

## N2006P DIGITAL MULTI POWER, VOLT & AMP METER

### Operation Manual

**Thank you for purchasing our product !**



It is important to read the Setup Guide before installing or commissioning this instrument as it contains important information relating to safety and EMC.

Please verify the panel cutout dimensions and mount according to instructions.

### SAFETY CONSIDERATIONS

#### Unpacking and Inspection



Your instrument has been carefully tested and inspected prior to shipment. Unpack the instrument and inspect for obvious shipping damage. Please do not attempt to install or operate the unit if damage is found.

This instrument is a panel mount device protected in accordance with Class I of EN 61010. Installation of this instrument should be done by Qualified personnel. In order to ensure safe operation, the following instructions should be followed.

This instrument has no power-on switch; it will be in operation as soon as power is connected. Do not make signal wiring changes or connections when power is applied to the instrument. Make signal connections before power is applied and, if reconnection is required, disconnect the power before such wiring is attempted.



- Do not exceed voltage rating stated on the specifications.
- Always disconnect power before changing signal and power connections.
- Do not use this instrument on a work bench without its case for safety reasons.
- Do not operate this instrument in flammable or explosive atmospheres.
- Do not expose this instrument to rain or moisture.
- Whenever EMC is an issue, always use shielded cables.
- Instrument which will not be installed immediately should be stored in a clean, dry location.

**WARNING:** The use of this instrument in a manner other than specified may impair the protection of the instrument and subject the user to hazard.

**Careful use of the instrument will provide years of reliable service.**



At the end of its life cycle, dispose of this product in accordance with local and national disposal regulations.

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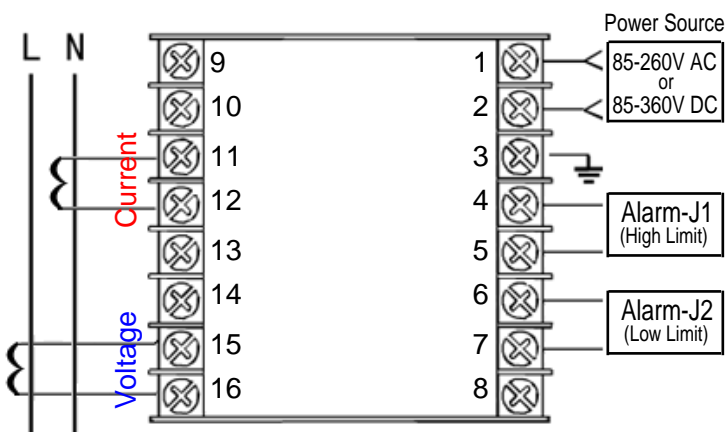
## N2006P MULTI POWER, VOLT & AMP METER The Installation & Wiring Instructions

- Measuring Single-Phase Power, Voltage & Current synchronously
- Automatic Power/Voltage/Current Unit Indication
- Two alarm outputs can perform double-limit alarm/control
- Measuring range display can be discretionarily set if appropriate volt/amp transformer is added.

### Specifications

- 1) Power Supply Voltage: 85-260Vac or 85-360Vdc / 4VA
- 2) Maximum Display : -999 ~ 9999
- 3) Display Type: Power: Blue LED (0.8") ; Voltage: Red LED (0.36") ; Current: Green LED (0.36")
- 4) Frequency: 50Hz or 60Hz
- 5) Measuring Range (1) : Voltage: 0~500Vac ; Current: 0~5A (used directly, transformer not needed)
- 6) Measuring Range (2) : Power: -999MW~9999MW ; Voltage: 0~9999KVac ; Current: 0~9999K5A  
(Pls NOTE: Appropriate voltage/current transformer must be added.)
- 7) Transformation Ratio on Voltage/Current Transformer: 1~9999
- 8) Resolution: 0.5
- 9) Input Impedance: 0.002 ohm
- 10) Relay Contact Output Rated: 220Vac / 3A
- 11) Overrange Display: "EEEE"
- 12) Operating Temperature: 0 to +60° C (32 to 140° F)
- 13) Humidity: 0~95%RH
- 14) Cutout Size: 92 x 92 mm
- 15) Dimensions: 96 x 96 x 82 mm

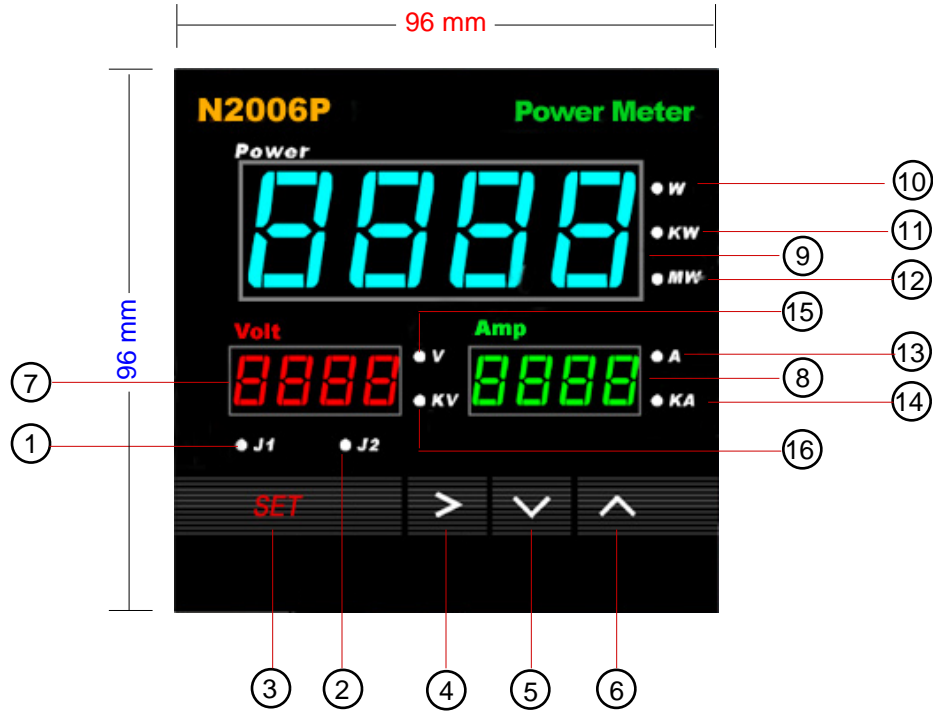
### Wiring Instructions



Please kindly note the following:

- Please connect the Voltage in **PARALELL**.  
( Connector No.15 must be connected to L )
- Please connect the Current in **SERIES**.
- Please just ignore the polarity of the Power Source.
- If the digital power meter is used to measure  $> 5A$  or  $> 500V AC$ , a Current/Voltage Transformer ( $\xi$ ) must be added.

## Name of Parts



|                             |  |
|-----------------------------|--|
| ① Relay J1 Output Lamp      | Lights when output is turned on                              |
| ② Relay J2 Output Lamp      | Lights when output is turned on                              |
| ③ SET Key                   | Used for parameter registration/calling up                   |
| ④ SHIFT Key                 | Used to shift the digit when the setting is changed          |
| ⑤ DOWN Key                  | Used for selecting previous parameter or decreasing numerals |
| ⑥ UP Key                    | Used for selecting next parameter or increasing numerals     |
| ⑦ Voltage Display           | Used to display volts measured                               |
| ⑧ Current Display           | Used to display amps measured                                |
| ⑨ Power Display             | Used to display power/watt measured                          |
| ⑩ ⑪ ⑫ Power Unit Indicators | Used to display power unit measured                          |
| ⑬ ⑭ Current Unit Indicators | Used to display power unit measured                          |
| ⑮ ⑯ Voltage Unit Indicators | Used to display power unit measured                          |

## Parameters Setting Guide

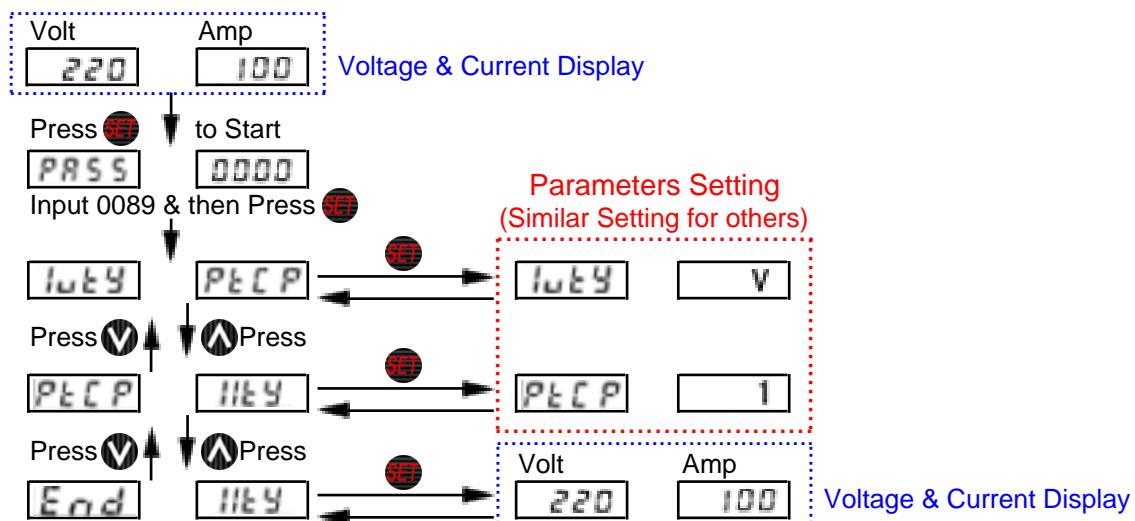
### 1. Parameters Setting for Measuring Range Display

(Log in by inputting password "0089" after pressing set key)

#### (1) Details of Parameters

| Symbol | Description | Setting Range                | Factory Set Value      | Remarks |        |
|--------|-------------|------------------------------|------------------------|---------|--------|
| lvty   | lvty        | Unit of Voltage              | V, KV                  | V       |        |
| PtCP   | PtCP        | Voltage Transformation Ratio | 1~9999                 | 1       |        |
| lity   | lity        | Unit of Current              | A, KA                  | A       |        |
| CtPt   | CtPt        | Current Transformation Ratio | 1~9999                 | 1       |        |
| IPtY   | IPtY        | Unit of Power                | W, KW, MW              | W       |        |
| ld     | ld          | Address                      | 0~260                  | 0       | unused |
| bAud   | BAud        | Baud Rate                    | 1200, 2400, 4800, 9600 | 9600    | unused |
| End    | End         | End                          |                        |         |        |

#### (2) Parameters Setting Procedure (Similar Setting for other Parameters)



Please kindly note:

1. Please use to shift the digit and use or to input digits.
2. Please use & to select parameter.
3. Please use to confirm.
4. After a smaller unit of Power, Voltage or Current has been set, it will automatically changed to next greater unit when the value is greater than 9999 and vise versa.



## Parameters Setting Guide

### 3. Parameters Setting for Current Alarm (Similar to Power Alarm Control Output Setting)

(Log in by inputting password "0037" after pressing set key)

#### (1) Details of Parameters

| Symbol | Description | Setting Range              | Factory Set Value | Remarks |
|--------|-------------|----------------------------|-------------------|---------|
| I-WS   | I-WS        | Current Alarm Type         | no, H, L, HL      | no      |
| I--H   | I--H        | High Alarm Value           | 0~9999            | 9999    |
| IHdl   | IHdl        | High Alarm Deviation Value | 0~9999            | 0       |
| IH-o   | IH-o        | High Alarm Relay           | 0, 1, 2           | 0       |
| I--L   | I--L        | Low Alarm Value            | 0~9999            | 0       |
| ILdl   | ILdl        | Low Alarm Deviation Value  | 0~9999            | 0       |
| IL-o   | IL-o        | Low Alarm Relay            | 0, 1, 2           | 0       |
| End    | End         | End                        |                   |         |

### 4. Parameters Setting for Voltage Alarm (Similar to Power Alarm Control Output Setting)

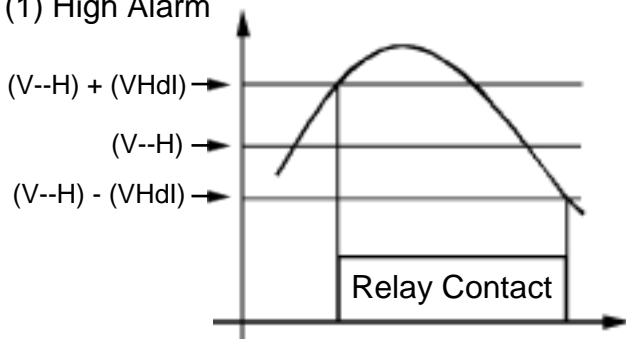
(Log in by inputting password "0038" after pressing set key)

#### (1) Details of Parameters

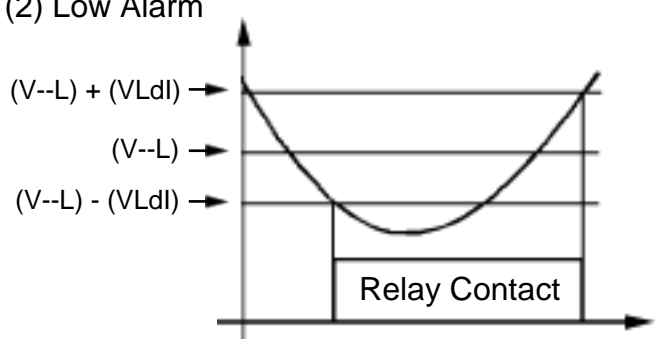
| Symbol | Description | Setting Range              | Factory Set Value | Remarks |
|--------|-------------|----------------------------|-------------------|---------|
| V-WS   | V-WS        | Voltage Alarm Type         | no, H, L, HL      | no      |
| V--H   | V--H        | High Alarm Value           | 0~9999            | 9999    |
| VHdl   | VHdl        | High Alarm Deviation Value | 0~9999            | 0       |
| VH-o   | VH-o        | High Alarm Relay           | 0, 1, 2           | 0       |
| V--L   | V--L        | Low Alarm Value            | 0~9999            | 0       |
| VLdl   | VLdl        | Low Alarm Deviation Value  | 0~9999            | 0       |
| VL-o   | VL-o        | Low Alarm Relay            | 0, 1, 2           | 0       |
| End    | End         | End                        |                   |         |

## Relay Control Output Curves

#### (1) High Alarm



#### (2) Low Alarm



Please consult your licensed electrician/electrical engineer for professional advice before installation.