



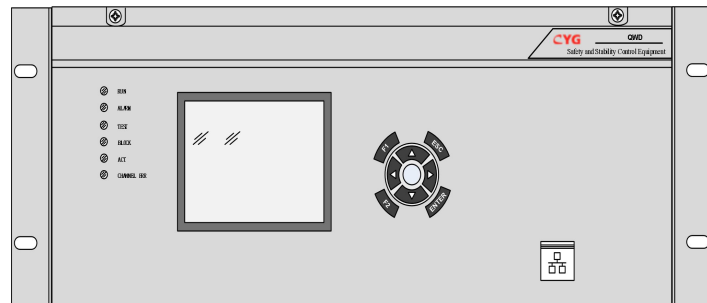
# QWD-MMB



## General Application

This equipment is used for system transient safety and stability control of multiple plant stations in a regional power grid or a regionally interconnected power grid. It is not only suitable for safety and stability control of a single plant station, but also suitable for transient stability control system of multiple plant stations in a large area.

QWD safety and stability control new energy executive station equipment includes a distributed stability control host QWD-MEC-G and a distributed stability control slave QWD-SEC-G, which are used together. The stability control new energy executive station shall have the ability to connect with 4 main transformers and 18 gathering line circuits.



## Feature

Item	Parameter
Performance	64-bit high performance dual-core processor, internal high speed bus and intelligent I/O ports
Hardware	Modularized hardware design, flexibly configurable, easy extension
Interface	The human machine interface (HMI) with a small control module (a 320×240-dot LCD, a 8-key keypad and 6 LED indicators)
Communication	Ethernet and RS485. Communication protocol: IEC60870-5-103/104, IEC61850
Analog	Support the protocol IEC60044-8, constantly measures and calculates voltage, current, and power.
Recording	Fault and disturbance waves, operation reports, supervision, control operation records and time tagged sequence of event.

## Functions

Item	Parameter
Measurement	Conventional CT/VT sampling method (up to 36 analog inputs) with AC AI module in using electrical cable
Configurable	Programmable analog input Programmable binary input Programmable software function
Function	Variable start and remote command start element Element on/off Judgement Criterion Fault Type Judgement Criterion Protection Tripping Input Abnormal Alarm Switch Position Signal Abnormal Alarm The Other Equipment Action Input Abnormal Alarm Self-diagnostic Device power supply supervision
Synchronization	Supporting IRIG-B and SNTP

## Specifications

### Measurement Range and Accuracy

Metering Item	Range	Accuracy
Phase range	0° ~ 360°	≤ 0.5% or ±1°
Frequency	35.00Hz ~ 70.00Hz	≤ 0.01Hz
Current(three phase 3lp)	0.05In<I<4.00In	±0.1%In, 0.05In~1.00In±0.1%, 1.00In~4.00In
Voltage(Phase 3Up, Phase-to-Phase 3Upp)	0.05Un<U<1.50Un	±0.1%Un, 0.05Un~1.00Un;±0.1%U, 1.00Un~1.50Un

### Auxiliary Power Supply

Reference	IEC 60255-1, IEC 60255-26
Rated voltage	88V~250VDC, 88V~250VAC
Variation	80% ~ 120%
Frequency	50/60Hz, ± 5Hz
Maximum interruption time in the auxiliary DC voltage without resetting the IED	0%Un,100ms; 40%Un,200ms; 70%Un,500ms; At the Un=DC220V
Gradual shut down / Start up	Class C (60s shut down ramp, 5 min power off, 60s start up ramp)
Ripple in the DC auxiliary voltage	Class A (15% of rated @200Hz, 220VDC)
Maximum load of auxiliary voltage supple	≤50W (normal state)

### Binary input

Reference	IEC 60255-1, Clause:6.10.5
Binary input number	Up to 52
Rated voltage	110VDC/125VDC/220VDC
“ON” value voltage	70% ~ 120% rated voltage
“OFF” value voltage	< 55% rated voltage
Maximum permitted voltage	120% rated voltage
Resolution of binary input signal	≤ 1ms
Resolution of SOE	≤ 1ms

## Specifications

### Binary output

Reference	IEC 60255-1
Max system voltage	380Vac, 250Vdc
Voltage across open contact	1000V RMS for 1min
Continuous carry	5.0A @ 380Vac; 5.0A @ 250Vdc
Short duration current	30A, 1s
Breaking capacity	0.60A @ 48Vdc, L/R=40ms 0.10A @ 110Vdc, L/R=40ms 0.05A @ 220Vdc, L/R=40ms
Pickup time	< 10ms
Dropout time	< 8ms
Dropout time	< 8ms