AC Three-phase Voltmeter
User Manual

This manual is applied to the following models：
LNF26

JIANGSU SFERE ELECTRIC CO., LTD.

1 Product Description

1.1 Overview

This series of digital ac voltmeter is suitable for measuring three phase ac voltage parameters of low voltage distribution system. This meter can support programmable transformer ratio, and can be equipped with communication function to support Modbus-RTU communication protocol.

This series of meter can be widely used in various control systems, distribution automation system, industrial automation system and intelligent buildings.

1.2 Model selection

	Function	LNF26
Appearance	Display mode	LCD
	Installation method	Panel mounted
Real-time measurement	Voltage, frequency	■

Note: "■" Yes.

2. Technical parameters

2.1 Technical specification

Working Environment	
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
Working Power Supply	
Rated range	AC/DC（80～270）V
Power consumption	≤3VA
Withstand voltage	≥2kV
Voltage Input	
Range	3×230/400V
Resolution	0.1 V
Impedance	≥1.7 MΩ/ per phase
Power consumption	≤0.1 VA / per phase
Overload	Continuous: 1.2Vn Instantaneous: 2Vn/1min
Frequency	45 Hz-65 Hz
Communication Interface	
Physical interface	RS-485
Communication speed	Up to 9.6 kbps

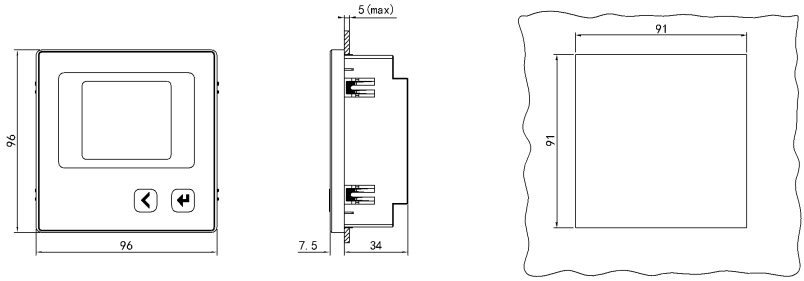
Communication protocol	Modbus-RTU
Isolation voltage	2000 VAC (1 min)
EMC	
Electrostatic discharge immunity	IEC 61000-4-2-III
Radiated, radio-frequency, electromagnetic field immunity	IEC 61000-4-3-III
Electrical fast transient/burst immunity	IEC 61000-4-4-IV
Impact (surge) immunity	IEC 61000-4-5-IV
Immunity 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
V1/V2/V3	0.2		●	—	—	[V,kV]
U12/U23/U31	0.2		●	—	—	[V,kV]
F	±0.01Hz		●	—	—	[Hz]

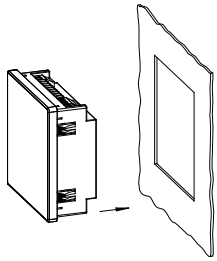
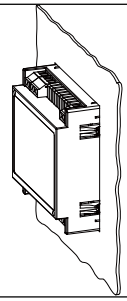
3 Installation

3.1 Dimension

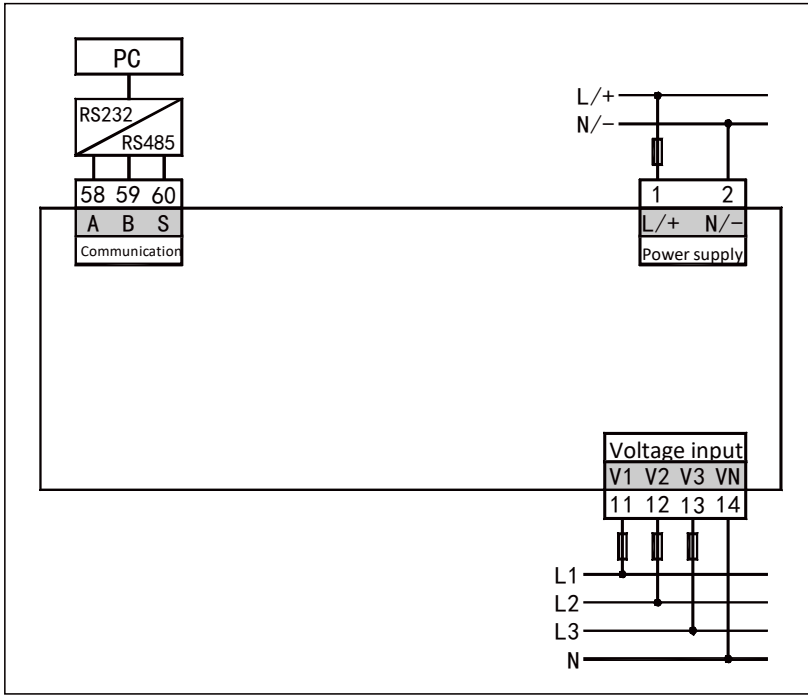


Picture 3-1 Installation Dimension

3.2 Installation

	**Install the meter from the outside of the panel into the mounting hole.**
	**Install it to the end and fix the meter with a snap spring.**

3.3 Wiring


PC
RS232
RS485
58 59 60
A B S
Communication
L/+
N/−
1 2
L/+ N/−
Power supply
Voltage input
V1 V2 V3 VN
11 12 13 14
L1
L2
L3
N