DongFang Wisdom RMU Type HV Energy Meter

Dongfang Wisdom RMU Type HV Meter is designed for metering requirement of RMU in 10kV/11kV distribution network. This product can be installed in RMU cable compartment using plug-in method, it has advantages like light and small, space saving, convinient for install, energy saving and etc. There are metering, communication and monitoring three functions in this product, it can accurately doing metering for 3 pahse positive and negative active energy, 4 quadrant reactive energy and requireed energy, and measuring 3 phase voltage, current, active/reactive power, power factor in real time accurately, and check and record loss of voltage, current, etc. It can implement remote and local meter reading, programming and other functions.

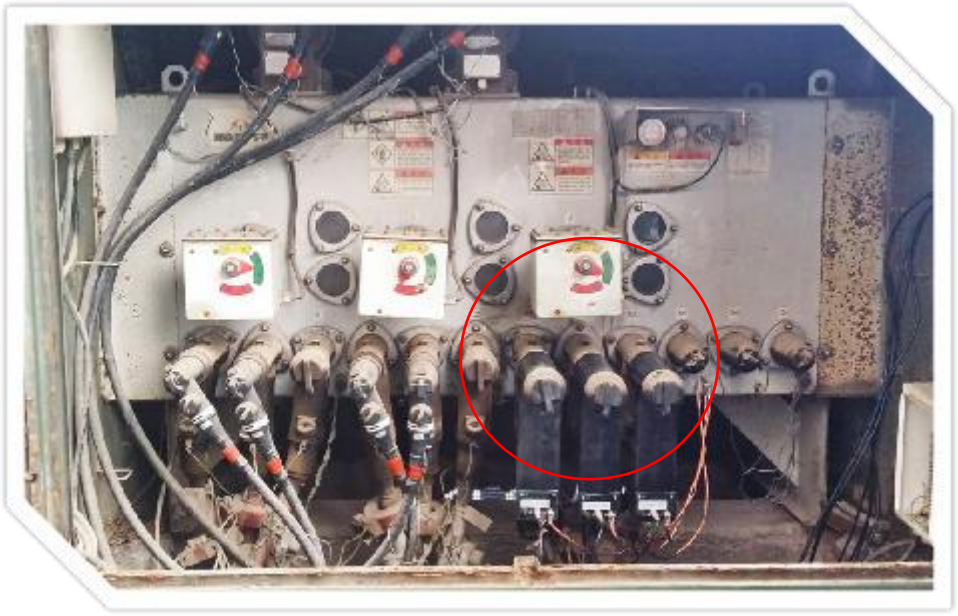

Figure 1 RMU Type HV Energy Meter Installation Example

- Composition Parts

During design stage, the fully insulated, enclosed, modular and compact features of RMU are thoroughly considered. As such, the design concept of part seperation is used, and the whole system is formed by below components:

- Plug-in type voltage transducer(c/w power acquiring unit): using plug-in package, plug-in at the back of RMU cable accessories plug/pull socket, shielded groud and fully insulated. Power acquiring unit is installed inside which can provide power supply to networking type Enery Meter

Figure 2 Cable Plug-in Type Voltage Transducer

- split-type current transducer: installed on incoming cable, no insulation issue

Figure 3 Split Type Current Transducer

- Small current input type energy meter: installed outside cable compartment, connecting with above mentioned voltage and current transducer, accomplish the task of energy metering, measuring and remote communication function

Figure 4 Three Phase Smart Energy Meter (Analog Input Type)

- Installation Method

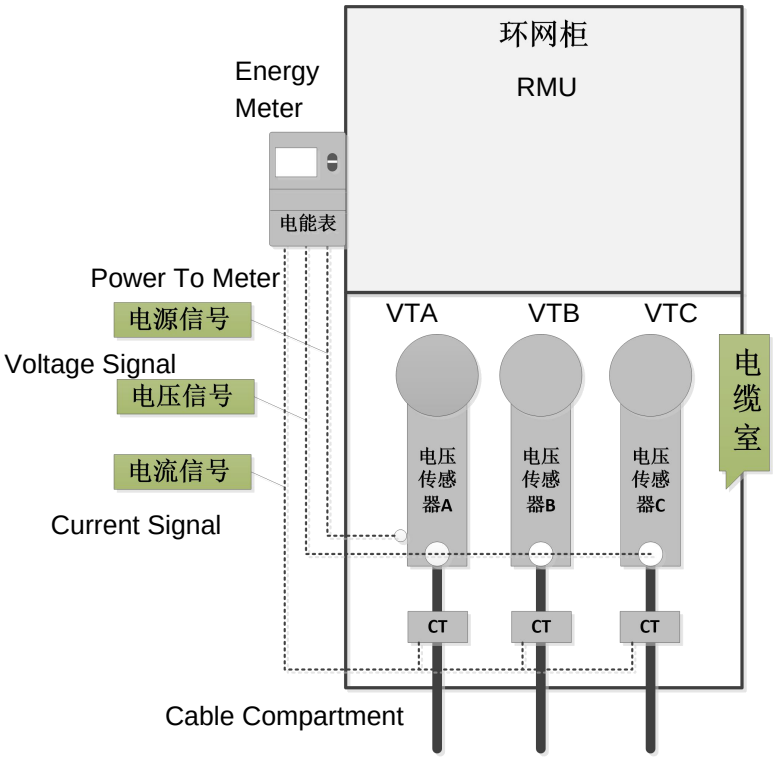

Figure 5 RMU Type HV Energy Meter Installation Method

- Suitable Application & Features ：
  - Adding Metering Point in Exisitng RMU

There is no metering point in most of the existing RMU , with the streamline of line loss management and audit, it become a realistic requirment to increase metering point in RMU.However, if traditional method is used, to add a metering point need to add a metering cubicle, apart from investment in facility it involves also space constraint/acquiring problem, the procedure is complicated, the implementation is difficult, and the project duration is long。And the appear of RMU Type HV Energy Meter, can perfectly solve this problem.Only install HV Energy meter in existing cable compartment, no need to increase RMU cubicle and occupy extra space, and also the plug-in type installation is simple, flexible, convinient and time saving.

Figure 6 Traditional Metering Solution(Adding Metering Cubicle)

Figure 7 HV Energy Meter Solution (Cable Accessories Plug in Type Installation)

  - New RMU Adding Metering Point

For new RMU, metering unit can be added during designing stage.At this moment the typical solution provided by RMU manufacturer is to add in one metering cubicle, and install in series with the RMU Cubicles.However the size and weight of the traditional metering cubicle is bigger and heavier, normally is double of the standard RMU Cubicle, which cause the required land area and size of whole unit increase significantly.If RMU Type HV Energy Meter is used, then we can save two RMU cubicles volume and weight, and save the required land area, reducing whole unit volume, and keep the standardized and compact style of RMU.

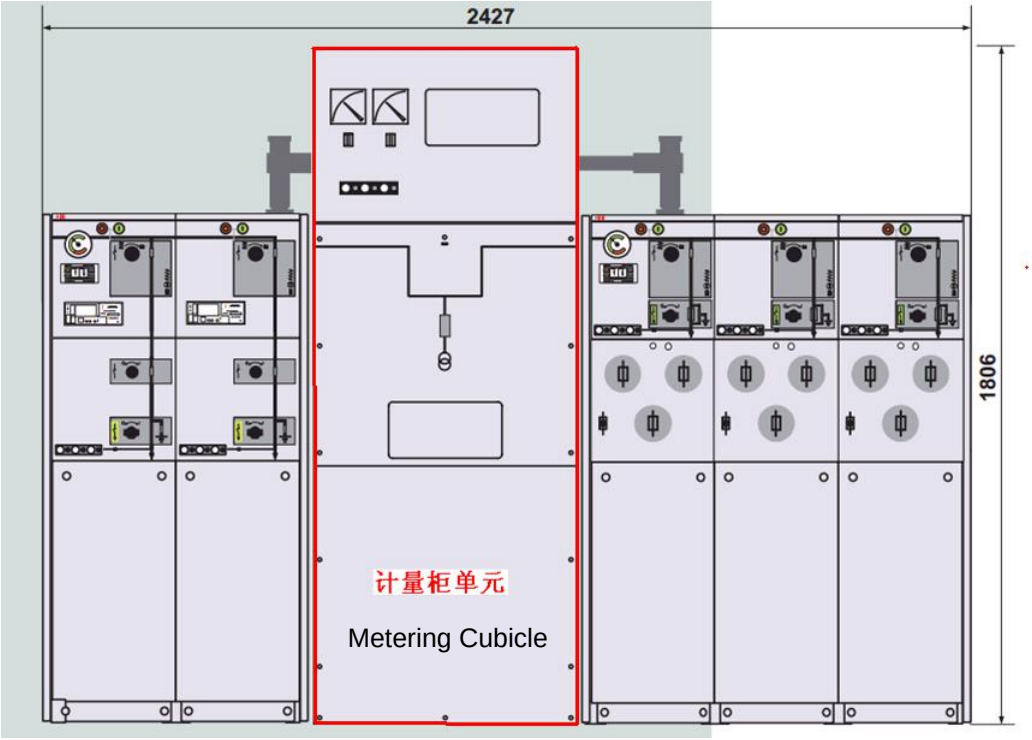

Figure 8 Typical Solution Provided by RMU Manufacturer

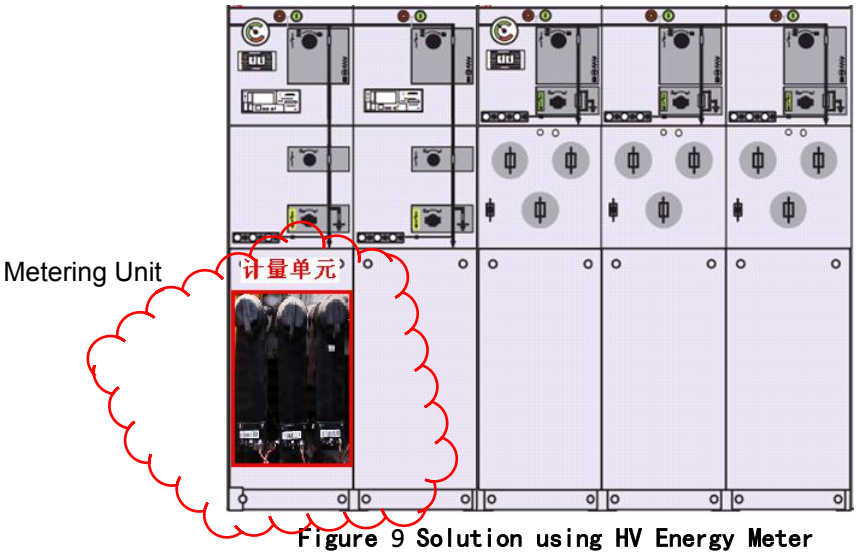

Figure 9 Solution using HV Energy Meter

➢ other features

RMU type HV Energy Meter adopts non-traditional type of voltage transducer, solve the potential safety problem of electromagnetic resonant from the source , reliability is higher. Compared with traditional metering devices, operating power consumed by HV Energy Meter is significantly reduced, and it saves a lot of copper, iron and other metal material and insultation material, is a typical green energy saving product.。

● Main Technical Parameters:

Rated Frequency;	50/60 Hz
Mesuaring Frequency:	45Hz～65Hz
Configuration:	3 phase 4 wires

Rated Voltage	3×5.7/10(11)kV
Rated Current	200A,250A,600A,630
Accuracy Class	Current Transducer class 0.2S Voltage Transducer class 0.2 Network Type Energy Meter class 0.5S
Working Temperature	-25℃～60℃
Suitable Application	10(11)kV High Voltage Metering in RMU for Distribution Network
Features	·composed by plug-in type voltage transducer, low power current transducer and network type energy meter ·provide flexible, compact solution to increase high voltage metering point for existing RMU ·provide overall lowest cost solution for RMU, Circuit Breaker to expand thier metering unit ·no potential safety problem casued by electro magnetic resonant, high reliability, energy saving.