



6 Hybrid Three-phase Unbalanced Automatic Regulating Device Series (HY-HSPC)

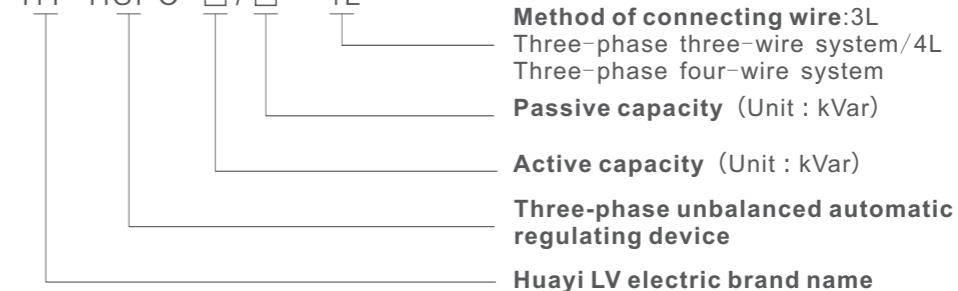
comprehensive manual of power quality products
hybrid three-phase unbalanced automatic regulating device
series (HY-HSPC)

Hybrid Three-phase Unbalanced Automatic Regulating Device Series

HY - HSPC hybrid three-phase unbalanced automatic regulating device is made of electricity electrical three-phase unbalanced automatic adjustment module and intelligent passive three-phase unbalanced automatic adjustment module. The device can satisfy the user to the dual requirement of reactive power compensation and three-phase unbalanced, has the characteristics of excellent balance adjustment effect, low power consumption, high cost performance, etc.

MODEL

HY-HSPC-□/□ - 4L



PRODUCT FEATURE

Powerful functions

- Three-phase unbalanced compensation
- Capacitive and inductive reactive compensation
- Filter low-order harmonics

Response quickly

- The total response time $\leq 10\text{ms}$

Man-machine coordination

- Real-time display waveform and data of power quality
- Waveform and data comparison before and after adjustment

Better reliability

- The core components are imported
- Self-detection, fault diagnosis, self-recovery function
- Overvoltage, under voltage, over temperature, overload and other protections

Intelligent monitoring

- Multiple communication interface (RS485/RS232 /WIFI/ bluetooth), standard communication protocol
- PC, mobile phone can monitor equipment status

Excellent performance

- Unbalanced compensation $< 3\%$
- Power factor: 0.99
- Current distortion rate $< 5\%$

Flexible installation

- Support pole-mounted and horizontal mounting

High performance

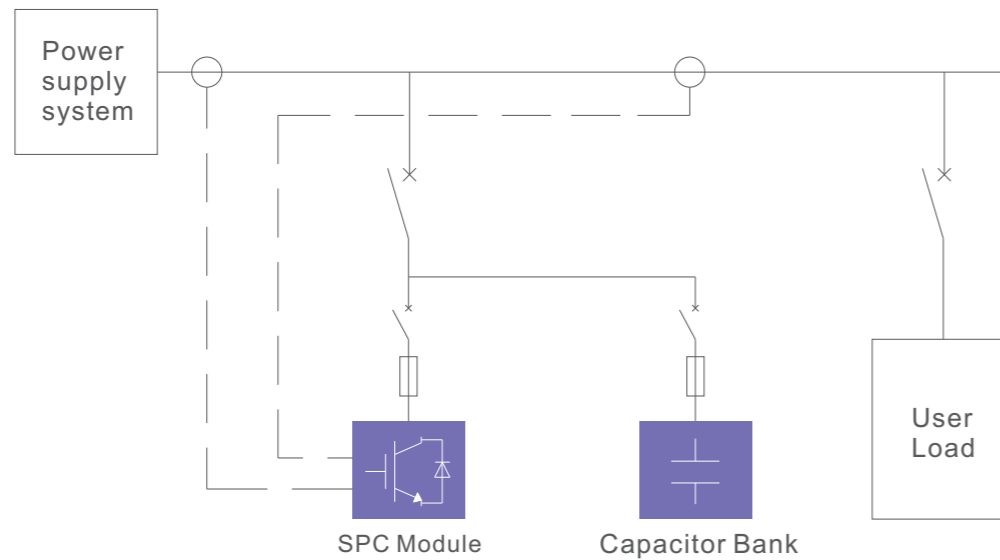
- Active eliminates the phase step of passive output, improve passive output characteristics

Easy to install, debug and maintain

- Reasonable structure design, easy to operation and maintenance
- Phase sequence automatic identification, no need to distinguish positive sequence
- The current transformer direction can be automatically identified

WORKING PRINCIPLE

HY-HSPC Hybrid three-phase unbalanced automatic regulating device series is made up of SPC modules and capacitor group, input capacitance between phase to phase or phase to ground, forms asymmetric compensation admittance network, adjusts the unbalanced active current of the basic quantity, and conducts reactive compensation and harmonic filtering at the same time. Then the SPC module dynamically adjusts the remaining variation to achieve rapid and stable of three-phase current load imbalance.



TECHNICAL PARAMETERS

Item	Parameters
Rated Voltage	AC400V ± 20%
Rated frequency	50Hz
Method of connecting wire	three-phase three-wire/three-phase four-wire
Apparatus capacity	30/70kVar, 30/120kVar, 50/100kVar, 50/120kVar
Unbalanced compensation	Imbalances < 3%
Objective power factor	-1~1 (can be set)
The filter scope	supports harmonic current compensation for low times (3, 5, 7, 9, 11, 13).
Fast response time	< 50us
Total reponse time	< 10ms
Active power loss	< 3%
Noise	≤ 65dB
In parallel operation mode	up to 10 sets in parallel operation
IP Grade	IP54
Cooling mode	intelligent air cooling
Protection function	overvoltage, undervoltage, over temperature, overload, phase loss, short circuit, lightning protection, anti-jamming and other hardware and software protection
Installing form	derrick installation, H rod installation, F rod installation
Communication function	RS485/232, Ethernet, WIFI/ bluetooth, GPRS (optional); use Modbus protocol (optional for other protocols)
Display function	touch liquid crystal display
Ambient temperature	-10°C~+40°C
Storage Temperature	-20°C~+70°C
Altitude	≤ 2000m, Other elevations are used according to the national standard

COMMON SELECTION CONTROL TABLE

The total capacity /kVar	Specifications and models	Active capacity /kVar	Passive capacity /kVar	The total interphase active current transfer ability/A	Total reactive power compensation /kVar
80	HY-HSPC-30/50	30	50	45~67	80
100	HY-HSPC-30/70	30	70	45~76	100
	HY-HSPC-50/50	50	50	75~97	100
150	HY-HSPC-30/120	30	120	45~97	150
	HY-HSPC-50/100	50	100	75~119	150
175	HY-HSPC-50/125	50	125	75~130	175