



LV REACTIVE POWER COMPENSATION DEVICE

PRODUCT CATALOGUE

BEIJING HYLITON POWER TECHNOLOGY CO.,LTD.



COMPANY INTRODUCTION

Beijing Hyliton Power Technology Co., Ltd. (Hyliton), is a leading manufacturer of products related to power transmission and distribution in China. Founded in 2000 in Beijing, Hyliton has been dedicated to promoting advanced technologies and products in the progress of China's upgrading and transformation. With 10+ years of experience in power products R&D, manufacture and marketing, Hyliton has accumulated a high reputation in the field, and is well-known for being sincere in business and creative in management. Nowadays, Hyliton hopes to develop potential international relationship and business, take the advantage of globalization to achieve win-win cooperation, and help people all over the world getting safer and more efficient power supply.



Low Voltage Reactive Power Compensation Unit

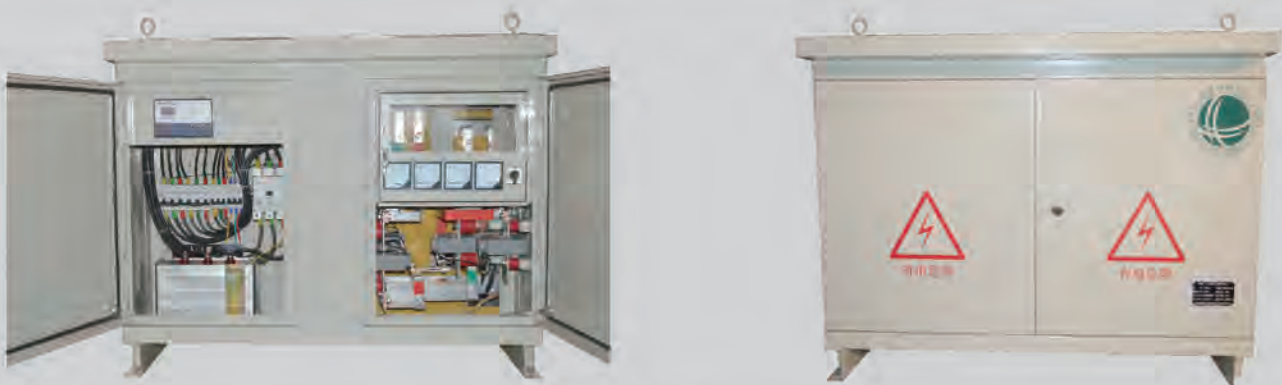
BRIEF INTRODUCTION

Low Voltage Reactive Power Compensation Unit <Model: JPD (ZPD) -0.4> serie is an integrated power distribution product gathering the functions of power distribution, measurement, protection, control and compensation, which installed at the low-voltage side of the transformers. It is consist of three parts i.e. switch compartment, measuring compartment and compensation compartment, and the main components include circuit breakers, metering and measuring current transformers, power meters, data collection terminals, distribution integrated control terminals, capacitor switching unit, and self-healing low voltage shunt capacitors, etc. Due to the advantages of power distribution, control, management, harmonics governance and reactive power compensation, the Low Voltage Reactive Power Compensation Unit has been widely used in the reconstruction project of power distribution system of city and new rural grid. This product can improve the power factor of low voltage distribution network, to decrease consumption, improve power quality at load side, and increase availability of transformer and transmission line. It plays an important part at the energy saving, loss reduction, increasing network safety and stability of power system, and improving user economic benefits, etc.

The ZPD series Power Compensation Units produced by our company are designed according to IEC and National Standards, which can operate reliably and safely in a variety of environmental conditions. They have been widely used in the low voltage distribution systems around the country, especially in the reconstruction project of new rural grid distribution system in Inner Mongolia, Gansu, Guizhou, Hubei and Hebei province.

- ◆ The ZPD series Power Compensation Units produced by our company are in accordance with the following standards:
- ◆ IEC439-1 < Low-voltage switchgear and controlgear ASSEMBLIES>
- ◆ GB7251.1-2005 < Low-voltage switchgear and controlgear ASSEMBLIES>
- ◆ GB/T15576-2008 <Low-voltage reactive power compensation ASSEMBLIES>

PRODUCT PHOTO



Stainless steel housing



Stainless steel housing

ENVIRONMENTAL CONDITIONS

Maximum daily temperature difference	30℃	Wind pressure	≤700Pa
Relative humidity (25℃)	Daily average ≤ 95% Monthly average ≤90%	Altitude	≤2000m
Irradiance (wind speed0.5m/s hour)	0.1W/cm2	Maximum icing thickness	10mm
Requirement of installation location	Outdoor, no harmful gases and steam, no conductive or explosive dust, non vibration and shock locations		
Seismic capacity	Ground horizontal acceleration 0.3g; ground vertical acceleration 0.15g; lasted three sine waves at the same time; safety factor ≥1.67		

TECHNICAL DATA

Rated voltage	0.4 kV	Rated frequency	50 Hz
Rated insulation voltage	660 V	Rated current	50,80,125,160,200,250, 315,400,500,630,800 A
Circuit breaker rated limit short Circuit breaking capacity	≥50 kA	Clearance	≥10 mm
Creeping distance	≥14 mm	Grounding mode	Neutral point grounding directly
Outlet switch loop quantity	1~4 loop	Compensation capacity	5~300 kvar , compensate 10%-40% of transformer
Pollution grade	III grade	Installation method	Single pole bracket installation, installed on transformer rack (U steel)
Inlet-outlet line connection mode	Side inlet side outlet and bottom inlet bottom outlet	Compensation mode	Phase splitting compensation/ 3 phase compensation/ combined compensation
Dynamic response time	<20 ms	Self discharge feature	Voltage descend to below 50V in 1 min after removal
Maximum switching grade	12 grade		

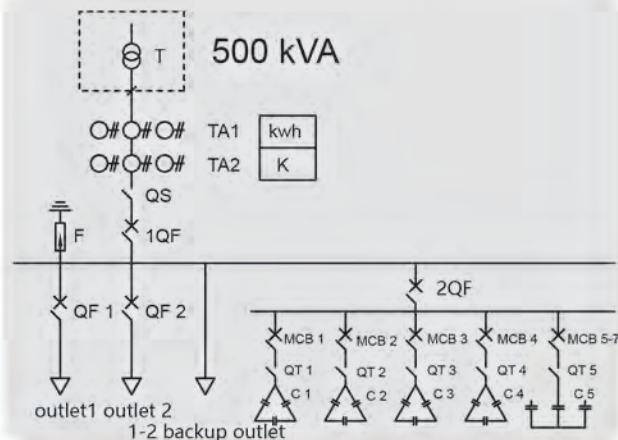
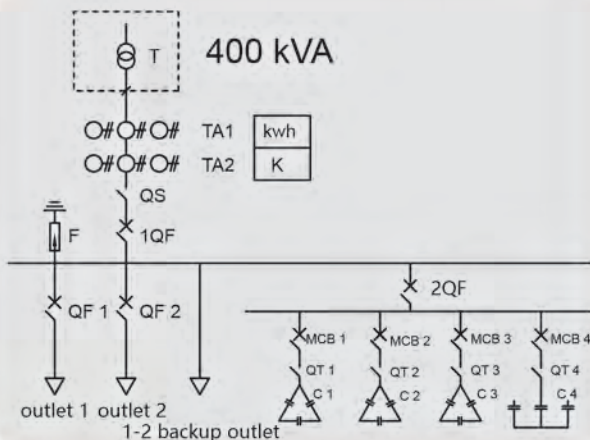
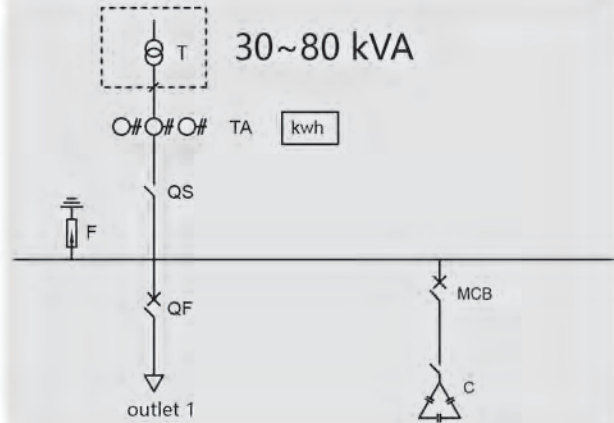
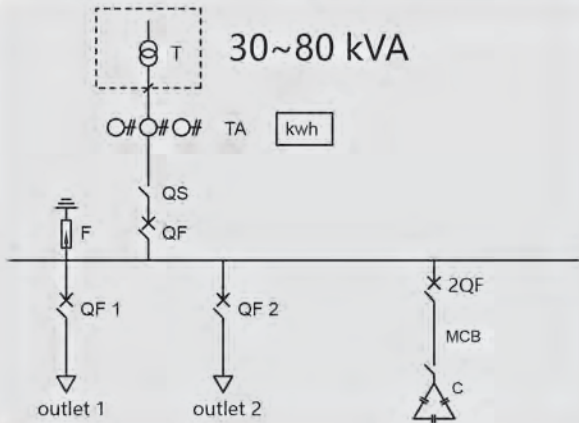
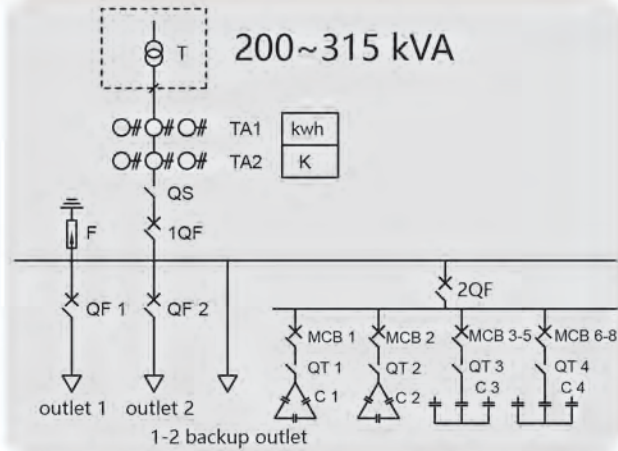
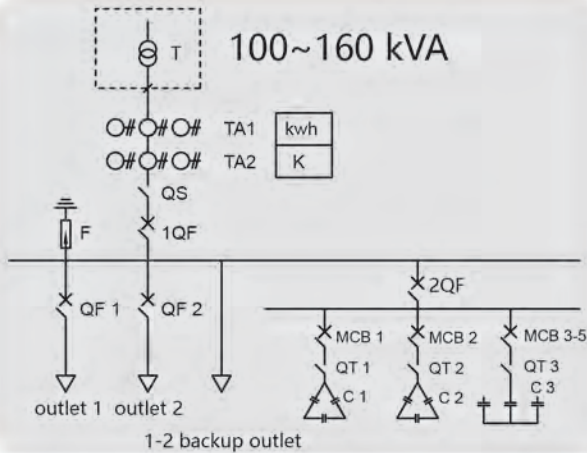


SMC housing

FEATURES

- ◆ Integrated energy metering and reactive power compensation in one, to improve equipment utilization and shorten payback period;
- ◆ No operating over voltage, and no arc reignition in switching process; can be switching frequently, once arrival for multiple compensation, can realize phase splitting compensation, 3 phase compensation and combined compensation; the equipped reactor can filter high harmonics;
- ◆ With complete protection: short circuit, phase loss, overvoltage, undervoltage, harmonic protection, etc.;
- ◆ Convenient to set each parameter, quit operation automatically when there is an external fault, resume operation automatically after being powered;
- ◆ Reduce line losses, increase effective output capacity of distribution transformer, so as to reduce the grid burden; optimize the quality of electricity, including raising the voltage passing rate, reducing voltage fluctuation, suppressing voltage flicker, improving safety and reliability of grid operation;
- ◆ At the 3 phase unbalanced position, it can achieve phase splitting reactive power compensation, to improve the imbalance;
- ◆ The capacitance can be configured at random, the unit will select the capacitor combinations automatically based on the principle of "best compensation, minimum switching".

TYPICAL SCHEMATIC DRAWING



- Without special instructions, outlet circuit less than 500kVA should be configured by not more than 2-circuit outlet, 500kVA above by not more than 3-circuit, the outlet rated current of each circuit should be configured with dispersion coefficient of 0.8 (80% rated current of inlet switch).

- ◆ Stainless steel housing, depth of 480mm, 500 mm, 530mm, 550mm, 580mm and 600 mm optional for small and medium capacity unit, only 600mm depth available for 500kVA or above unit.
- ◆ If the user has special requirements of the housing dimensions or components configuration, it can be customized according to the user' s requirements.

SMC HOUSING

Transformer capacity (KVA)	Housing dimensions(W×H×D) mm	Inlet switch rated current (A)	Maximum outlet loop quantity	Compensation capacity	Maximum compensation loop quantity	Compensation mode (suggested)
30-50-80	600X1000X640	50-80-125	2	No less than 10% compensation	1	Fixed capacity co comp.
100-160	1000X1000X640	160-250	4	30% compensation	3	2co 1sep auto comp.
200-250-315	1200X1000X640	315-400-500	4	30% compensation	4	2co 2sep auto comp.
400	1200X1000X640	630	3	30% compensation	4	3co 1sep auto comp.
500	1200X1250X640	800	3	30% compensation	5	4co 1sep auto comp.
600-630	1400X1250X640	1000	4	30% compensation	6	4co 2sep auto comp.
800	1600X1200X640	1250	4	30% compensation	7	5co 2sep auto comp.

STAINLESS STEEL HOUSING

Transformer capacity (KVA)	Housing dimensions (W×H×D) mm	Inlet switch rated current (A)	Maximum outlet loop quantity	Compensation capacity	Maximum compensation loop quantity	Compensation mode (suggested)
30-50-80	600X1000X600	50-80-125	2	No less than 10% compensation	1	Fixed capacity co comp.
100-160	1000X1000X600	160-250	4	30% compensation	3	2co 1sep auto comp.
200-250-315	1200X1000X600	315-400-500	4	30% compensation	4	2co 2sep auto comp.
400	1200X1000X600	630	3	30% compensation	4	3co 1sep auto comp.
500	1200X1250X600	800	3	30% compensation	6	4co 2sep auto comp.
600-630	1400X1250X600	1000	4	30% compensation	6	4co 2sep auto comp.
800	1600X1200X600	1250	4	30% compensation	7	5co 2sep auto comp.



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