

# Power Factor Meters

**UMP**



## Features

True power system design complaints  
ANSI-IEEE, IEC & VDE standards  
High over capability to assure reliable operation  
High accuracy 0.5%  
Display with super rate LED

## Applied rules & standards

Measuring & conversion	IEC 688
Dielectric strength	IEC 688
Impulse & Surge test	ANSI C37.90/1989, IEC 255-3
Adaptability-power system	IEC 0110
Measuring reliability	VDE 3540

## Description

Model UMP Power factor meters, designed of a balance type with universal & flexible application feature, can be applied to measure single phase 2 wires, 3 phase 3 wires & 3 phase 4 wires only under the specified terminal connection. The units accept ac voltage & current inputs with detection of phase relation between the measured phase voltage & phase current of power factor  $\text{COS } \varphi$  for UMP.

The designed specifications compliant ANSI, DIN & VDE standards with full protection for unusual surge intrusion and input over assuring reliable operation.

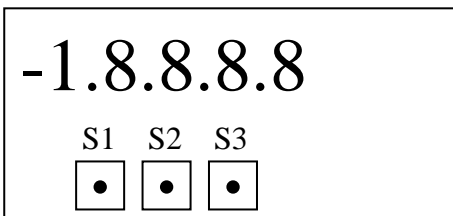
## Specification

Accuracy ( $23 \pm 3^\circ\text{C}$ )	$0.5\%fs + 0.2^\circ > 20\%$ input current, $0.5\%fs + 0.4^\circ > 10\%$ input current
Stability	Temperature coefficient $< 50$ ppm per degree c, long term draft $< 0.2\%$ per year
Display & resolution	0.56" super rate LED, 0.0001-1.0000 for PF
Response time	Sample rate 1 of per sec. typically
Input over	Current input : 3 x rating - continuous, 10 x rating - 30 sec., 25 x rating - 3 sec. Voltage input : maximum continuous 750V or 1.5 rating which ever great
Frequency	40-70 Hz
Dielectric strength	2.5 KVrms / 1 minute input / power / case
Surge test	ANSI C37.90/1989, IEC 255-3 (1989)
Impulse	Voltage 1.2 x 50us 4KV, oscillation wave 0.5us-100KHz 3KV or 1MHz-0.25 ms 2.5KV
operating condition	Temperature range $-10$ to $55^\circ\text{C}$ , 0-99% RH non-condensed, storage $-25$ to $70^\circ\text{C}$
Auxiliary power	AC/DC version $< 3.5\text{VA}$ , DC option 24V $\pm 20\%$ $< 5$ watts

## Order form

System	Function	Models
1 phase 2 wires 3 phase 3 wires 3 phase 4 wires	Power Factor	UMP <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Frame (in mm)		
96 x 48		U <input type="checkbox"/>
Auxiliary Power		
AC / DC 30~250V		S <input type="checkbox"/>
DC 24V ±20%		1 <input type="checkbox"/>
Voltage & Current input		
Defined range	Effective range	
75~280V / 0.5~5A	50~300V / 0.25~7.5A	1
75~280V / 0.1~1A	50~300V / 0.25~1.25A	2
180~500V / 0.5~5A	150~600V / 0.25~7.5A	3
180~500V / 0.1~1A	150~600V / 0.25~1.25A	4

## Function Key



S1 : Exit the setting and return to mode of measurement

S2 : Increasing value or Select Type

S3 : Enter the setting or next figures

⌋ : Keying Sx (S1、S2、S3)

## Enter Setting :

1. Enter Password

⌋S3 →  → ⌋S3 →

2. Write Password (0011)

⌋S3 ⌋S3 ⌋S2 → ⌋S3 ⌋S2 → ⌋S3

3. Select Type

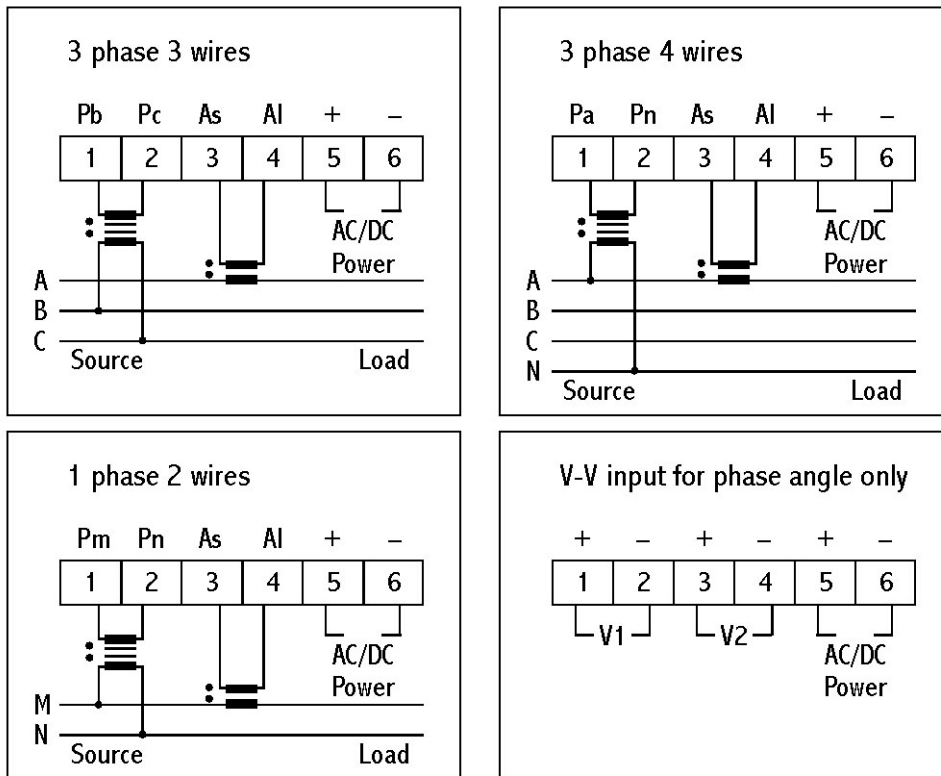
(UMP) 3 φ 4W  ⌋S2 ↓ ⌋S2 ↑  
 (UMP) 3 φ 3W

4. Escape Setting and Save

⌋S1

**PS : When system is 1 phase 2 wires, the type select to 3 φ 4W**

## Wiring



## Dimension

### U type

