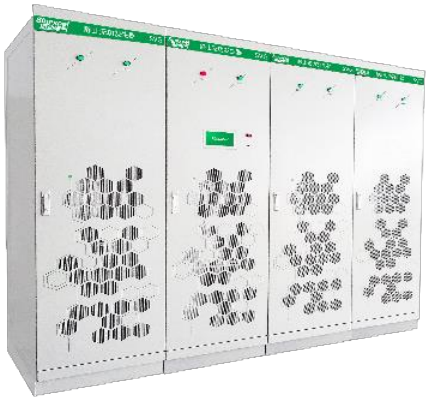
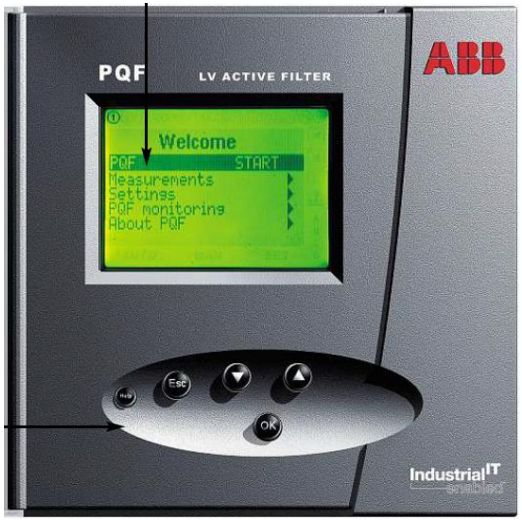
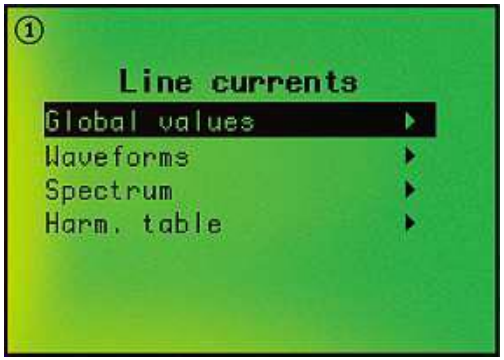
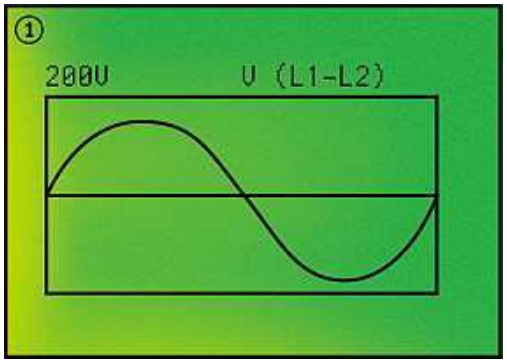
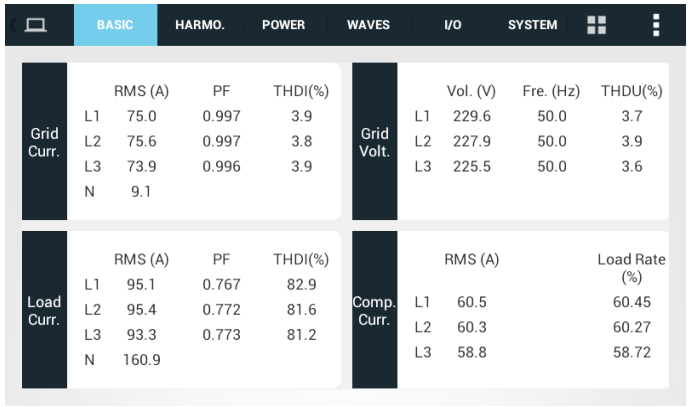
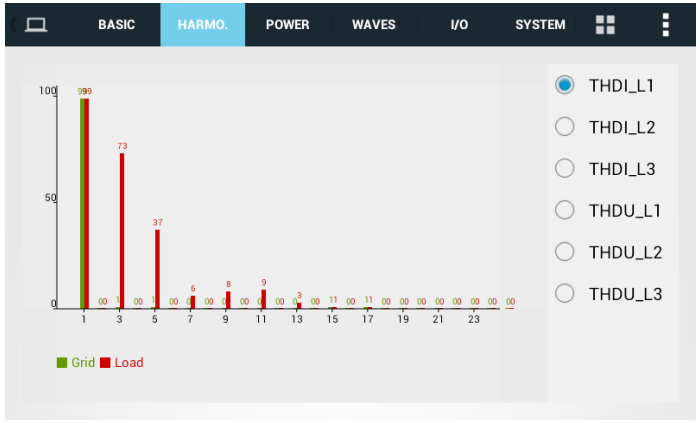
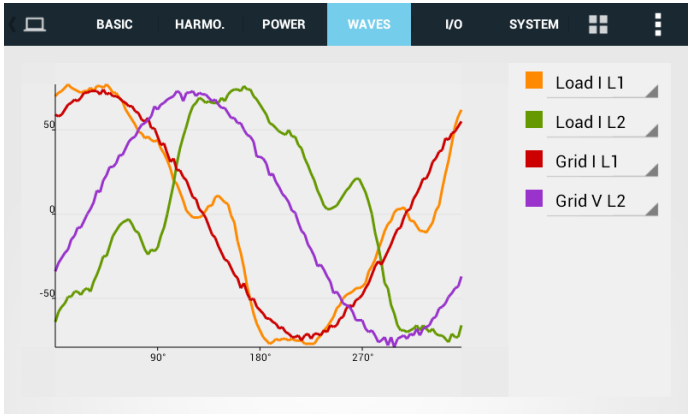
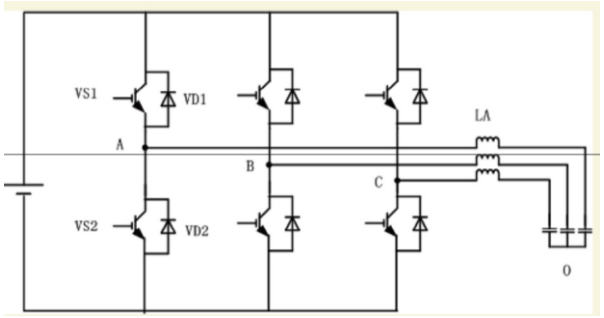
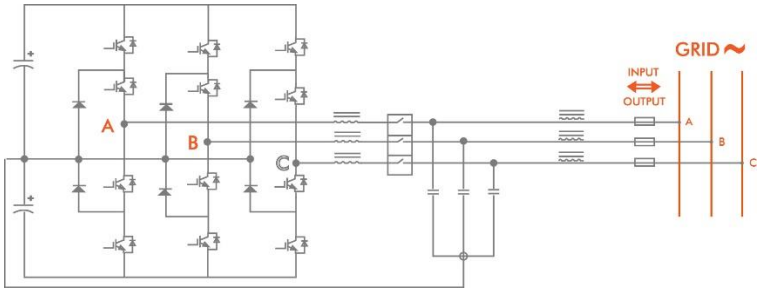
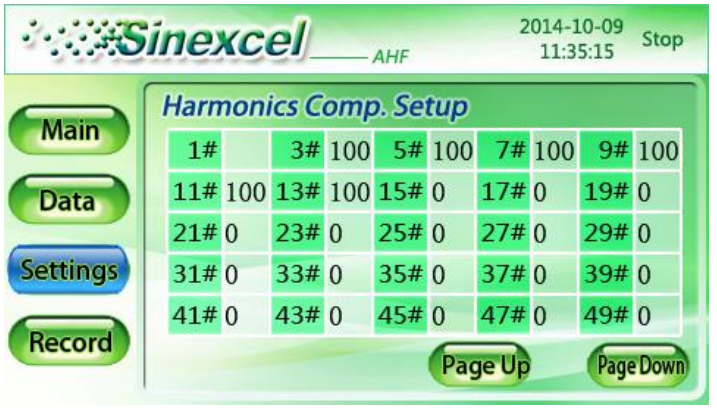
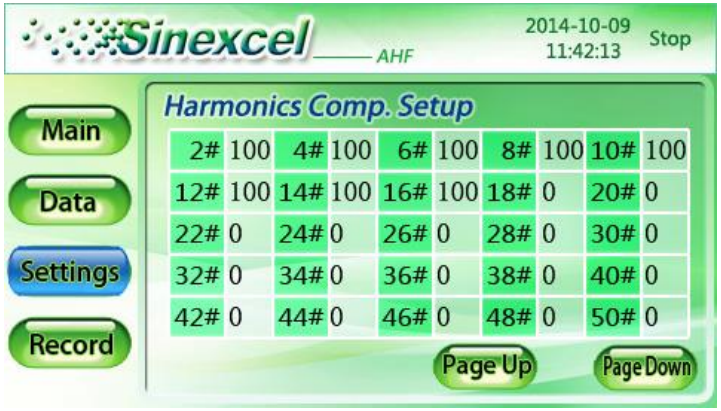
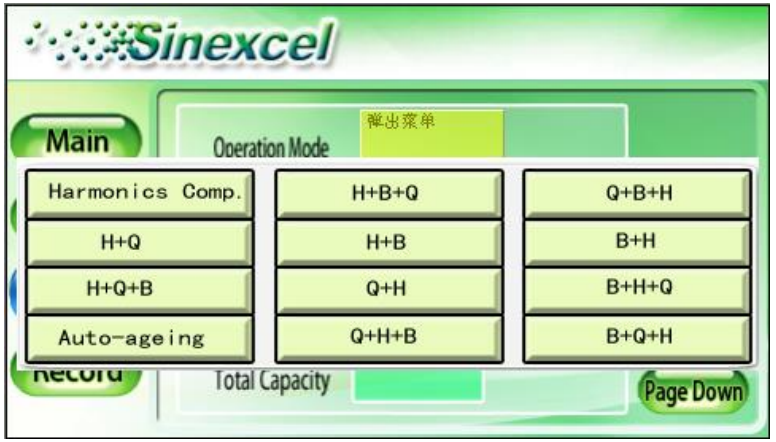
Items	ABB	Sinexcel	Conclusion
Module capacity	Single module capacity: PQFS: 30/45/60/70/80/90/100/120A	Single module capacity: 5/10/15/25/35/50/60/75 /100/150A	Sinexcel AHF has the most complete module capacity in power quality business so it is more flexible on choosing single module capacity. With different combination, it can meet various requirements of different projects.
Mounting, dimension and weight	Wall-mount enclosure Dimension: 585x310x700mm Weight: 120kg	Both rack mount and wall mount Dimension: Smallest: 440x470x150mm (25A/35A module) Largest: 500x510x270mm (150A module) Weight: Lightest: 18kg (25A module) Heaviest: 48kg (150A module)	Sinexcel is the first company in the world to invent modular design for AHF. So Sinexcel has the most compact module and most flexible solution.
Parallel connection	Maximum 4 units can be combined	Could unlimited parallel connection 	Sinexcel is first canpany in the world to design unlimited parallel connection

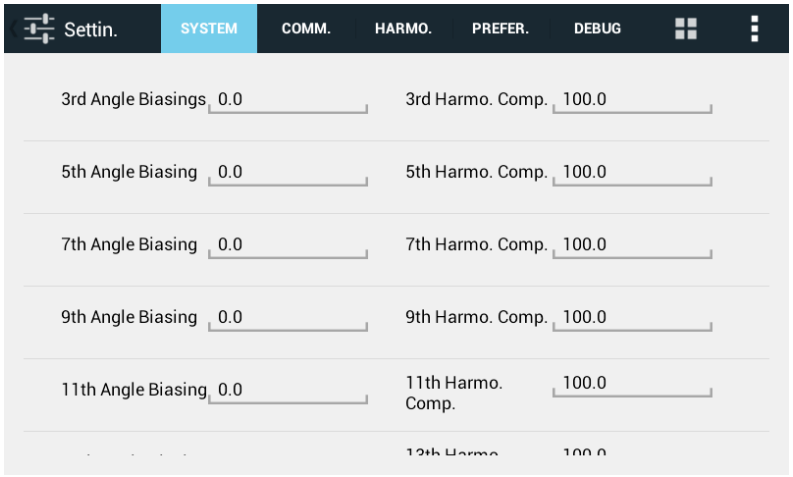
Monitor interface	LCD controller and display    	7 inch or 4.3 inch colorful touch HMI screen    	Much smarter HMI monitor for Sinexcel products. Comparison for before and after compensation performance of each individual harmonic order could be even shown on the monitor. You can clearly see the value of THDi. Also waveform of before and after compensation and spectrum on the same screen with different color. Multiple chooses about display, Grid load or compensation's parameters.

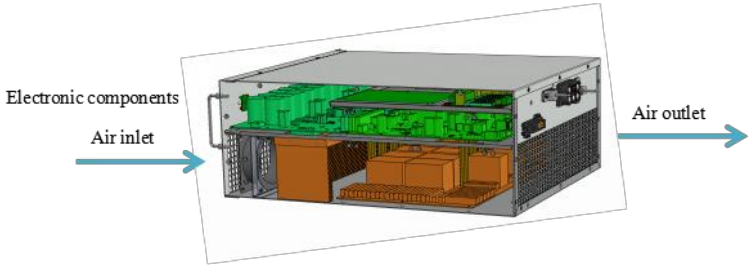
Circuit topology	2-level topology 	3-level topology 	Main advantages of the 3-level topology are: 1. Lower the losses of IGBT. IGBT could switches much faster and has longer lifetime. 2. Smaller output current ripple to improve performance and reduce the internal filter requirement. Three-level solution is characterized by reduced circuit losses and higher efficiency, thus supporting energy-saving concepts. If you want to know more 3-level topology technology, please connect with us.
Switching frequency	16KHz	Average 20KHz ,the highest frequency up to 35KHz	
Altitude	1,000m /derating up to 4,000m, 1%/100m	1,500m /derating up to 4,000m, 1%/100m	
Noise level	69dB	<56dB	
Response time	300us	<50us	

Ability for compensation harmonics	2nd-50th harmonic orders (20 orders selectively for 3 wire and 15 orders for 4 wire)	Filter harmonic from 2nd to 50th order selectively and simultaneously.   	Sinexcel AHF is more flexible on harmonic compensation.

Function sequence	Harmonic compensation and Load balancing mode	Up to 12 working modes including different priorities and different combinations for “harmonic compensation”, “power factor correction” and “3-phase load balancing”.  (Different combinations represent different priority. e.g. the combination of H+Q+B means preferential compensation of harmonics, then reactive power, and three-phase imbalance; H+B+Q means preferential compensation of harmonics, then three-phase imbalance, and reactive power; mode 0 means sole compensation of harmonics, Q+H means preferential compensation of reactive power, and then harmonics compensation.)	With 12 selective working modes, Sinexcel AHF could combine three independent functions (Harmonic, PFC, Load balancing) for any system demand.
Reactive power compensation settings.	Power factor can be programmed from 0.6 lagging to 0.6 leading.	Power factor can be programmed to 1 lagging to 1 leading.	With enough capacity, Sinexcel AHF could not only eliminate all the harmonic but also could improve PF to 1.

Input	Input voltage and frequency: 380V-415V; 50/60Hz-±5%	Input voltage and frequency: 228V-456V (380V -40%~+20%), 45~63Hz	Sinexcel AHF have stronger self-adaption ability both for voltage degree and frequency range, which means that it could solve problems under more strict situations.
Cabinet Capacity	Maximum 4 units can be combined Maximum 480A with 4 units.	 Flexible type cabinet Plug type cabinet	Maximum one cabinet 750A or 500kVar.

Parallel system	Maximum 4 units can be combined		Sinexcel cabinets use FACTS (Flexible Alternative Current Transmission System) technology. Flexible to integrate both AHF, and SVG, for different power rating modules. Flexible for both top and bottom cable entrance. Flexible to set bus bar at the back or side. Flexible for more capacity option. Able to connect **in parallel unlimitedly** between cabinets.
Harmonic compensation setting	Not equipped.		Adjusting angle biasing, can make compensation accurately.

Air flow design	Don’t have independent air flow design	 The top layer is the electronic components like DSP and chips. And the bottom layer is the IGBT, inductors and the heat sink. It’s designed to protect the micro electronic components from the dust and the heat elements.	Perfect design for: Heat dissipation Dust prevention
Compensation algorithm	FFT algorithm	Sinexcel AHF support 3 kinds of algorithms Intelligent FFT, FFT Instantaneous reactive power algorithm.	Intelligent FFT is a unique algorithm invented by Sinexcel. Intelligent FFT can self-study the system impedance to avoid system resonance by gradually increasing AHF capacity to mitigate system harmonic.

Communication		Communications ports have RS485 and Ethernet port(RJ45),the protocols use Modbus(RTU).	our HMI have integrate all software function that users could setting the parameters of AHF, we don't need the software in the PC to Debug and setup.And another function is send Email, you can see the parameters of operation every week and month or year
3P3L and 3P4L module type		Same module for 3P3L and 3P4L	3P3L and 3P4L have same module. If you want to change the phase condition, needn't to change the cabinet or add any conponents.
Components Attribute		Could as the components installed in all kinds of devices,become a part of the system	Could as the components installed in all kinds of devices