#### **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 impact	Common Type		
Installation position	Applicable vertical installation, ± 5° gradient is allowed, unless others specified		
Storage temperature	-40℃-+70℃		
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	on resistance more than 20MΩ/DC500V		

## NP series panel meter





#### 1 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.

### 2 Main technical parameters

Product Name	Specification	Measuring Range	Accuracy Class
DC Ammeter	NP48-A DC NP72-A DC NP96-A DC	20A~10kA/60mV or /75mA(external device	e) Class 1.5
DC Voltmeter	NP48-V DC NP72-V DC NP96-V DC	5V~750V (direct) 450V~450kV/1mA or /5mA(external device	( NP48-VD is Class 2.5 )
AC Ammeter	NP48-A NP72-A NP96-A	500mA~100A (direct) 99T666 is 500mA~30A (direct) 5A~10kA/5. or /1A (external device)	<=30A Class1.5 >30A Class 2.5 99T666 Class2.5
AC Voltmeter	NP48-V NP72-V NP96-V	15V~600V (direct) 380V~450kV/100V (external device)	Class 1.5 NP48-V is Class 2.5
Frequency Mete	NP48-Hz NP72-Hz NP96-Hz	45~55Hz、45~65Hz、55~65Hz etc. Rated voltage 100V 220V 380V	Class
Power Meter Varmeter NP	NP48-kW/var 72-kW/var NP96-kW/vai	100V、220V、380V~380kV/100V r 5A、5A~10kA/5A (external device)	Class 2.5
3-phase Power Factor Meter	NP48- cosΦ NP72-cosΦ NP96-cosΦ	0.5C~1~0.5L 100V 5A, 380V 5A	Class 2.5

# Analog panel meters

