



#### ■ Features :

- AC input 180~264VAC
- Protections: Short circuit / Overload / Over voltage/ Over temperature
- Leakage current<1mA
- Cooling by free air convection
- Low profile:30mm
- Withstand 300vac surge input for 5 second
- LED indicator for power on
- Conformal coating
- Low cost,high reliability
- 100% full load burn-in test
- 2 years warranty

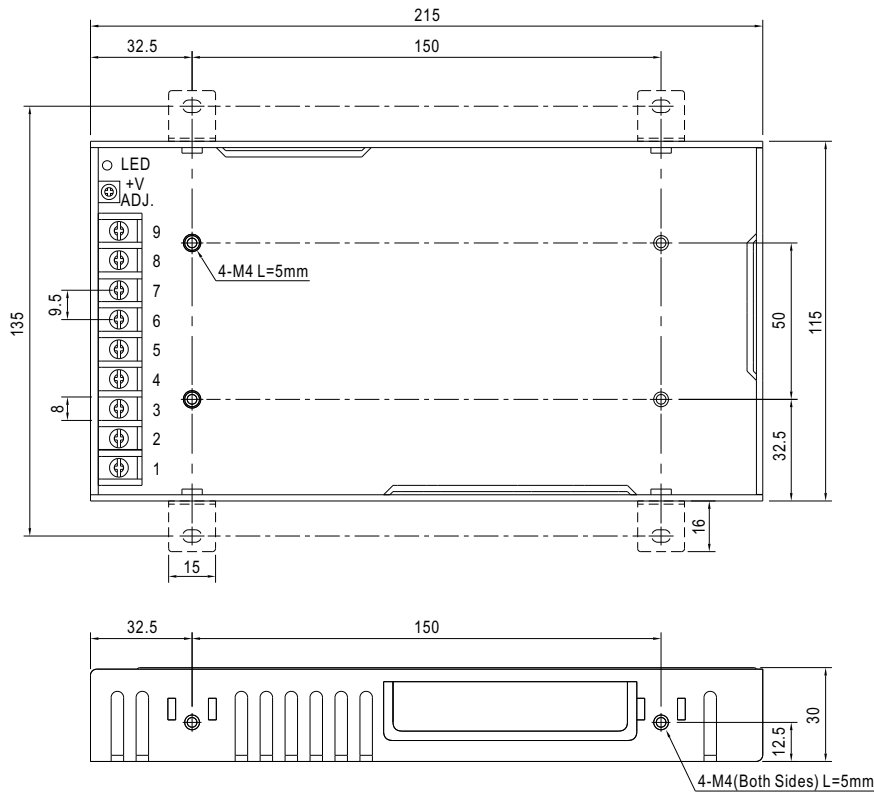


#### SPECIFICATION

| MODEL               |                                                                                                                                                                                                                                                                                                                                                  | NEL-200-2.8                                                                                                             | NEL-200-4.2 | NEL-200-5   |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| OUTPUT              | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                       | 2.8V                                                                                                                    | 4.2V        | 5V          |
|                     | RATED CURRENT                                                                                                                                                                                                                                                                                                                                    | 40A                                                                                                                     | 40A         | 40A         |
|                     | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                    | 0 ~ 40A                                                                                                                 | 0 ~ 40A     | 0 ~ 40A     |
|                     | RATED POWER                                                                                                                                                                                                                                                                                                                                      | 112W                                                                                                                    | 168W        | 200W        |
|                     | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                      | 150mVp-p                                                                                                                | 150mVp-p    | 150mVp-p    |
|                     | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                               | 2.5 ~ 3V                                                                                                                | 3.6 ~ 4.4V  | 4.5 ~ 5.5V  |
|                     | VOLTAGE TOLERANCE <small>Note.3</small>                                                                                                                                                                                                                                                                                                          | +3%,-4.5%                                                                                                               | +3%,-4.5%   | ±3.0%       |
|                     | LINE REGULATION                                                                                                                                                                                                                                                                                                                                  | ±0.5%                                                                                                                   | ±0.5%       | ±0.5%       |
|                     | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                  | ±2.5%                                                                                                                   | ±2.5%       | ±2.0%       |
|                     | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                 | 2500ms, 50ms/230VAC                                                                                                     |             |             |
| HOLD UP TIME (Typ.) | 20ms/230VAC                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |             |             |
| INPUT               | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                    | 180 ~ 264VAC    254 ~ 370VDC                                                                                            |             |             |
|                     | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                  | 47 ~ 63Hz                                                                                                               |             |             |
|                     | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                | 85%                                                                                                                     | 87%         | 87%         |
|                     | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                | 1.5A/230VAC                                                                                                             | 2A/230VAC   | 2.5A/230VAC |
|                     | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                            | 70A/230VAC                                                                                                              |             |             |
|                     | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                  | <1mA / 240VAC                                                                                                           |             |             |
| PROTECTION          | OVER LOAD                                                                                                                                                                                                                                                                                                                                        | 105 ~ 140% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |             |             |
|                     | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                     | 3.22 ~ 3.78V                                                                                                            | 4.6 ~ 5.4V  | 5.6 ~ 7V    |
|                     |                                                                                                                                                                                                                                                                                                                                                  | Protection type :Hiccup mode, recovers automatically after fault condition is removed                                   |             |             |
|                     | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                 | Shut down O/P voltage, recovers automatically after temperature goes down                                               |             |             |
| ENVIRONMENT         | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                    | -20 ~ +60℃ (Refer to output load derating curve)                                                                        |             |             |
|                     | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                 | 20 ~ 90% RH non-condensing                                                                                              |             |             |
|                     | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                          | -20 ~ +85℃, 10 ~ 95% RH                                                                                                 |             |             |
|                     | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                | ±0.03%/℃ (0 ~ 50℃ )                                                                                                     |             |             |
|                     | VIBRATION                                                                                                                                                                                                                                                                                                                                        | 10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes                                                            |             |             |
| SAFETY              | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                 | UL60950-1 approved                                                                                                      |             |             |
|                     | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                | I/P-O/P:3KVAC    I/P-FG:2KVAC    O/P-FG:0.5KVAC                                                                         |             |             |
|                     | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                             | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC / 25℃ / 70% RH                                                                 |             |             |
| OTHERS              | MTBF                                                                                                                                                                                                                                                                                                                                             | 235K hrs min.    MIL-HDBK-217F (25℃)                                                                                    |             |             |
|                     | DIMENSION                                                                                                                                                                                                                                                                                                                                        | 215*115*30mm (L*W*H)                                                                                                    |             |             |
|                     | PACKING                                                                                                                                                                                                                                                                                                                                          | 0.75Kg;15pcs/12.3Kg/0.78CUFT                                                                                            |             |             |
| 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. |                                                                                                                         |             |             |

## Mechanical Specification

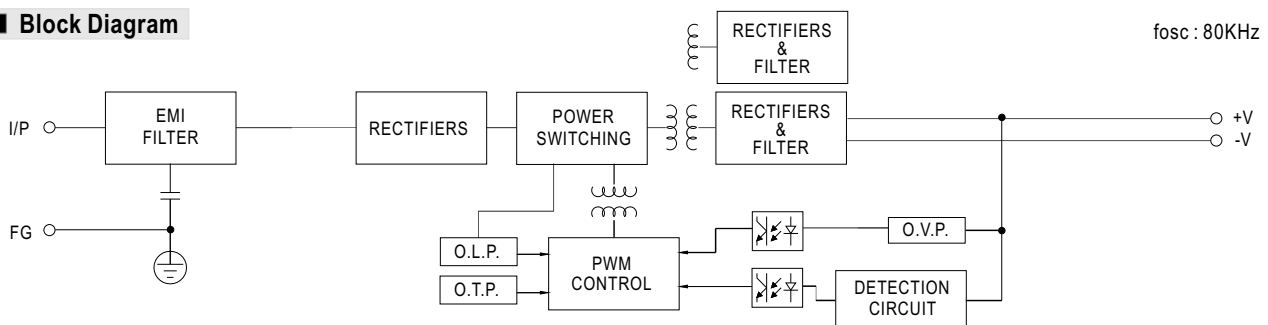
Case No. 231A Unit:mm



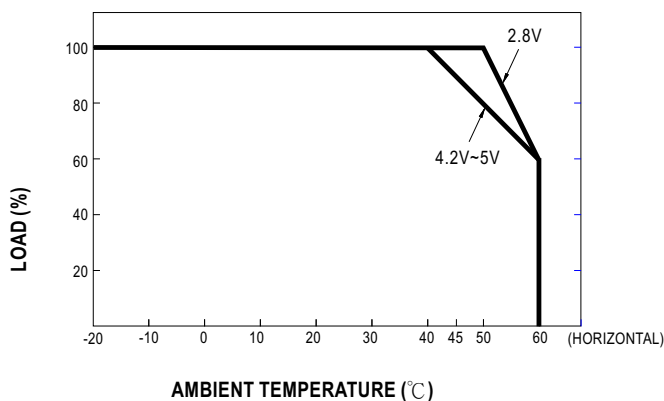
Terminal Pin No. Assignment :

| Pin No. | Assignment | Pin No. | Assignment   |
|---------|------------|---------|--------------|
| 1       | AC/L       | 4~6     | DC OUTPUT -V |
| 2       | AC/N       | 7~9     | DC OUTPUT +V |
| 3       | FG $\perp$ |         |              |

## Block Diagram



## Derating Curve



## Static Characteristics

