



## **Electrical Power Transmission Substation Structures Steel Galvanized**

High quality Electrical Power Transmission Substation Structures Steel Galvanized is offered by China manufacturers Mao Tong. The working characteristics and responsibilities of smart substations make it necessary to have good interactivity.

### **Product Description**

#### **Electrical Power Transmission Substation Structures Steel Galvanized Structure:**

Intelligent substation system is divided into three layers: process layer, interval layer, station control layer. The process layer consists of intelligent equipment, combined unit and intelligent terminal composed of primary equipment and intelligent components to complete the substation electric energy distribution, transformation, transmission and measurement, control, protection, metering, status monitoring and other related functions.

According to the relevant guidelines and specifications of the State grid, the protection should be sampled directly, the protection with single interval should be tripped directly, and the protection with multiple intervals (bus protection) should be tripped directly.

#### **Composition:**

An intelligent component is a physical device that can be flexibly configured and contains one or more of the measurement unit, control unit, protection unit, metering unit, and condition monitoring unit.

Interval layer equipment generally refers to relay protection device, measurement and control device, fault recording and other secondary equipment, to achieve the function of using an interval of data and acting on the interval of a device, that is, to communicate with a variety of remote input/output, intelligent sensors and controllers.

The station control layer consists of subsystems such as automation system, station domain control system, communication system and time synchronization system, realizing the measurement and control function for the whole station or one device at the last time, completing data acquisition and monitoring control (SCADA), operation locking, synchronous phasor acquisition, electrical energy acquisition, protection information management and other related functions.



The function of the station control layer should be highly integrated, which can be realized in one computer or embedded device, or distributed in multiple computers or embedded devices.

### **Electrical Power Transmission Substation Structures Steel Galvanized Advantages:**

#### **1. Electrical Power Transmission Substation Structures Steel Galvanized can achieve good low-carbon environmental protection effect.**

In the smart substation, the traditional cable connection is no longer used in the project, instead of optical fiber cable, in a large number of various electronic equipment in the use of high integration and low power consumption of electronic components, in addition, the traditional oil-filled transformer has not escaped the fate of elimination, electronic transformer will take its place.

All sorts of equipment and improvement of connection means, effectively reduce the energy consumption and waste, not only reduce the cost, are actually reduces the substation of electromagnetic radiation within the pollution damage to people and environment, improve the quality of the environment to a great extent, realizes the substation performance optimization, make it to the environmental protection ability even more significant.

#### **2. Electrical Power Transmission Substation Structures Steel Galvanized has good interactivity**

The working characteristics and responsibilities of smart substations make it necessary to have good interactivity. It is required to have the function of feedback safe, reliable, accurate and meticulous information to the power grid.

Intelligent substation in the realization of the information collection and analysis function, not only can share the information in the internal, but also can be more complex and advanced system within the network between good interaction. The interactivity of smart grid ensures the safe and stable operation of power grid.

#### **3. Reliability characteristics of intelligent substation**

Reliability is one of customers' basic requirements for electric power. Intelligent substation has a high degree of reliability, which not only meets customers' needs, but also realizes the high quality operation of the power grid.

Because there is a system of transformer substation, prone to hold a general phenomenon, so the internal substation itself and all facilities with high reliability, such characteristics also requires substation needs to have the function of fault detection, management, only has the function can effectively prevent the emergence of substation fault, And after the failure can be quickly dealt with, so that the working conditions in the substation always keep in the best



state.

- (1) Optical fiber instead of cable, design, installation and debugging become simple
- (2) Analog input loop and switching input and output loop are replaced by communication network, secondary equipment hardware system is greatly simplified
- (3) Unified information model, avoiding protocol transformation, information can be fully shared
- (4) Enhanced observability and controllability, resulting in new applications, such as state monitoring, station domain protection and control

