

1.Scope of Application

ZT-830 Series Intelligent Capacitor Controller adopts new generation of reactive power compensation Controller designed and developed by special power parameter acquisition chip and MCU processor, which is specially used to Control Intelligent Capacitor. The product features aesthetic appearance, easy installation and simple use. Man-machine dialogue is realized through LED digital tube display and Key operation. It can be connected with Intelligent Capacitor via 485 communication data cable.

Compliance Standard: JB/T 9663-2013; DL/T 597-1996

Main Characteristics:

1.1 Obtain voltage, current, power, power factor and other data through AC sampling.

1.2 The parameter values of power distribution are displayed dynamically, and set simply and fast, and the set paramets are not lost in case of power failure.

1.3 Automatically detect the number and capacity of Intelligent Capacitor and control the switching of Intelligent .Capacitor according to reactive power parameters of the power grid.

1.4 With the functions of over-voltage, under voltage, voltage warning, under-current, over-temperature and over- harmonic protection. When the power grid parameters exceed the set limits, the controller quickly cuts off the Capacitors that have been put into operation and locks the output to protect safe operation of the Capacitors and extend their service life.

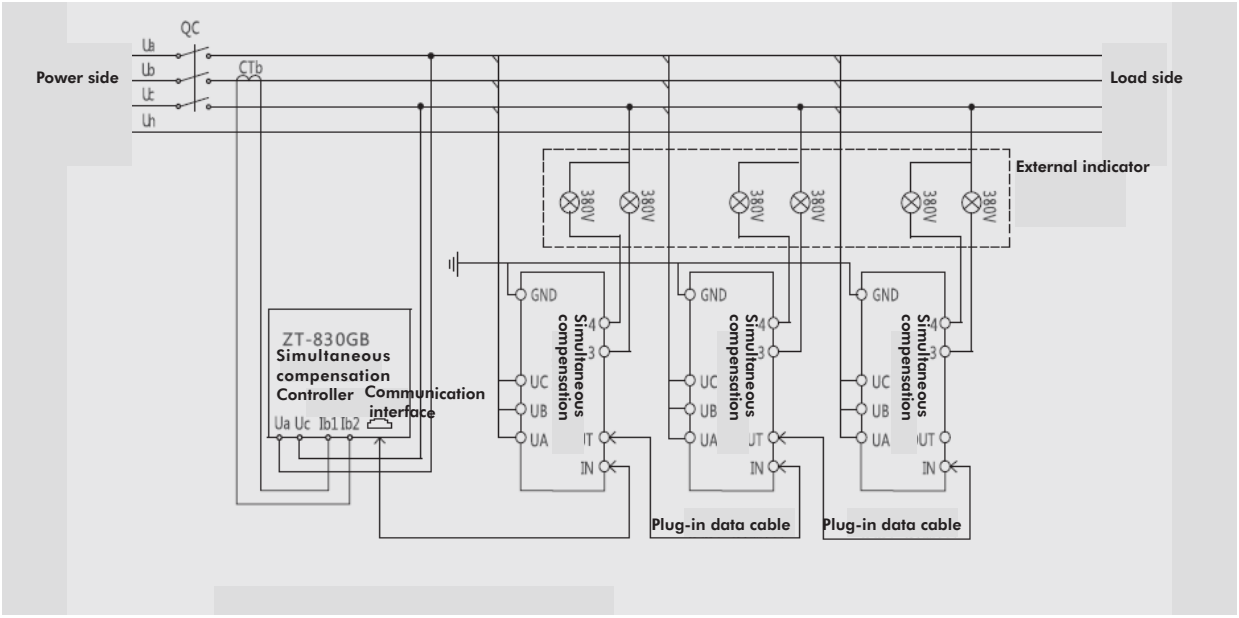
1.5 The comprehensive calculation is performed on voltage, current, power factor and reactive power, and the voltage return difference participates in the control judgment to make the compensation more accurate and prevent switching oscillation.

1.6 The above criterion values are sampled at multiple contacts within the action delay time, and the reactive power trend is judged according to the values of each contact, so as to avoid the judgment error and mis-touch caused by the single-contact sampling of the action contact of the conventional controller.

1.7 PC terminal data transmission and remote control can be realized via RS485 host computer communication function, and the Standard Modbus Protocol can be used.

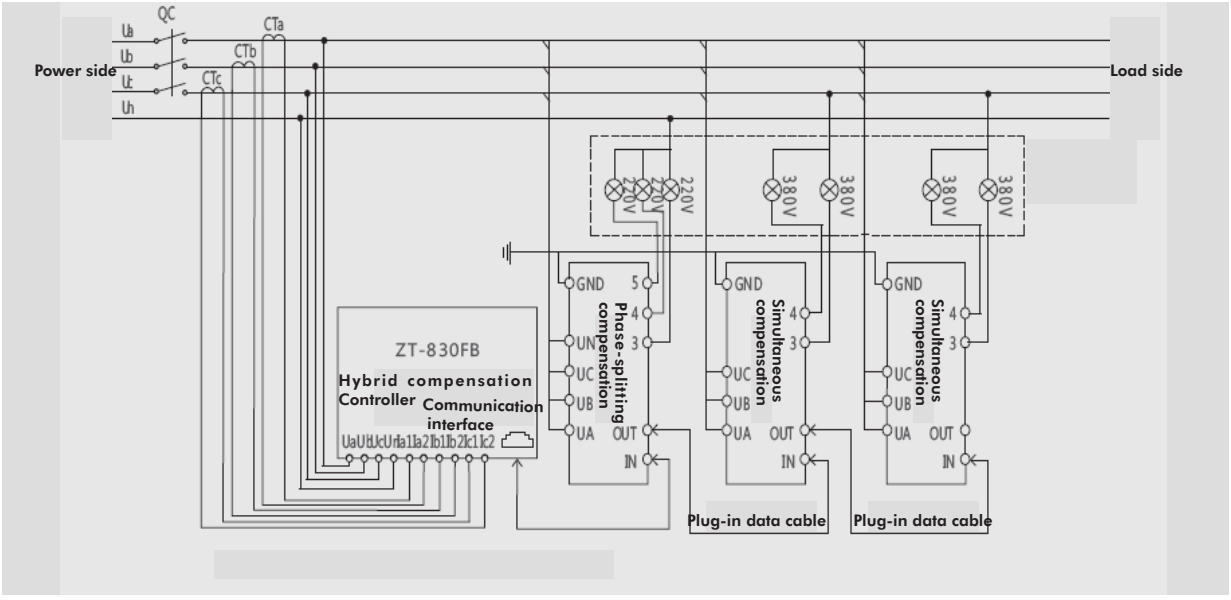
4.Controller Wiring Diagram

4.1 ZT-830GB simultaneous compensation wiring diagram



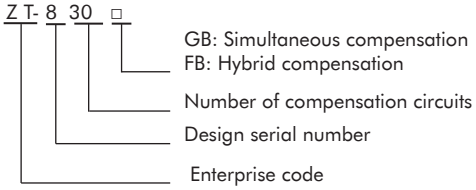
Note: When there is an external Controller, the installation of secondary 3CT is unnecessary.

4.2 ZT-830FB (Simultaneous compensation + phase-splitting compensation) hybrid compensation wiring diagram



Note: When there is an external Controller, the installation of secondary 3CT is unnecessary.

2. Product Model and Meaning



For example: Three-phase simultaneous compensation Controller: ZT-830GB
Hybrid compensation Controller: ZT-830FB

3. Main Technical Parameters

3.1 Measurement accuracy: Voltage ≤± 0.5% (Within the range of 80%~120% rated voltage);
Current ≤± 1% (Within the range of 50%~100% rated current);
Power factor ≤± 1.5%;
Reactive power ≤± 2%;

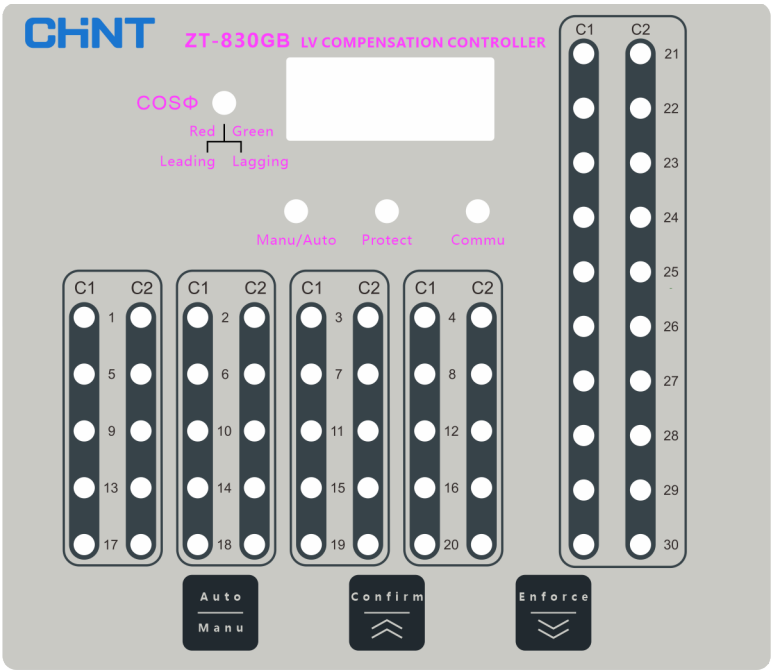
3.2 Output mode: R485 communication control output to control CHINT 's BAGB Intelligent Capacitor;

3.3 Power supply conditions: Working voltage: AC380V ± 20%
Rated frequency: 50Hz±5%
Power consumption: < 5W

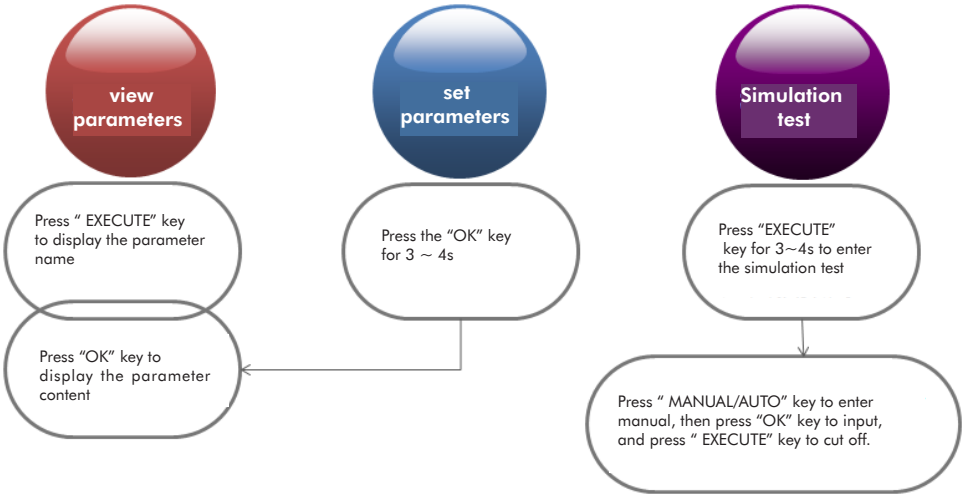
3.4 Number of networking Intelligent Capacitors:
ZT-830GB: Total number of simultaneous compensation Intelligent Capacitors ≤30 sets;
ZT-830FB: Phase-splitting compensation Intelligent Capacitors ≤ 10 sets,
Simultaneous compensation Intelligent Capacitors ≤ 20 sets .

3.5 Installation opening size: 113 × 113mm

5. Operation Interface and View Parameters



Key operation



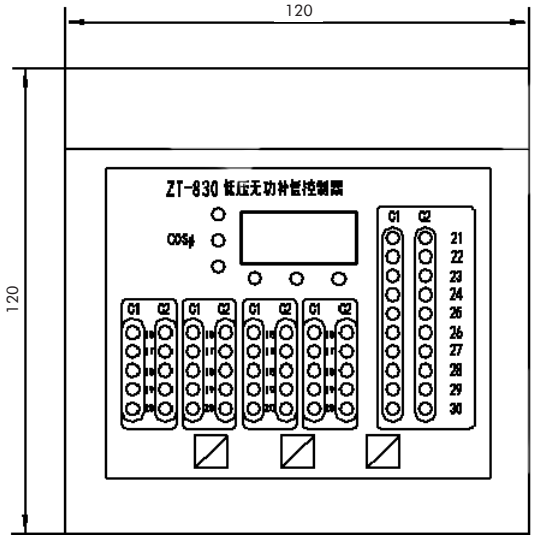
5.1Parameter names and contents displayed by 3-phase compensation controller (ZT-830GB)

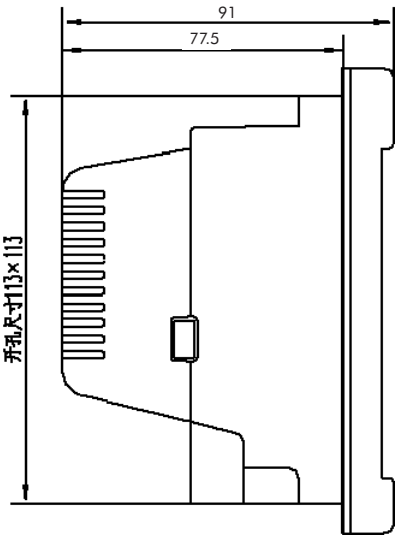
No.	Parameter names	Display contents (example)	Note
1	PF	0.988	3-phase average power factor
2	UAC	380.0	Voltage of phase AC (V)
3	IB	3.000	Secondary current of phase B incoming line (A)
4	QAC	1.72	Total reactive power shortage (kvar)
5	HAC	1.1	Voltage distortion rate (%)
6	SC**	0	0 refers to double circuit, 1 refers to single circuit

5.2 Parameter names and contents displayed by split-phase compensation controller (ZT-830FB)

No.	Parameter names	Display contents (example)	Note
1	PFA	0.988	Power factor of phase A
	PFB	0.988	Power factor of phase B
	PFC	0.988	Power factor of phase C
2	UA	220.0	Voltage of phase A (V)
	UB	220.0	Voltage of phase B (V)
	UC	220.0	Voltage of phase C (V)
3	IA	3.000	Incoming secondary current of phase A (A)
	IB	3.000	Incoming secondary current of phase B (A)
	IC	3.000	Incoming secondary current of phase C (A)
4	QA	1.72	Reactive power shortage of phase A (kvar)
	QB	1.72	Reactive power shortage of phase B (kvar)
	QC	1.72	Reactive power shortage of phase C (kvar)
5	HA	1.1	Voltage harmonic distortion rate of phase A %
	HB	1.1	Voltage harmonic distortion rate of phase B %
	HC	1.1	Voltage harmonic distortion rate of phase C %
6	HC**	0	0 refers to double circuit, 1 refers to single circuit

6. Overall Dimensions and Installation Dimensions





ZT-830 LV Reactive Power Compensation Controller

Opening Size 113×113

7. Ordering Instructions

- Please specify the model, specification and control mode of the product when ordering, for example:
Model ZT-830GB, 10 sets.

- Ordering model of ZT-830 Series Intelligent Capacitor Controller, three-phase simultaneous compensation mode, R458 communication control, and ordered quantity of 10 sets.