



## ■ Features :

- AC input range selectable by switch
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- 2 years warranty

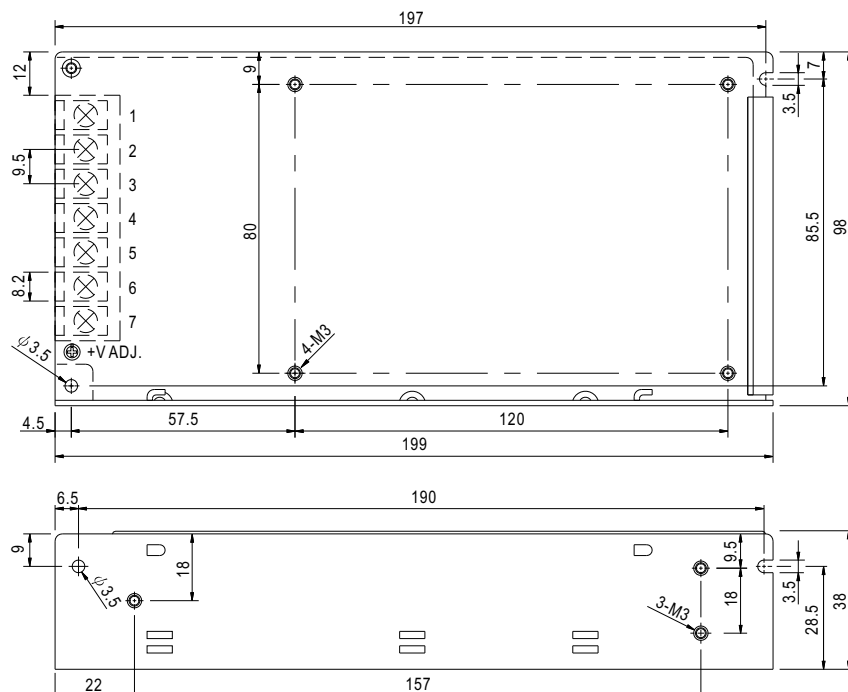


## SPECIFICATION

| MODEL                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NED-100A                                                                                                                |                          | NED-100B                         |            | NED-100C          |              | NED-100D          |         |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------|------------|-------------------|--------------|-------------------|---------|
| OUTPUT                   | OUTPUT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CH1                                                                                                                     | CH2                      | CH1                              | CH2        | CH1               | CH2          | CH1               | CH2     |
|                          | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5V                                                                                                                      | 12V                      | 5V                               | 24V        | 12V               | 5V           | 24V               | 5V      |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 10A                                                                                                                     | 4.2A                     | 8A                               | 2.5A       | 7A                | 3A           | 3.5A              | 3A      |
|                          | CURRENT RANGE      Note.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2 ~ 10A                                                                                                                 | 0.7 ~ 7.0A               | 1 ~ 10A                          | 0.3 ~ 3.5A | 0 ~ 8A            | 0 ~ 3A       | 0 ~ 4A            | 0 ~ 3A  |
|                          | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 100.4W                                                                                                                  |                          | 100W                             |            | 99W               |              | 99W               |         |
|                          | RIPPLE & NOISE (max.)    Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 80mVp-p                                                                                                                 | 120mVp-p                 | 80mVp-p                          | 200mVp-p   | 120mVp-p          | 80mVp-p      | 120mVp-p          | 80mVp-p |
|                          | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CH1: 4.75 ~ 5.5V                                                                                                        |                          | CH1: 4.75 ~ 5.5V                 |            | CH1: 11.4 ~ 13.2V |              | CH1: 22.8 ~ 26.4V |         |
|                          | VOLTAGE TOLERANCE    Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±2.0%                                                                                                                   | ±10%                     | ±2.0%                            | ±8.0%      | ±2.0%             | ±3.0%        | ±2.0%             | ±3.0%   |
|                          | LINE REGULATION      Note.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±0.5%                                                                                                                   | ±0.5%                    | ±0.5%                            | ±0.5%      | ±0.5%             | ±0.5%        | ±0.5%             | ±0.5%   |
|                          | LOAD REGULATION      Note.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±1.0%                                                                                                                   | ±5.0%                    | ±1.0%                            | ±4.0%      | ±1.0%             | ±2.0%        | ±1.0%             | ±2.0%   |
|                          | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2000ms, 30ms/230VAC                                                                                                     |                          | 1200ms, 30ms/115VAC at full load |            |                   |              |                   |         |
| HOLD TIME (Typ.)         | 25ms/230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                         | 20ms/115VAC at full load |                                  |            |                   |              |                   |         |
| INPUT                    | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 88 ~ 132VAC / 176 ~ 264VAC selected by switch                                                                           |                          |                                  |            |                   | 248 ~ 373VDC |                   |         |
|                          | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 47 ~ 63Hz                                                                                                               |                          |                                  |            |                   |              |                   |         |
|                          | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 80%                                                                                                                     |                          | 82%                              |            | 80%               |              | 82%               |         |
|                          | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2A/115VAC                                                                                                               |                          | 1.2A/230VAC                      |            |                   |              |                   |         |
|                          | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | COLD START 45A                                                                                                          |                          |                                  |            |                   |              |                   |         |
|                          | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <2mA / 240VAC                                                                                                           |                          |                                  |            |                   |              |                   |         |
| PROTECTION               | OVER LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 110 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                          |                                  |            |                   |              |                   |         |
|                          | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CH1: 5.75 ~ 6.75V                                                                                                       |                          | CH2: 5.75 ~ 6.75V                |            | CH1: 13.8 ~ 15.8V |              | CH2: 27.6 ~ 32.4V |         |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Protection type : Hiccup mode, recovers automatically after fault condition is removed                                  |                          |                                  |            |                   |              |                   |         |
| ENVIRONMENT              | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -20 ~ +60℃ (Refer to output load derating curve)                                                                        |                          |                                  |            |                   |              |                   |         |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 20 ~ 90% RH non-condensing                                                                                              |                          |                                  |            |                   |              |                   |         |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -40 ~ +85℃, 10 ~ 95% RH                                                                                                 |                          |                                  |            |                   |              |                   |         |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±0.03%/℃ (0 ~ 50℃) on Ch1 output                                                                                        |                          |                                  |            |                   |              |                   |         |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                 |                          |                                  |            |                   |              |                   |         |
| SAFETY & EMC<br>(Note 7) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UL60950-1, CB(IEC60950-1) Approved                                                                                      |                          |                                  |            |                   |              |                   |         |
|                          | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | I/P-O/P:3KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC                                                                       |                          |                                  |            |                   |              |                   |         |
|                          | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC                                                                                |                          |                                  |            |                   |              |                   |         |
|                          | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Compliance to EN55022 (CISPR22) Class B                                                                                 |                          |                                  |            |                   |              |                   |         |
|                          | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compliance to EN61000-3-2,-3                                                                                            |                          |                                  |            |                   |              |                   |         |
|                          | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024, EN61000-6-1, light industry level, criteria A          |                          |                                  |            |                   |              |                   |         |
| OTHERS                   | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 320.7K hrs min.    MIL-HDBK-217F (25℃)                                                                                  |                          |                                  |            |                   |              |                   |         |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 199*98*38mm (L*W*H)                                                                                                     |                          |                                  |            |                   |              |                   |         |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.55Kg; 30pcs/17.5Kg/0.97CUFT                                                                                           |                          |                                  |            |                   |              |                   |         |
| NOTE                     | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Line regulation is measured from low line to high line at rated load.<br>5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load.<br>6. Each output can work within current range. But total output power can't exceed rated output power.<br>7. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. |                                                                                                                         |                          |                                  |            |                   |              |                   |         |

## ■ Mechanical Specification

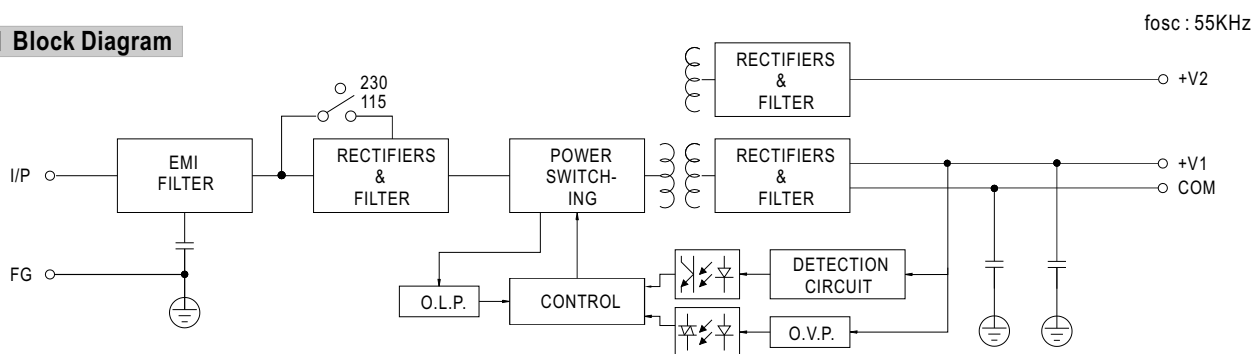
Case No. 902    Unit:mm



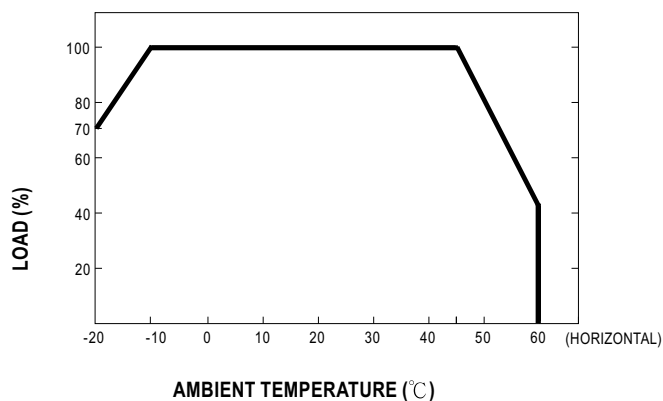
### Terminal Pin No. Assignment

| Pin No. | Assignment       | Pin No. | Assignment    |
|---------|------------------|---------|---------------|
| 1       | AC/L             | 5       | DC OUTPUT +V2 |
| 2       | AC/N             | 4,6     | DC OUTPUT COM |
| 3       | EG $\frac{1}{2}$ | 7       | DC OUTPUT +V1 |

### ■ Block Diagram



### Derating Curve



### ■ Output Derating VS Input Voltage

