



## ■ Features :

- Economical open frame design
- Wide input range
- High efficiency up to 97%
- Remote ON / OFF control
- Compact size 2.0"×1.024"×0.433"(SIP package)
- Protections: Short circuit / Overload / Over voltage
- -30~+85°C wide working temperature
- Cooling by free air convection
- Comply to BS EN/EN55032 ClassA without additional components
- Trimming output (optional)
- 3 years warranty

## ■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

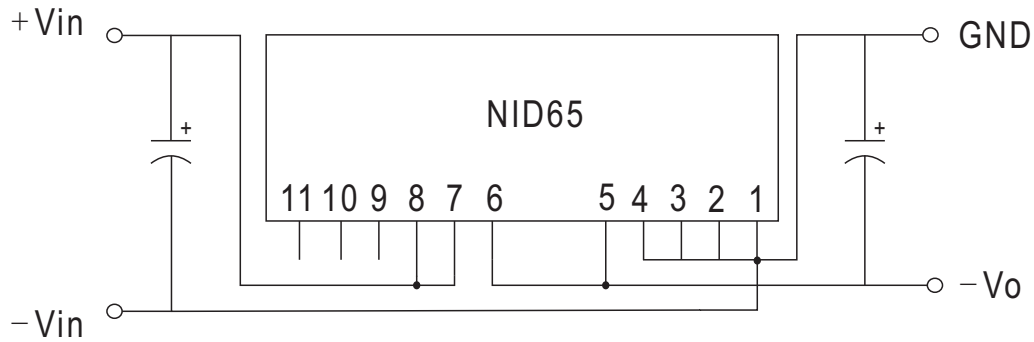
## SPECIFICATION



| 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.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 100mVp-p                                                                                                                 |                  | 120mVp-p          |                  | 150mVp-p                                                             |                  | 200mVp-p     |  |
|                                                                                        | LINE REGULATION <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       | ±0.5%                                                                                                                    |                  | ±0.5%             |                  | ±0.5%                                                                |                  | ±0.5%        |  |
|                                                                                        | LOAD REGULATION <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       | ±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.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 24V <sub>in</sub>     | 93% (12/24VDC)                                                                                                           |                  | 96%               |                  | 97%                                                                  |                  | -----        |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 48V <sub>in</sub>     | 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      |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | Protection type : Shut off o/p voltage, clamp by TVS diode                                                               |                  |                   |                  |                                                                      |                  |              |  |
|                                                                                        | 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℃ (Refer to "Derating Curve")                                                                                   |                  |                   |                  |                                                                      |                  |              |  |
|                                                                                        | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       | 20% ~ 85% RH non-condensing                                                                                              |                  |                   |                  |                                                                      |                  |              |  |
|                                                                                        | STORAGE TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       | -30 ~ +105℃                                                                                                              |                  |                   |                  |                                                                      |                  |              |  |
|                                                                                        | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       | ±0.03% / ℃ (0 ~ 55℃)                                                                                                     |                  |                   |                  |                                                                      |                  |              |  |
|                                                                                        | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       | 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes                                                 |                  |                   |                  |                                                                      |                  |              |  |
| SAFETY & EMC                                                                           | SAFETY STANDARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | BS EN/EN62368-1(LVD)                                                                                                     |                  |                   |                  |                                                                      |                  |              |  |
|                                                                                        | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       | Parameter                                                                                                                |                  | Standard          |                  | Test Level / Note                                                    |                  |              |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | Conducted                                                                                                                |                  | BS EN/EN55032     |                  | Class A without external components,Class B with external components |                  |              |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | Radiated                                                                                                                 |                  | BS EN/EN55032     |                  | Class A without external components,Class B with external components |                  |              |  |
|                                                                                        | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       | BS EN/EN55035                                                                                                            |                  |                   |                  |                                                                      |                  |              |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | Parameter                                                                                                                |                  | Standard          |                  | Test Level / Note                                                    |                  |              |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | Radiated                                                                                                                 |                  | BS EN/EN61000-4-3 |                  | Level 2, 3V/m ; criteria A                                           |                  |              |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | EFT / Burst                                                                                                              |                  | BS EN/EN61000-4-4 |                  | Level 2, 1KV ; criteria A                                            |                  |              |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | Surge                                                                                                                    |                  | BS EN/EN61000-4-5 |                  | Level 2, 1KV/Line-Line,criteria A                                    |                  |              |  |
|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | Conducted                                                                                                                |                  | BS EN/EN61000-4-6 |                  | Level 2, 3V ; criteria A                                             |                  |              |  |
| OTHERS                                                                                 | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       | 16602.6K hrs min.    Telcordia SR-332 (Bellcore) ; 890.7K hrs min.    MIL-HDBK-217F (25℃)                                |                  |                   |                  |                                                                      |                  |              |  |
|                                                                                        | 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℃ 70% RH Ambient.<br>2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uF & 47uF capacitor.<br>3.Line regulation is measured from low line to high line at rated load.<br>4.Load regulation is measured from 10% to 100% rated load.<br>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a> |                       |                                                                                                                          |                  |                   |                  |                                                                      |                  |              |  |

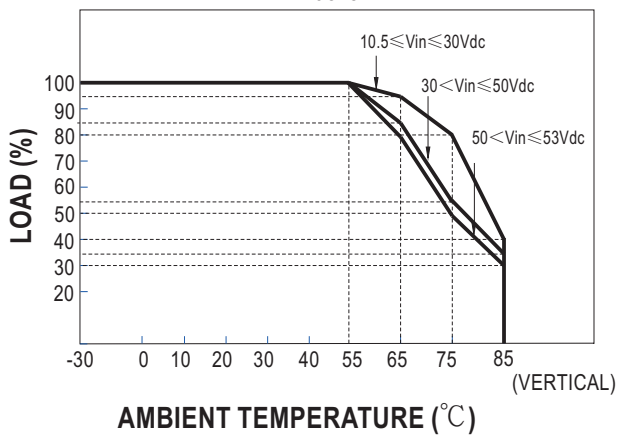
## ■ Connection diagram to obtain negative output voltage

Note: input voltage must be  $< 30\text{VDC}$ .

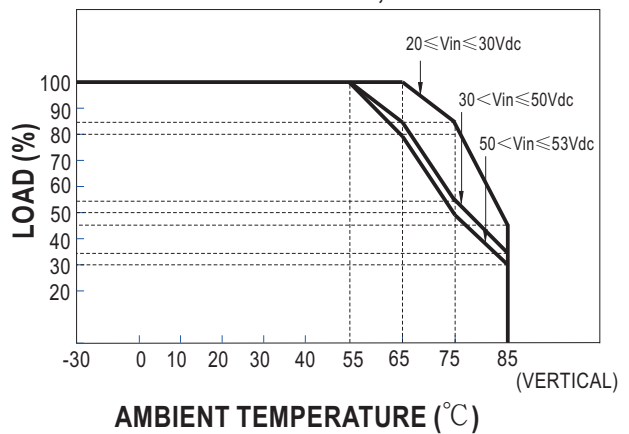


## ■ Derating Curve

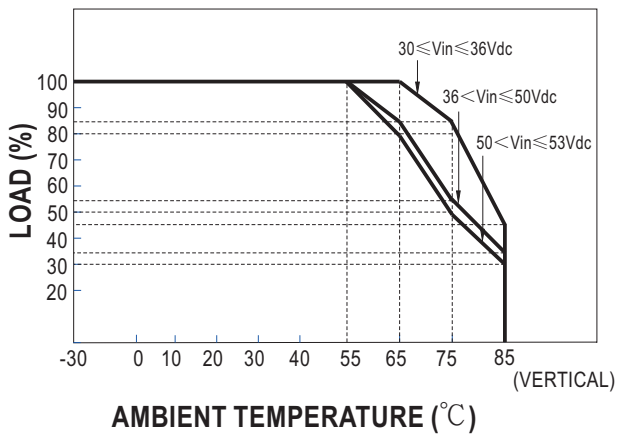
NID65-5V



NID65-12V,15V

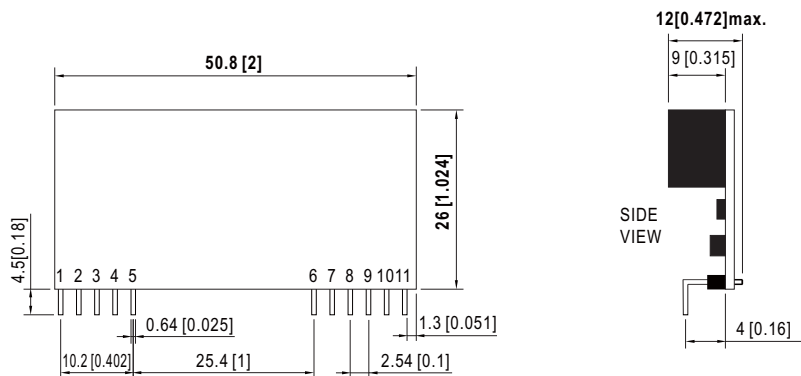


NID65-24V



## Mechanical Specification

Unit:mm(inch)

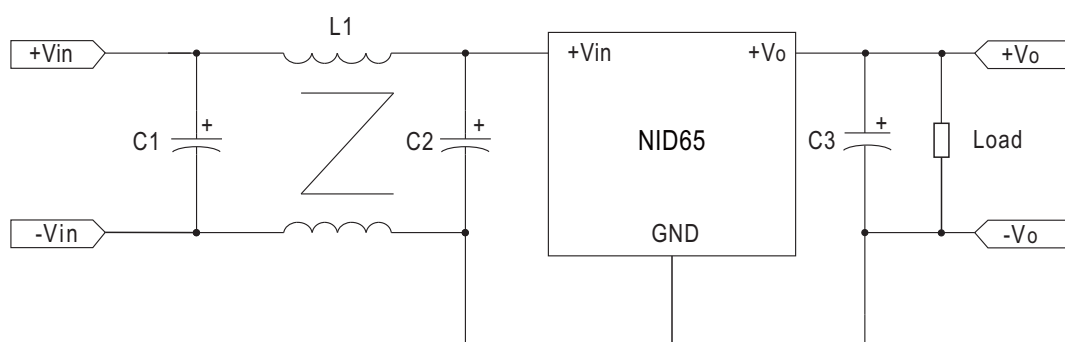


## Pin Configuration

| 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 emissssion are as below:



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