

# MWH-7W Wall-mounted Electronic Energy Meter **ADTEK**

## Description

The MWH-7W series is an electronic energy meter with excellent performance, the main function is high-precision energy metering, the panel has LCD display, the energy value is clear and easy to read. The power meter provides functions such as pulse output and RS485 communication interface, which is convenient for the user to check or structure into a centralized meter reading system.

Panel and wiring cover with lead seal, in accordance with CNS 14607 specification design.



Single-phase two-wire

Single-phase three-wire

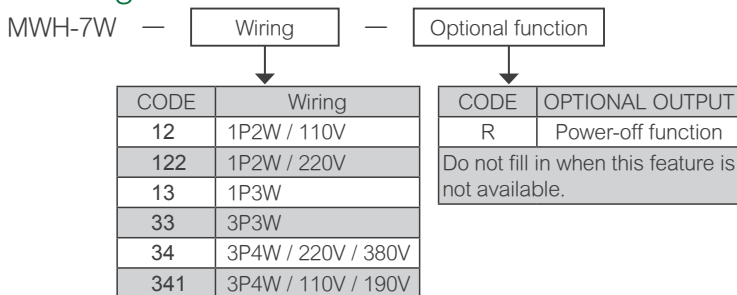
Three-phase three-wire

Three-phase four-wire

## Application

- Rental building energy management
- Rental apartment energy management
- Dormitory energy management
- Booth energy management
- Market/vender/stand energy management
- Distributed generation energy management
- Trailer coach energy management

## Ordering Information



## Technical Specification

### Measurement and wiring

Wiring	Voltage	Current	Frequency
1P2W	110V 220V	20(80)A	50/60Hz
1P3W	110V/220V		
3P3W	3 x 220V		
3P4W	3 x 110V/190V 3 x 220V/380V		

Accuracy: Class 0.5  
 Voltage range: 80~120% Rated voltage  
 Operation current range: 0.05Ib~Imax  
 Starting current: 0.4%Ib  
 Resolution: Three-phase: 0.1 kWh  
 Single-phase: 0.01kWh  
 Pulse constant: Three-phase: 400 impulse/kWh  
 Single-phase: 1600 impulse/kWh  
 Power consumption: 2W / 10VA

### RS485 communication

Interface: RS-485  
 Protocol: Modbus RTU Mode  
 Baud rate: 1~247  
 Data bits: 2400、4800、9600、19200bps  
 Parity: N,8,1  
 Distance: 1200M max  
 Termination resistor: 150Ω.  
 Data storage time: ≥ 10 years

4d57483757-44-454e-53-41, Rev 1.2

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### Display

LCD:  
 Large LCD: Three-phase: 7 digits LCD(6+1)  
 Single-phase: 8 digits LCD(6+2)  
 with communication status (phone icon)  
 Status indicator:  
 Pulse output indication: RED LED, flash during pulse output  
 Alert status indication: RED LED, lights up when relay power off occurs

### Power-off function

Built-in 100A relay, can remotely control power off or power on

### Environmental

Operating: Temp.-10°C ~60°C  
 Humi.0~95% ,Non-condensing  
 Storage: Temp.-20~70°C  
 Humi.0~95% ,Non-condensing

### Electrical safety

Surge test: 6KV · 1.2x50uS  
 Dielectric strength: AC 2.5KV, 50/60Hz, 1 minute  
 Safety: CNS 14607



## Mechanical characteristics

Lead seal design:

Panels and wiring terminals can be lead sealed, in accordance with the measurement and regulatory design, to avoid human theft of electricity or misoperation.

Dimensions:

Single-phase: 111.9 x 159.6 x 60.3 mm

Three-phase: 144 x 217 x 72 mm

Case material:

ABS (Flame retardant)

Installation:

Wall mount

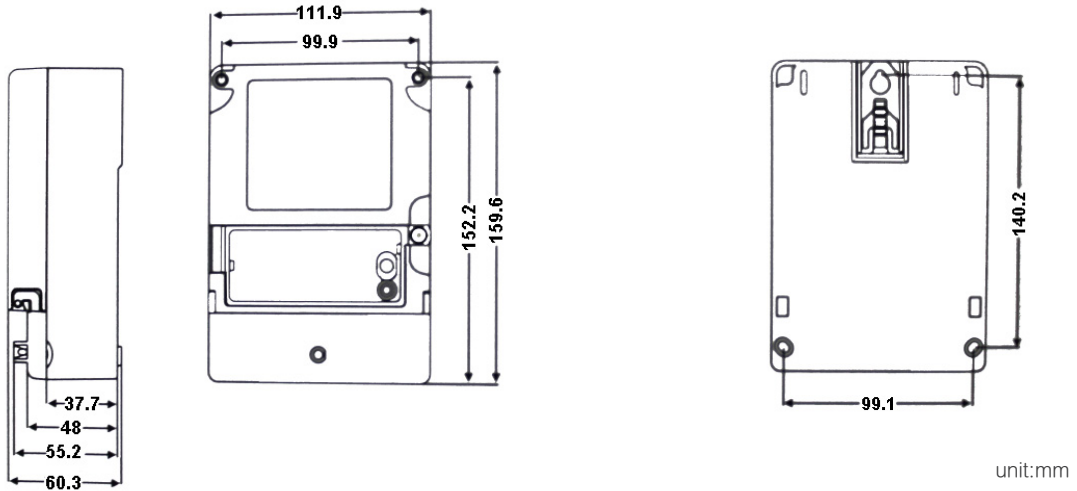
Weight:

Single-phase: around 510g

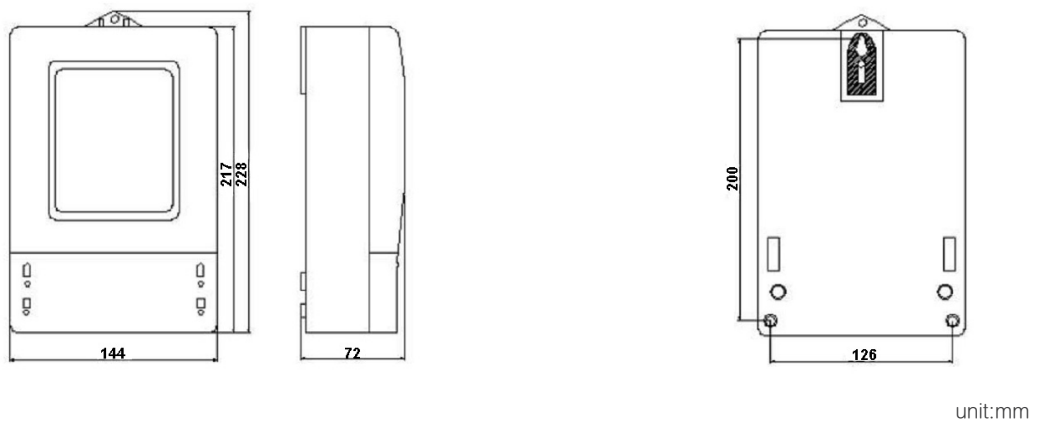
Three-phase: around 1135g

## Dimensions

Single-phase

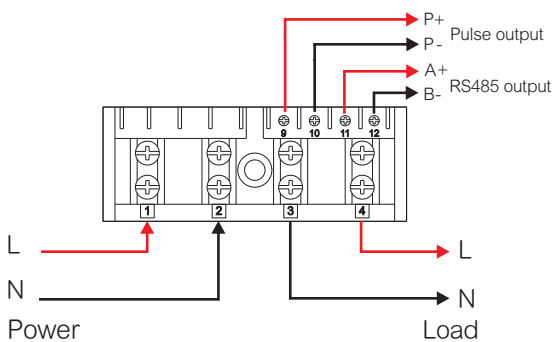


Three-phase

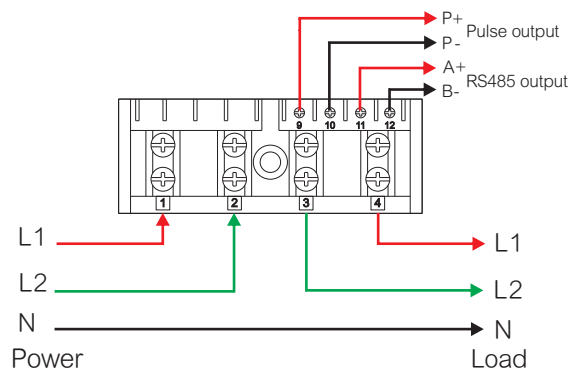


## Wiring Diagram

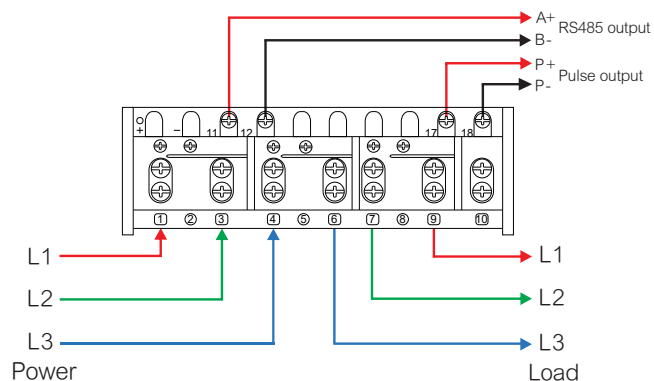
Single-phase two-wire



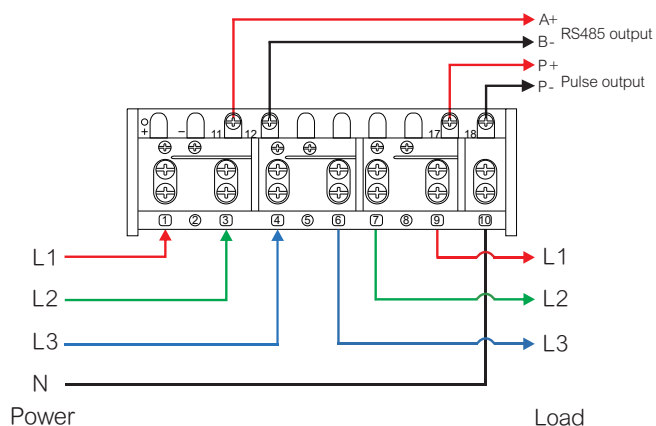
Single-phase three-wire



Three-phase three-wire



Three-phase four-wire



MWH-7W

## Communication table(Modbus RTU)

Data reading and setting(function code:03h, 10h)

Parameter	Address	Range	Description	Default	Read Write	Remark
kWh	0000h	Three-phase: 0.0~999999.9 kWh Single-phase:0.00 ~ 999999.99kWh	Active Energy(High Word)		R	
	0001h		Active Energy(Low Word)		R	
R485 ADDR	0020h	1~247	Address	1	R/W	
R485 BAUD	0021h	1~4	Baud Rate 1:2400, 2:4800 3:9600, 4:19200	3	R/W	
Parity Check, Fixed as 8,N,1(8 bits data, none parity , 1 bit stop)						

Relay Control(function code:01h, 05h)

Parameter	Address	Range	Description	Default	Rea Write	Remark
Relay	0000h	05h:0000h or ff00h 01h:0~1	Relay status and control 0=Relay off 1(ff00h)=Relay on		R/W	