# NP series analog panel meters

#### **1** Summary

This meter is widely used as direct acting analog indicator electrical measuring instrument, it is used for measuring various electrical parameters, such as voltage, current, power, frequency, power factor, etc. in DC/AC circuit. The advantage of the analog panel meter is, it can show the trend of the measured electrical parameters. It's mainly used in mining enterprises, metallurgy, chemical, electricity, complete equipment and all kinds of electronic control devices. The appearance is simple and elegant.

### 2 General technical specification

| The influence of vibration and i | impact Common Type                                                                                                                                                                                                             |  |  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Installation position            | Applicable vertical installation, ± 5° gradient is allowed, unless others specified                                                                                                                                            |  |  |
| Storage temperature              | -40°C~+70°C                                                                                                                                                                                                                    |  |  |
| Damping time                     | Less than 5s                                                                                                                                                                                                                   |  |  |
| Working condition                | Reference temperature is $23\% \pm 2\%$ , relative temperature is 40~85%, the temperature limit of working con -dition is $-20\%$ -+55\%, relative humidity should be less than 95%, without dust and corrosive gas in the air |  |  |
| Insulating strength              | can stand withstand voltage test with frequency 50Hz sine wave AC 2kV voltage lasting 1min                                                                                                                                     |  |  |
| Insulation resistance            | more than 20MΩ/DC500V                                                                                                                                                                                                          |  |  |

### NP series panel meter





### **3** Main structure and work principle

The models of NP series mounted panel meters are mainly NP48, NP72, NP96.

1.1 NP series square panel meters are electromagnetic type, adopting repulsive construction. The meters are consist of measuring mechanism and indicating device., with casing adopted by flame-retardant ABS engineering plastics, safe measure terminals, high-efficiency connection type, and adopted by printing dial & transparent glass cover. The whole looks beautiful and provides an open view.

### 4 Main technical parameters

| Product Name                  | Specification              | Measuring Range                                                                         | Accuracy Class                                      |  |
|-------------------------------|----------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------|--|
| DC Ammeter                    | NP48-AD、NP72-AD<br>NP96-AD | 50 µ A~20A (direct)<br>20A~10kA/60mV or /75mA(external device                           | ) Class 1.5                                         |  |
| DC Voltmeter                  | NP48-VD、NP72-VD<br>NP96-VD | 5V~750V (direct)<br>450V~450kV/1mA or /5mA(external device)                             | (NP48-VD is Class 2.5                               |  |
| AC Ammeter                    | NP48-A NP72-A<br>NP96-A    | 500mA~100A (direct)<br>99T666为500mA~30A (direct)<br>5A~10kA/5. or /1A (external device) | <=30A Class1.5<br>>30A Class 2.5<br>99T666 Class2.5 |  |
| AC Voltmeter                  | NP48-V NP72-V<br>NP96-V    | 15V~600V (direct)<br>380V~450kV/100V (external device)                                  | Class 1.5<br>NP48-V is Class 2.5                    |  |
| requency Meter                | NP48-F NP72-F<br>NP96-F    | 45~55Hz、45~65Hz、55~65Hz etc.<br>Rated voltage 100V 220V 380V                            | Class 1.0                                           |  |
| Power Meter<br>Varmeter       | NP48-W NP72-W<br>NP96-W    | 100V、220V、380V~380kV/100V<br>5A、5A~10kA/5A (external device)                            | Class 2.5                                           |  |
| 3-phase Power<br>Factor Meter | NP48-PF NP72-PF<br>NP96-PF | 0.5C~1~0.5L<br>100V 5A, 380V 5A                                                         | Class 2.5                                           |  |

## **5** Outline and installation size

