

# LNF Series

## Multi-function Meter



Real-time measurement  
Switch status monitoring  
Power quality monitoring  
Limit alarm  
Energy metering



### FUNCTION

#### ● Networks

-TN, TT, IT networks

#### ● Communication

-Interface:RS485  
-Protocol:Modbus-RTU

#### ● Accuracy

-U , I , Class 0.2  
-P , Q , PF Class 0.5  
-kWh Class 0.5S

### MAIN FEATURES

#### ● Measuring

-Demand  
-Max./Min. Value

#### ● Energy metering

-Bi-directional energy  
-4-quadrant reactive energy  
-Tariff energy (Optional)

#### ● Power quality

-Harmonics up to 31st  
-Sequence component  
-Unbalance  
-Crest factor and K factor

## APPLICATIONS



Data Acquisition

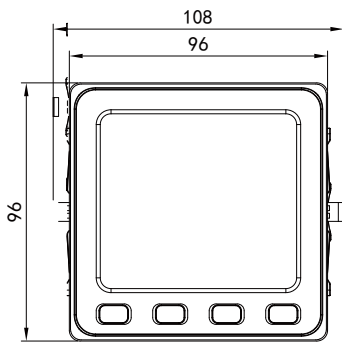


Energy Management

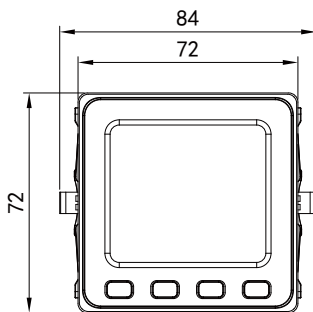
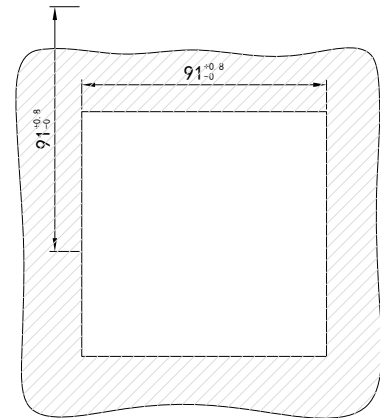
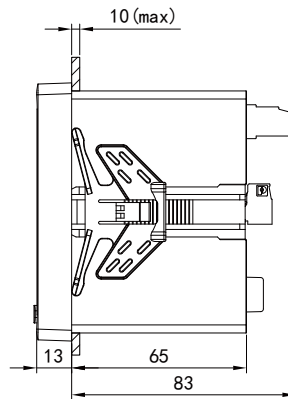


Remote Power Monitoring

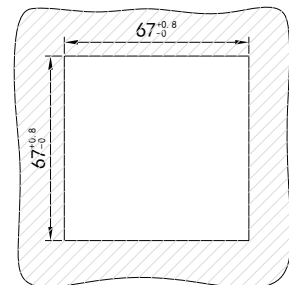
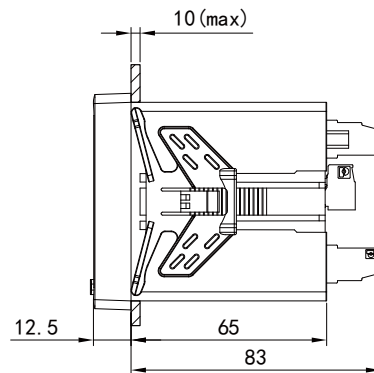
## DIMENSIONS



LNF96 Series



LNF72 Series



Function		LNF72EY-C	LNF72EY-CJK
		LNF96EY-C	LNF96EY-CJK
<b>Display method</b>	Display	LCD	LCD
<b>Real-time measurement</b>	U, I, P, Q, S, PF, Hz	■	■
	Demand	■	■
	Max, Min, Average value	■	■
<b>Energy metering</b>	Bi-directional active energy	■	■
	Bi-directional reactive energy	■	■
	Four-quadrant reactive energy	■	■
	Tariff energy (6 sets)	—	—
<b>Power quality monitoring</b>	THDi, THDu	■	■
	Individual harmonic ratio	2-31st	2-31st
	Unbalance	■	■
<b>Communication</b>	RS485	1	1
<b>Input/output</b>	Digital input	—	4
	Relay output	—	2
	Analog output	—	—
	Energy pulse output (LNF96 Series)	1	1
<b>Others</b>	Limit alarm	■	■
	Event records	—	—
	Freezing data	—	—
	Communication register address mapping	■	■

NOTE: "■": Yes "—": No

LNF72EY-CMJKF	LNF72E-C	LNF72E-CJK	LNF72E-CMJK
LNF96EY-CMJKF	LNF96E-C	LNF96E-CJK	LNF96E-CMJK
LCD	LED	LED	LED
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	—	—	—
■	■	■	■
2-31st	2-31st	2-31st	2-31st
■	■	■	■
1	1	1	1
4	—	4	4
2	—	2	2
1	—	—	1
1	1	1	1
■	■	■	■
■	—	—	■
■	—	—	■
■	■	■	■

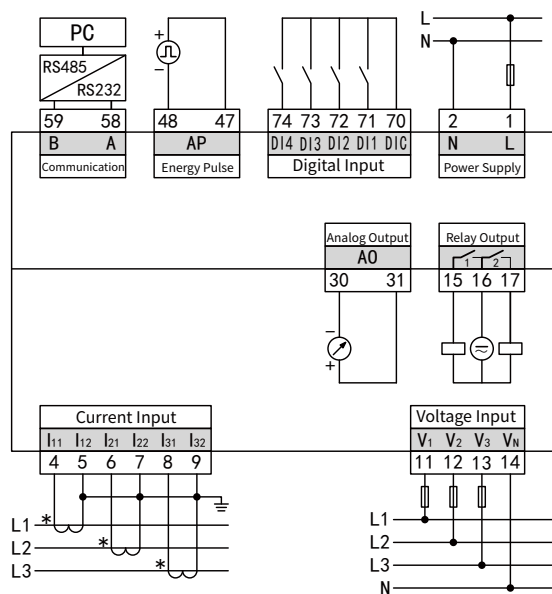


## TECHNICAL SPECIFICATION

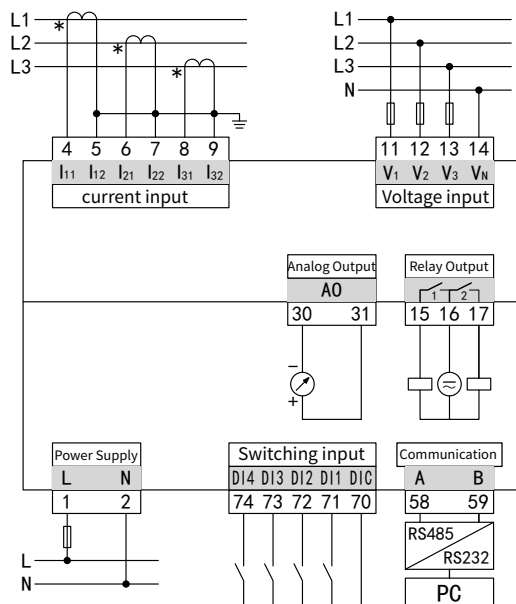
<b>Voltage input</b>	Rated value	AC 3*230/400V 3*100V etc.
	Startup value	10V
	Resolution	0.1 V
	Impedance	$\geq 1.7 \text{ M}\Omega/\text{phase}$
	Power consumption	$\leq 0.1 \text{ VA /phase}$
	Overload	Continued: $1.2V_n$ , Instantaneous: $2V_n/1\text{min}$
	Frequency	45Hz-65Hz
<b>Current input</b>	Rated value	AC 1A, 5A
	Startup value	10mA
	Resolution	1mA
	Impedance	$\leq 20\text{m}\Omega/\text{phase}$
	Power consumption	$\leq 0.2 \text{ VA/phase}$
	Overload	Continued: $2I_n$ , Instantaneous: $20I_n/1\text{s}$
<b>Ambient condition</b>	Operating temperature	-25°C - +70°C
	Relative humidity	5%-95%RH, No condensation
	Working altitude	$\leq 2000\text{m}$
	Pollution degree	2
<b>Mechanical features</b>	Dimension	96mm×96mm×83mm
	IP	Front IP54, Back IP20
<b>Security features</b>	Measurement category	300V CAT III
	Safety	IEC 61010-1, Double insulation
<b>Analog output</b>	Number	1
	Type	4-20mA, 4-12-20mA
	Load capacity	$\leq 350\Omega$
<b>Relay output</b>	Number	2
	Contact rating	AC 250V/5A or DC30V/5A (AC1)

<b>Digital input</b>	Number	4
	Type	Dry contact, built-in DC 24V
<b>Auxiliary power</b>	Voltage	AC/DC 80~270V 50/60Hz
	Power consumption	≤ 5VA
<b>Communication interface</b>	RS485	Modbus-RTU
<b>Real time clock</b>	Clock drift	≤ 0.5s/day
<b>Standard</b>	IEC 61557-12, IEC62053-22, IEC62053-23 , IEC 61010-1, IEC 61326-1	

## TYPICAL WIRING



LNF96E/EY-CMJK



LNF72E/EY-CMJK