Hyrbid Power Factor Correction

✔ Cost Effectiveness

- Low Cost
- High Performance
- Ultra-compact SVG modules
- Fastest switching frequency 25.6kHz
- Lowest Power Consumption ≤ 2.5 %
- Leading Thermal Technology

✔ Advanced Performance

- Harmonic Control
- Three-phase load balancing
- Low noise

⚙ Technical Parameter

Rated Voltage	400V(300~456V)
Rated Capacity	50kvar~900kvar
Main Frequency	50/60Hz±5%
Circuit Topology	Three-Level
Multi-Compensation Mode	Spectral wave, reactive power, three-phase load imbalance compensation
Filtering Range	2nd to 51st odd harmonics (by order or full compensation)
Harmonic Reduction Rate	≥ 97%
Filtering Performance	Typically, THDi ≤ 5% at rated loads
Target Power Factor	System PF > 0.98 after compensation (at rated capacity)
Three-Phase Load Balancing Effect	≤ 5% to mitigate negative and zero sequence currents
Neutral Line Filtering Capability	3 times the rated filtered current for 4-wire devices
SVG Switching/control frequency	25.6kHz
SVG Response Time	≤5ms
Capacitor Control Interface	16 ways
Capacitor switching	Thyristor, contactor
Capacitor Response Time	≤1s
System Active Loss	≤2.5 per cent
Output Current Limit	Automatically limited to 100% output of rated capacity
Control Algorithm	FFT, Adaptive Control Algorithm, Fast Fourier (FFT) and Reactive Power Algorithm
Controller	DSP+FPGA
Protection	Hardware protection, software protection
Control Connections	Electrical Connections
Human Machine Interface	4.3-inch / 7-inch / 10-inch touch TFT LCD HMI
Noise	<60db (<45db at low speed operation)
Installation Method	Embedded (rack), wall-mounted, floor-mounted
Protection Level	IP43 max
Cooling Method	Speed controlled intelligent air-cooled cooling PWM fan
Colour	RAL 7035 Industrial Grey
Ambient Temperature	-20~55℃
Relative Humidity	95% max, no condensation
Installation Height	Rated capacity at altitude ≤2000m, appropriate load shedding at altitude >2000m
Qualification	CE,IEEE61000, Type test report, ISO9001:2015
Standard Compliance	IEEE 519, ERG5/4
Communication Protocol	Adopts Modbus RTU remote communication protocol and TCP/IP protocol; Two way RS485 and CAN bus, support mobile phone APP operation, support Ethernet