

NPFR-16-1



Features

- New digital design
- User-friendly design
- Modular assembly
- Real-time display of power factor, voltage, current, active power, reactive power, harmonics and capacitor switching status
- Chinese prompt of parameters
- Automatic and manual modes
- Support the power four quadrant function;
- For photovoltaic power generation applications
- Alarm output
- Temperature-controlled fan
- Alarm information :
 - LV Undervoltage alarm
 - HTHD communication (modbus)
- RS-485 communication (modbus)

1. Product Introduction

- 1.1 Fully digital design, exchange sampling.
- 1.2 Adhering to the people-oriented design concept, modular assembly and streamlined appearance design.
- 1.3 Real-time display of power factor, voltage, current, reactive power and capacitor switching status and other information.
- 1.4 Chinese prompt for setting parameters, digital input.
- 1.5 The capacitor control scheme supports cyclic switching compensation with power factor or precise compensation of reactive power. The compensation scheme can be set through menu operation.
- 1.6 There are two working modes of manual compensation and automatic compensation.
- 1.7 The sampled physical quantity is power factor or reactive power.

2. Technical Parameter

Temperature	: -20°C ~ +60°C
Storage Temperature	: -40°C ~ +70°C
Altitude	: Not exceed 2500m
Environmental condition	: Without explosive and flammable dangerous medium, without corrosive metal gas and the conductive dust.

Measurement data	
Measuring voltage	: 50V ~ 690V
Measuring current	: 0 ~ 5000A (one time)
Sensitivity	: 50mA (secondary)
Measuring power factor	: 0.200 lagging to 0.200 leading

Working power supply	: 415V ± 20% Measuring
Measuring frequency	: 47 ~ 53Hz
Active power	: 0 ~ 6553Kw
Reactive power	: 0 ~ 6553Kvar

Total harmonic distortion of voltage	: 0.0 ~ 100.0%
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Total harmonic distortion of current	: 0.0 ~ 100.0%
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Display Performance	: LCD data display refresh cycle ≤ 1s
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Input/output signal:

Sampling voltage	: 240V / 415V
Sampling current	: Phase A current, transformer secondary 0 ~ 5A
Control output	: Relay dry junction 5A/250V resistive (static) 12V 30mA/branch (dynamic)

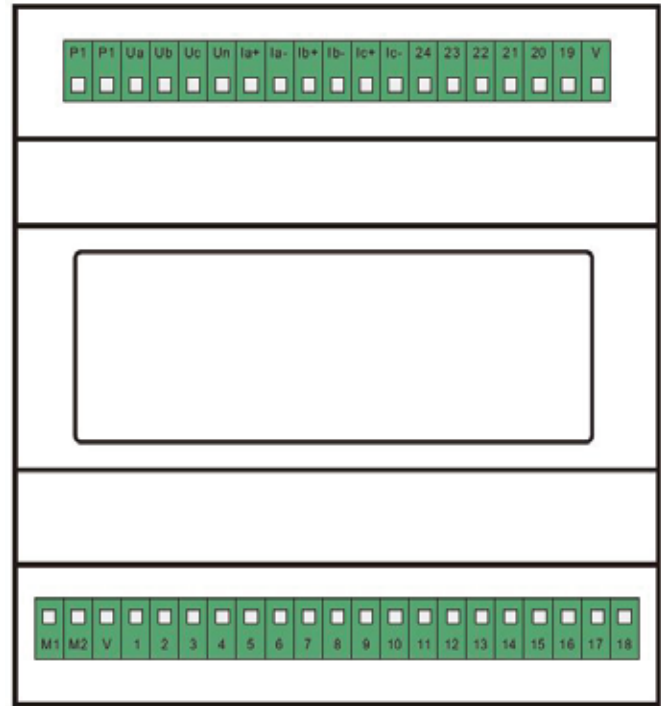
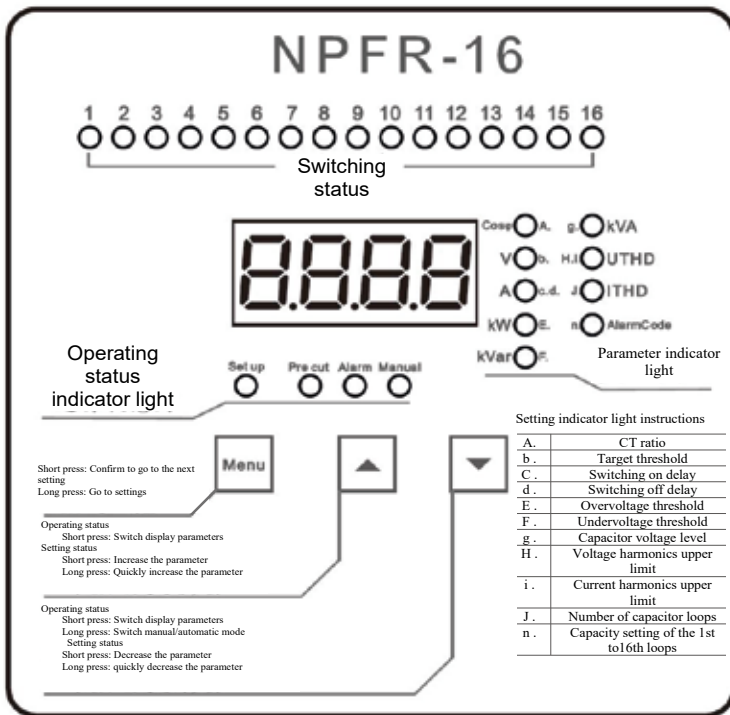
Setting data:

- A. Total cabinet transformation ratio: 1 ~ 900 (ratio)
- B. When the transformation ratio is equal to 1, it is the target power factor: ≤ 0.99
When the transformation ratio is greater than 1, it is the target reactive power: ≤ 99kvar
- C. Switching delay: 5 ~ 300s
- D. Removal delay: 30 ~ 300s
- E. Overvoltage setting: 100V ~ 500V
- F. Undervoltage setting: 50V ~ 500V
- G. Number of capacitor circuits: 1 ~ 12
1.-12. Capacity setting: 1 ~ 80kvar

Communication interface data

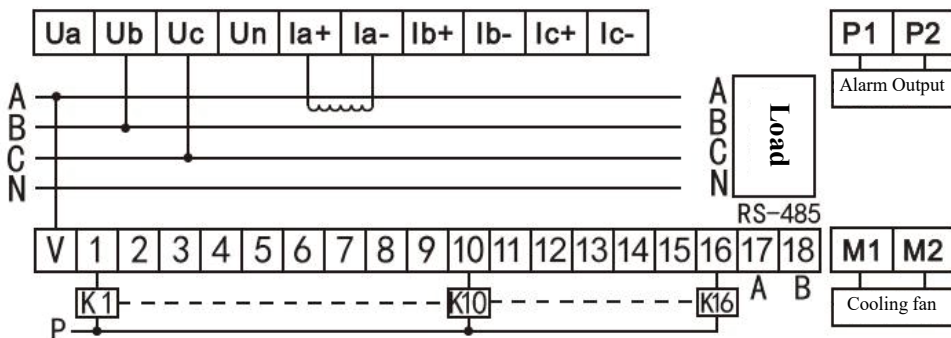
Communication interface	: RS-485
Protocol	: MODBUS communication protocol
Communication rate	: 9600bps (no parity bit)

3. Panel Overview

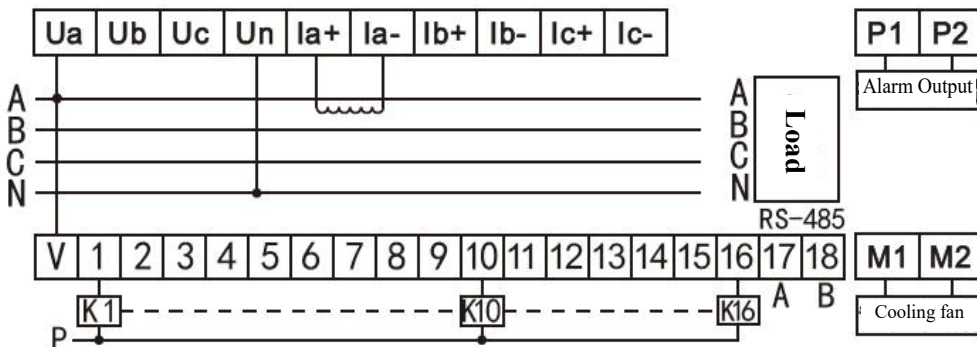


4. Connecting Diagram

(PP) Three-phase three-wire connection

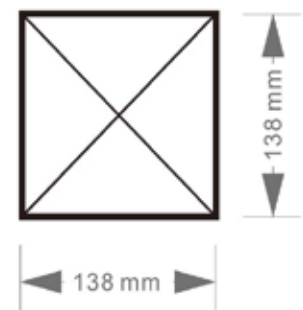
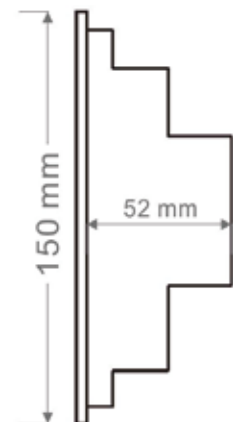


(PN) Three-phase four-wire connection



Reference standards: IEC 61000-6-2/6-4 & IEC 60255-27

5. Installation



Opening size: 138x138mm