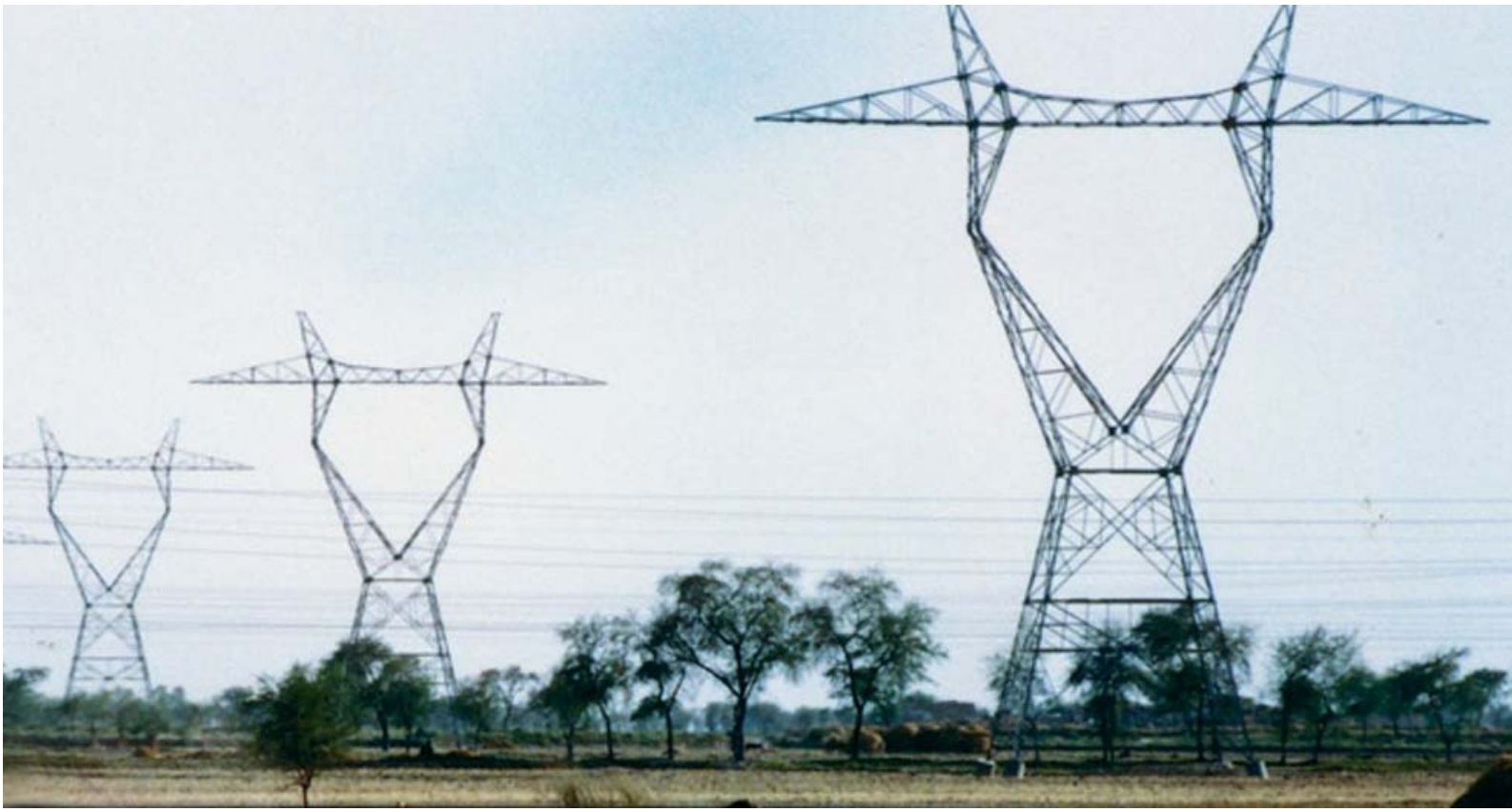
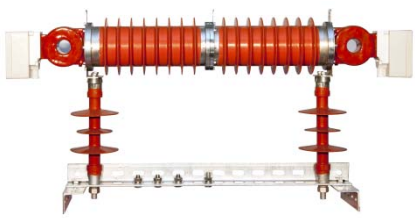
WHVM178 High Voltage Energy Meter

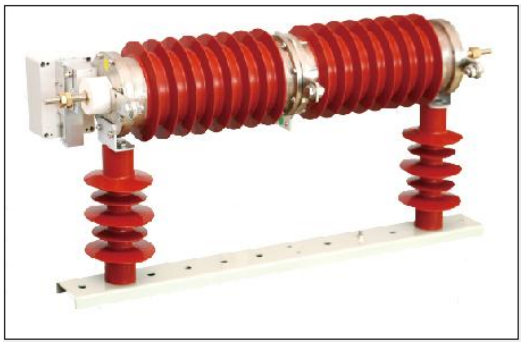




Yantai Dongfang Wisdom Electric Co. Ltd.

2015

1. Overview



With the smallest volume among the like products worldwide, the WHVM178 energy meter which is specially designed for high voltage metering can be directly involved in the high voltage systems without any CT and PT. It has obtained many technology breakthroughs in the field of high voltage energy metering and innovation patents based on our rich R&D experience. It has been widely applied for outdoor high voltage energy metering. The highlighted features of the meter include high accuracy level, resistance to harsh environment, less weight with smaller volume, anti-theft, accurate line loss management and harmonic component monitoring, convenient installation, etc. The meter has evolved from the conventional high voltage metering mode of Transformer+Energy Meter to an integrated meter which benefits customers in both high accuracy and portability.

2. Operation principle

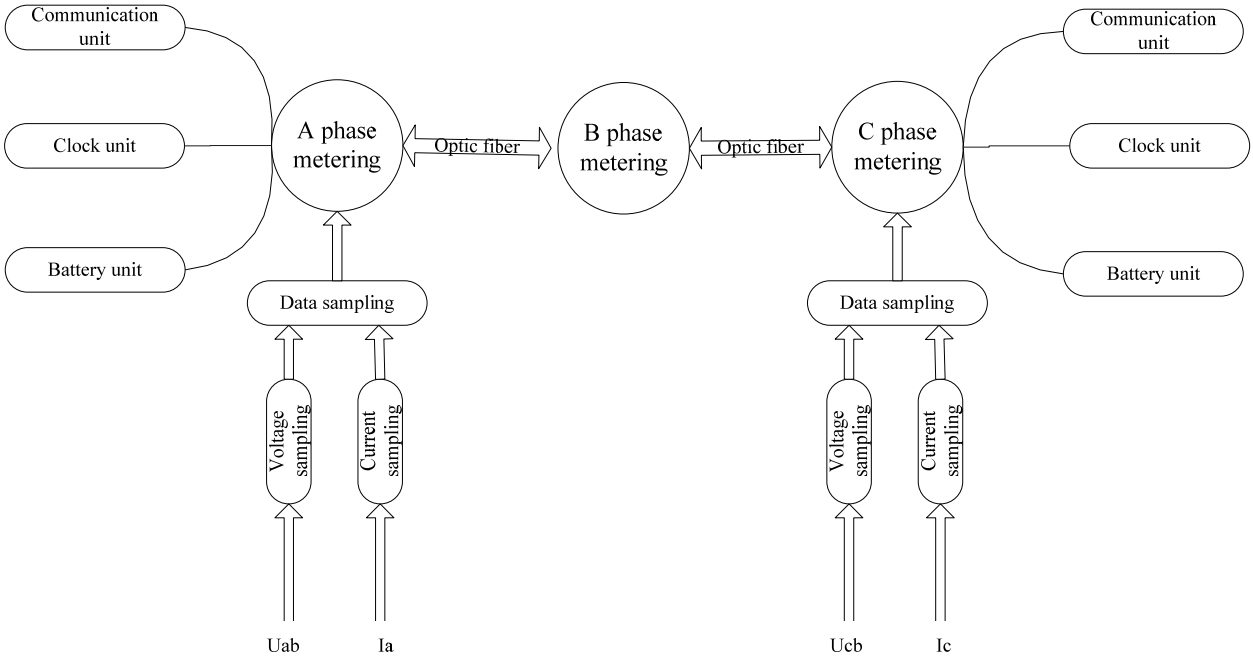


Diagram of operation principle

3. Main functions and features

- High voltage energy metering on the primary side of transformer which improves the metering accuracy and prevents the electricity theft
- High accuracy metering within wide temperature range, wide linear range and wide dynamic range, with the accuracy reaching Class 0.2S
- Electricity-theft monitoring. The meter can be directly applied as 'check meter' for transformers, and the metering data will be compared with that from secondary-side meter to decide the power theft issues
- Line loss real-time monitoring
- Harmonic component monitoring of high voltage distribution system
- Special measures are taken for explosion-proof with high security. Internal fuse protection to prevent explosion in case of spark over. PT and CT free to get rid of the hidden effect from ferromagnetic resonance
- The communication module is driven via direct high voltage power supply without involving low voltage power supply. Furthermore, the module can be replaced with power on
- The device is designed with good insulation and sealing property, and is able to operate under the cold and harsh environment outdoor based on the waterproof and damp-proof performance
- Power consumption during operation is lower than 15W; design with few iron, copper and other insulation materials
- Small volume for convenient transportation and installation.

4. Technical specifications

Item	**Content**	
Reference Voltage	6kV, 10kV,11kV	
Reference Current	10(40)A, 50(60)A, 50(200)A, 150(600)A, 600(720)A	
Wiring	3P3W,3P4W	
Accuracy	active energy	0.2s or 0.5s
	reactive energy	2.0
	Voltage	0.2%
	Current	0.2%
	Active Power	0.2%
	Reactive Power	0.5%
Working Temperature	-25°C~+55°C(default model for outdoor installation)	
	-40°C~+55°C (low temperature model for outdoor	

	installation)
	-10°C~+70°C (high temperature model for outdoor installation)
Communication Interface	GPRS/CDMA, RF, Optical Fiber
Dimensions	Φ140mmx780mmx360mm
Weight	18kg

5. Physical dimension

Standard Version:836mm(L) × 200mm(W) × 488mm(H)
Weight: Approximately 18Kg