 20mA | 30mA | 30mA | 50mA |
| PROTECTION | Fuse recommended (5A) | | | | | |
| 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 | | |
| | EMC IMMUNITY | Radiated | EN55032 | Class A without external components, Class B with external components | | |
| | | 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*26*11mm or 2.0**1.024**0.433" inch (L*W*H) | | | | |
| | WEIGHT | 19g;280psc/6.32Kg/0.94CUFT | | | | |
| 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. | | | | | |



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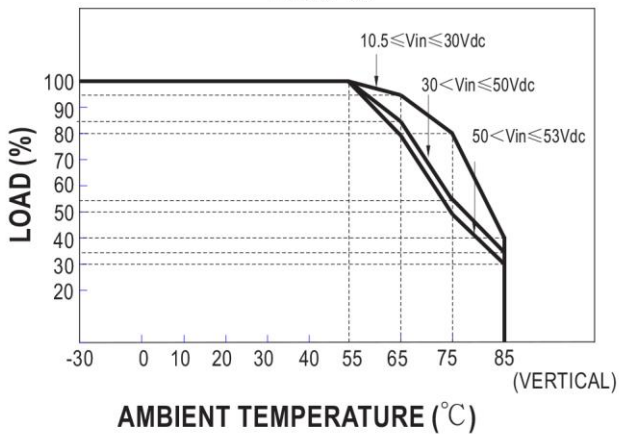
■ **Connection diagram to obtain negative output voltage**

Note: input voltage must be < 30VDC.

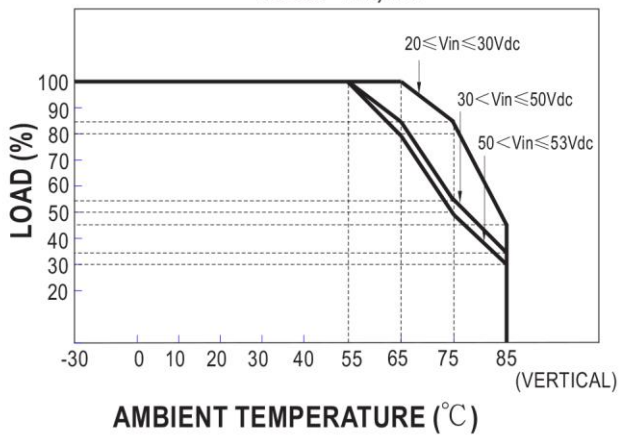


■ **Derating Curve**

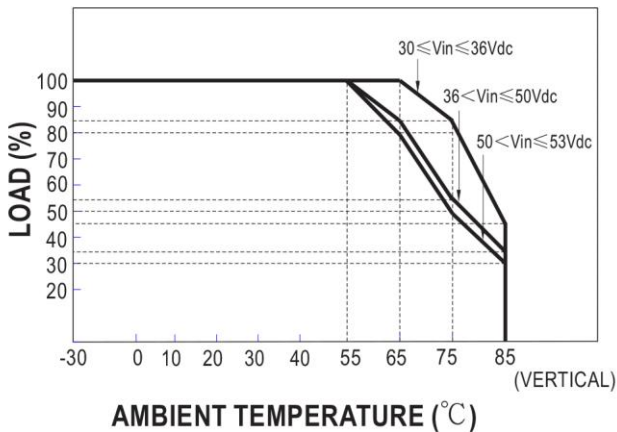
NID65-5V



NID65-12V,15V



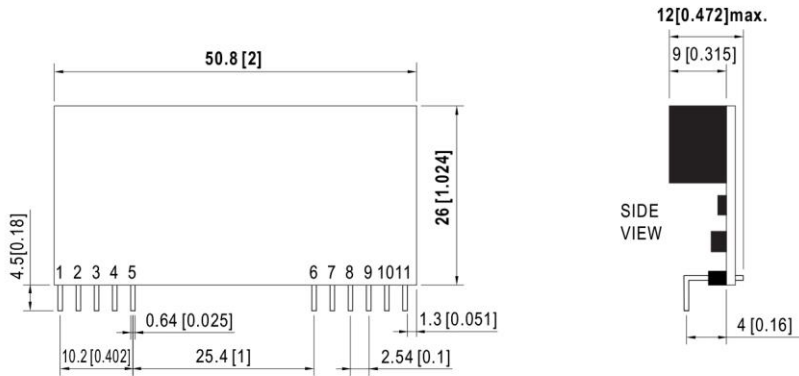
NID65-24V



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Mechanical Specification

Unit:mm(inch)

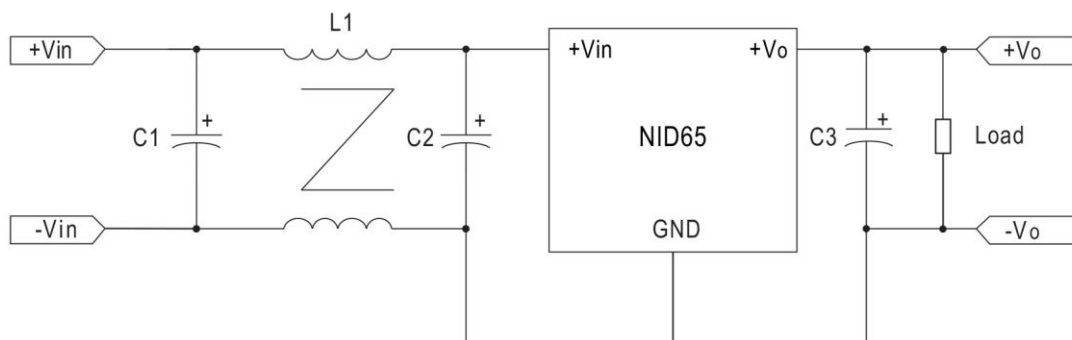


Pin Configuration

| 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 emissision are as below:



| C1/C2 | L1 | C3 |
|-----------------|------------------|----------------|
| 120 μ F/63V | 15 μ H(NiZn) | 22 μ F/35V |