

ABB Drives for Water and Wastewater

ACQ550 20 to 550 HP, 18 pulse solution



A reliable system is critical to protecting, supplying and recycling water. The world trusts you to make good decisions and you take that responsibility seriously. We'll help optimize your system to run efficiently and provide the value and dependability you demand.

Who you choose matters.



Power and productivity
for a better world™



When you're required to meet IEEE-519, harmonic mitigation is a concern. ABB has a portfolio of solutions to fit your specific needs. The ACQ550, which leverages ABB's patented swinging choke technology, harmonic filters, 18-pulse drive packages and our Ultra-Low Harmonic drives, ABB has a solution for your power system.

The ACQ550 18-pulse solution helps you meet IEEE-519 by maintaining harmonic current distortion below 5%. This solution is available in a variety of configurations with a broad selection of power and control and includes an integral input disconnect with either a circuit breaker or a disconnect with fuses.

Highlights

- Current distortion limited to less than 5%, while improving true power factor. This allows you to meet IEEE-519 2014 guidelines and minimize power requirements.
- Individually fused multi-pulse input bridges
- Phase shifting auto-transformer and coordinated input bridge balance reactors for improved input current waveforms under a variety of line conditions
- Single main disconnect (circuit breaker or disconnect switch with fuses), mechanically interlocked with enclosure door and lockable in the off position with up to 3 padlocks for ease in local Lock-Out, Tag-Out safety implementation
- 100 kA short circuit current rating available up to 480 VAC
- UL 508A labeled for use on a majority of power distribution systems to meet industry requirements
- Drive Control Panel (keypad) accessible without opening enclosure door for improved personnel safety

Saving Cost

- Reduces site installation costs with an integrated design
- Eliminates complexity of adding external transformers, reactors, filters or traps, taking up less floor and wall space
- Improves overall electrical system efficiency
- Extended drive warranty available when commissioned by local ABB Certified Start Up technician

Voltage and power range

- 20 to 550 Hp 3-phase, 480 V

Available Configurations

ACQ550 18-Pulse Drive packages are available in a wide variety of configurations. **Contact your local ABB Representative to learn more.**

Some common examples are listed below:

- NEMA 1, 12 & 3R Enclosures
- Input circuit breaker
- Disconnect with fuses
- 2 Contactor bypass system
- Customer interface devices, pilot lights, meters, push buttons, etc.

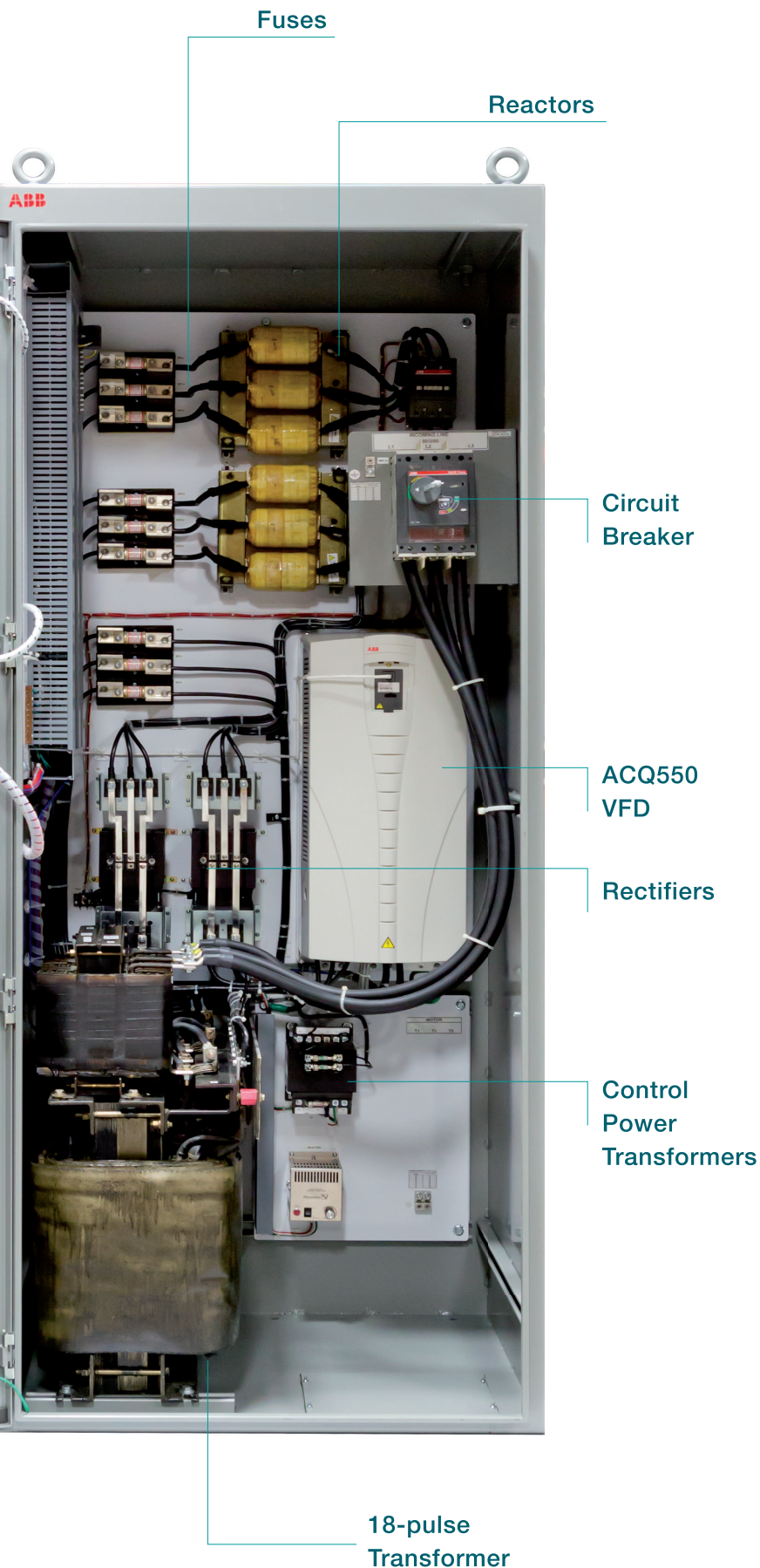
Cooling Fans

Keypad

Operation Devices



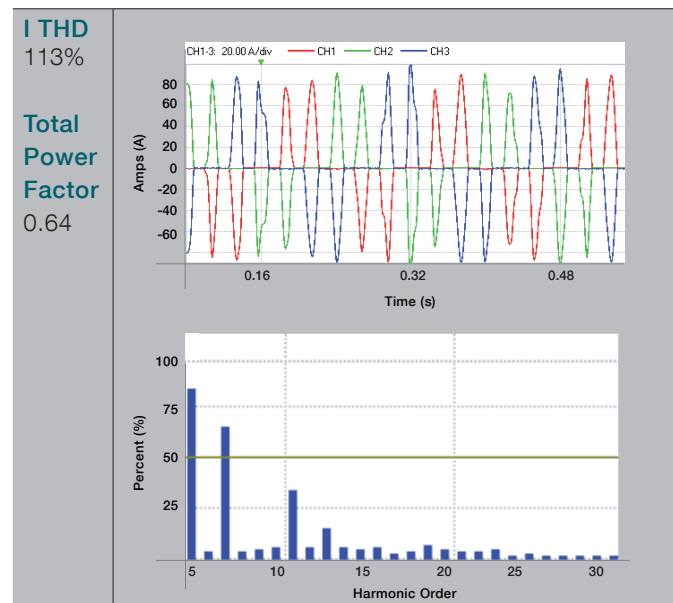
Air inlets with filters



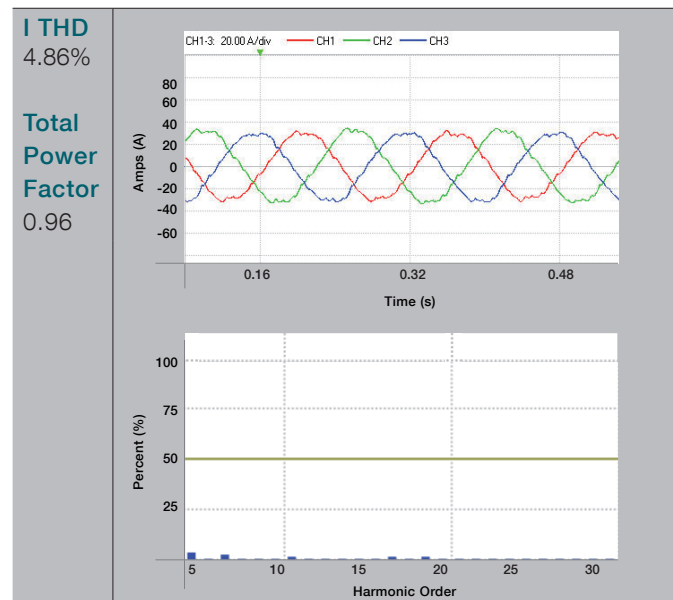
Technical Performance Comparison

The following graphics indicate the actual level of harmonics distortion produced by a 6 pulse drive and 18 pulse drive. Test results confirm that the ABB 18-pulse solution produces current distortion of less than 5%, allowing you to meet/exceed the requirements of IEEE-519 2014 on your network. Actual levels of harmonic distortion will vary from installation to installation as a result of site conditions.

6-pulse drive, no harmonic reduction



18-pulse drive



An 18-pulse solution offers very good reduction of harmonic distortion.

Contact us

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