

# **AC Three-phase Ammeter User Manual**

This manual is applied to the following models:  
LNF33

**JIANGSU SFERE ELECTRIC CO., LTD.**

# 1. Product description

## 1.1 Overview

LNF series digital AC ammeter is applied for measuring three-phase AC current in low voltage power distribution system. The transformation ratio can be programmed. It also can be equipped with communication supporting Modbus-RTU protocol.

## 1.2 Model selection

Function		LNF33
Appearance	Display mode	LCD
	Installation size (mm)	72×72
Real-time measurement	Current, frequency	■

Note: “■” indicates that this function is available.

# 2. Technical parameters

## 2.1 Technical specification

Working environment conditions	
Working temperature	-10°C -- 55°C
Storage temperature	-25°C -- 70°C
Relative humidity	≤95%RH, no condensation
Working altitude	≤2500m
Anti-pollution level	Non-corrosive gas
Protection degree	Front case IP54, rear case IP20
Insulation	Between signal, power supply, output terminal to case resistance >100MΩ
Withstand voltage	Input and power supply ≥ 2kV, input and output ≥ 2kV, power supply and output ≥ 2kV
Display	
Display method	LCD

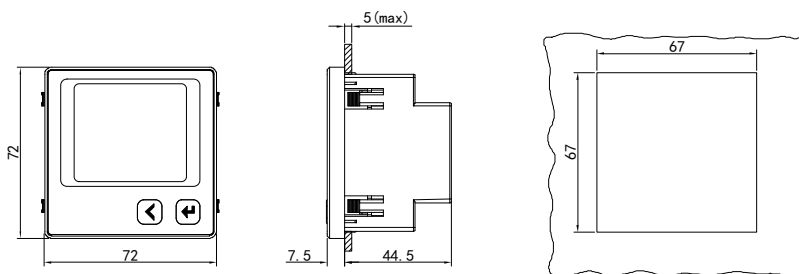
<b>Working power supply</b>	
Rated range	AC/DC ( 80~270 ) V
Power consumption	≤3VA
Withstand voltage	≥2kV
<b>Current input</b>	
Range	3×5A/1A
Resolution	1 mA
Impedance	≤20mΩ/ per phase
Power consumption	≤0.2 VA/ per phase
Overload	Continuous:1.2Vn Instantaneous: 10In/5s
Frequency	45 Hz-65 Hz
<b>Communication interface</b>	
Physical interface	RS-485
Communication speed	Up to 9.6 kbps
Communication protocol	Modbus-RTU
Isolation voltage	2000 VAC (1 min)
<b>Electromagnetic compatibility</b>	
Electrostatic discharge immunity	IEC 61000-4-2-III
Radiated, radio-frequency, electromagnetic field immunity	IEC 61000-4-3-III
Electrical fast transient/burst immunity	IEC 61000-4-4-IV
Impact (surge) immunity	IEC 61000-4-5-IV
Immunity to conducted disturbances, induced by radio-frequency fields	IEC 61000-4-6-III
Power frequency magnetic field immunity	IEC 61000-4-8-III
Voltage dips, short interruptions and voltage variations immunity	IEC 61000-4-11-III

## 2.2 Measurement parameter

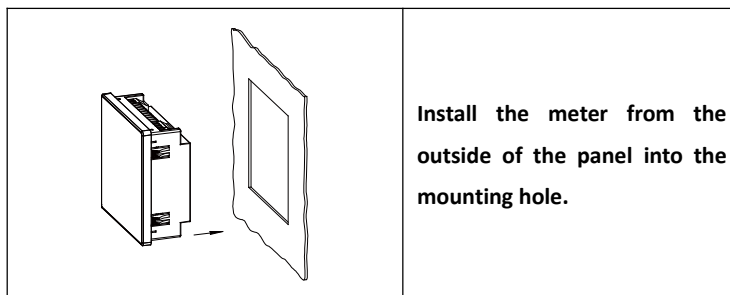
Measurement variable	Accuracy	Instant	Demand	Sum	Unit
I1/I2/I3	0.2	●	●	—	[A,kA]
F	±0.01Hz	●	—	—	[Hz]

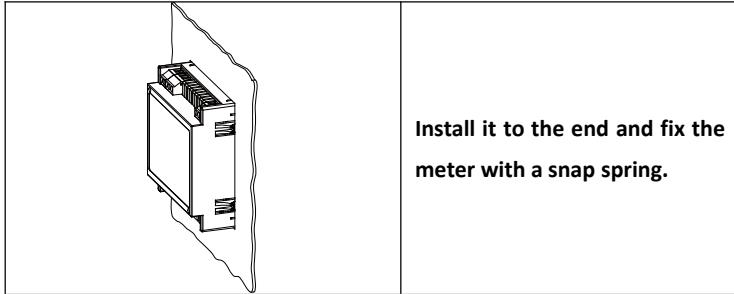
## 3. Installation

### 3.1 Dimension



### 3.2 Installation





Install it to the end and fix the meter with a snap spring.

### 3.3 Wiring

