

# LoRaWan Smart Meter

## Description

The LoRaWan Smart Meter adopts LoRa Radio Frequency technology, complying with LoRaWAN protocol. It provides all the functionalities needed for power monitoring, including voltage U, current I, active power P, reactive power Q, apparent power S, power factor PF, Voltage imbalance, Current imbalance, frequency, 31st harmonic content and total harmonic content

The Smart Meter is designed for easy din rail installation, making it ideal for fast and high accuracy power metering applications. It also supports different values of CT, making it easy to accommodate to different requirements.



## Applications

- Smart Metering
- Smart Building
- Industrial 4.0
- Smart Office
- Smart Billing System
- Smart Energy Management

## Product Features

- Energy data
- Power / Voltage / Current
- THD
- Harmonics up to 31<sup>st</sup>
- Unbalance
- Power factor

## Device Specifications

Display mode	LCD
Energy metering	Active kWh (positive and negative), quadrant reactive power energy
Electrical measurement	U、I、P、Q、S、PF、F
Harmonic function	THDv、Harmonic on 2nd-31st
Pulse output	Active pulse output
Three-phase unbalance degree	Voltage unbalance,current unbalance
Temperature measurement	Temperature of A/B/C/N (Alternate configuration:T)
DI/DO	4DI,2DO (Alternate configuration:K)
Aftercurrent	One-way aftercurrent (Alternate configuration:L)
LED display	Pulse LED display
External current transformer	External open type current transformer (Alternate configuration:W)
Electrical parameter	Undervoltage, undercurrent, overcurrent, underload, etc



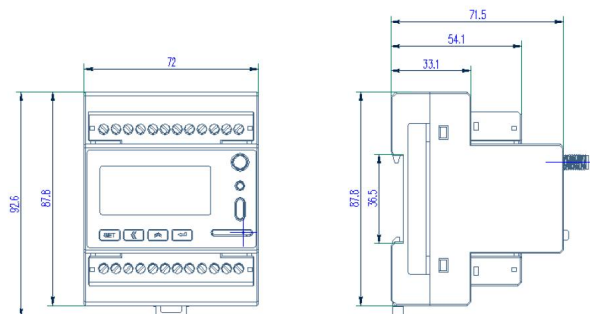
## Technical Parameters

Voltage input	Rated voltage	3×57.7/100V, 3×220/380V, 3×380/660V, 3×100V, 3×380V, 3×660V
	Reference frequency	50Hz
	Consumption	<0.5VA (Each phase)
Current Inout	Input current	3×1(6)A ; 3×1(6)A (ADW300W) , 3×20(100)A (ADW300W) -HJ: (3×1.5(6)A (D10) 、3×20(100)A (D16) 、3×80(400)A (D24) 、3×120(600)A (D36) ) 、1000A/200mV (Rogowski Coil) 、100A/333mV
	Start current	1‰ Ib (Class 0.5S), 4‰ Ib (Class 1)
	Consumption	<1VA (Each phase)
Auxiliary power	Power Supply	AC 85~265V
	Power consumption	<2W
Measurement performance	Standard	IEC 62053-22:2003, IEC 62053-21:2003
	Active energy accuracy	Class 0.5S (ADW300) , Class 1 (ADW300W)
	Temperature accuracy	±2℃
Pulse	Width of pulse	80±20ms
	Pulse constant	6400imp/kWh , 400imp/kWh -HJ (6400imp/kWh (D10) 、400imp/kWh (D16) 、100imp/kWh (D24) 、60imp/kWh (D36) )
Temperature Range	Operating temperature	-20℃~55℃
	Storage temperature	-40℃~70℃
Humidity		≤95% (No condensation)
Altitude		<2000m

## Dimensions

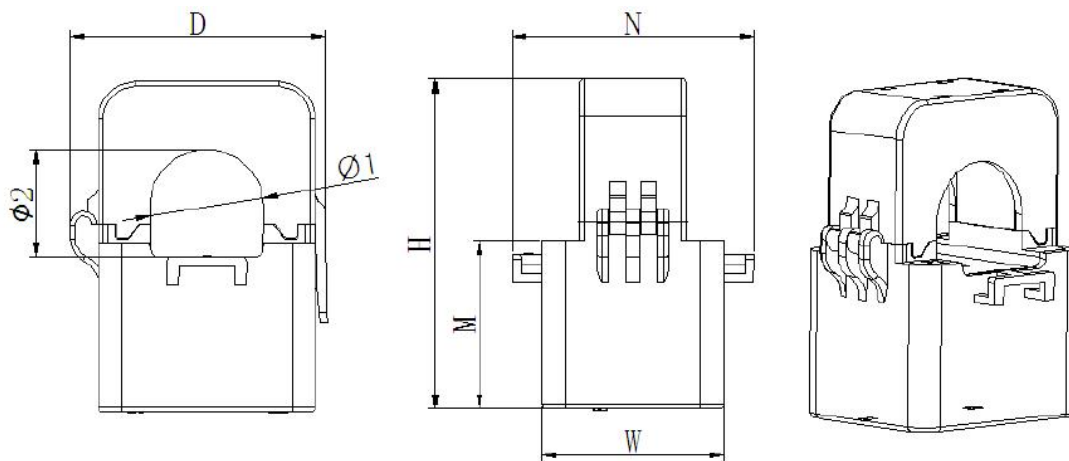
Specifications	Current Rating	Inside diameters Φ mm	Outside diameters Φ mm	Weight	
AKH-0.66L45	16~100A	45	76	0.18	
AKH-0.66L80	100~250A	80	120	0.42	
AKH-0.66L100	250~400A	100	140	0.50	
AKH-0.66L150	400~800A	150	190	1.32	
AKH-0.66L200	800~1500A	200	240	1.94	

Dimension of Residual Current transformer



Specifications	external dimension (mm)					Hole size (mm)		error range (mm)
	W	H	D	M	N	Φ1	Φ2	
AKH-0.66/K-Ø10N	27	44	32	25	36	10	9	±1
AKH-0.66/K-Ø16N	31	50	36	27	42	16	17	
AKH-0.66/K-Ø24N	39	71	46	36	52	24	23.5	
AKH-0.66/K-Ø36N	42.5	82	58	40	56	33.5	35	

Dimension of Current transformer



Dimension drawing of supporting transformer

## Ordering Information

Part Number	Communication	Display	CT value (A)
AEACHWSM300L	LoRaWan 923MHz	Yes	Refer to below



## Warning

Assumes no liability for any damage resulting from the use of this product. CHINOTECH INTERNATIONAL LIMITED reserves the right to change this data sheet at any time without notice. The information furnished by ChinoINT is believed to be accurate and reliable. However, no responsibility is assumed by ChinoINT for its use, not for any infringements of patents or other rights of third parties resulting from its use.

## Product Warranty and Customer Support

ChinoINT warrants all products free from defects in material and workmanship for a period of one year from the date of shipping. During the warranty period, we will, at our position, either repair or replace any product that proves to be defective. To report any defect, please inquiry [sales@chinoint.com](mailto:sales@chinoint.com)

Unauthorized opening and improper repairs on the device may result in substantial damage to equipment or endanger the user. The product described in this documentation may be operated only by personnel qualified. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products. Always disconnect the power plug before you open the device.

Please have the model, serial number and a detailed problem description available when you call. If the problem concerns a particular reading, please have all meter readings available.

This warranty does not apply to defects resulting from unauthorized modification, misuse. If you install or exchange system expansion and damage your device, the warranty becomes void.

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We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

