



ESEC[®]
EAST SEA ENERGY ENVIRONMENT





Project: Active Harmonic Filter Solution
Customer: HOA PHAT DUNG QUAT STEEL

TURN IT BALANCE


Customer Profile

Hoa Phat is the leading industrial manufacturing group in Vietnam. Hoa Phat Group is the largest manufacturer of construction steel and steel pipes in Vietnam with market share of 25% and 30% respectively.

The Competition



Our main competition is MERUS, PowerMore & Danfoss, which has an installed base of variable speed drives in the customer's facilities, but the competition is eliminated due to the strong technical team & ESEC's capability starting from performing PQ Audit services until the propose the AHF PCS+ offer with the reliability of our products....



Customer Challenge

Harmonic current generated by motion control and VSD system is high that led to high harmonic current and voltage distortion, that results in:

- Neutral overload due to 3rd harmonic currents
- Overheating cable, VSD Main Production Lines fails
- Reduce harmonic level into safe region as suggested by Regular 39,30 – Vietnam MOIT & IEEE 519 standard. < 5% TDD.

PQ Meter + PME Software

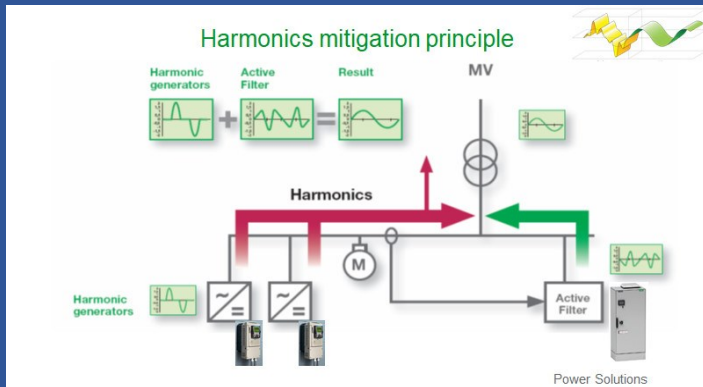
Accusine PCS+



EcoXpert Partner



The Solution



Apps,
analytics,
and services

Edge
control

Connected
products



EcoStruxure Power Advisor
(Under Discussion)



EcoStruxure Power
Monitoring Expert



02 pcs AccuSine PCS+

1
Power Quality
Assessment Service
done by ESEC's Team

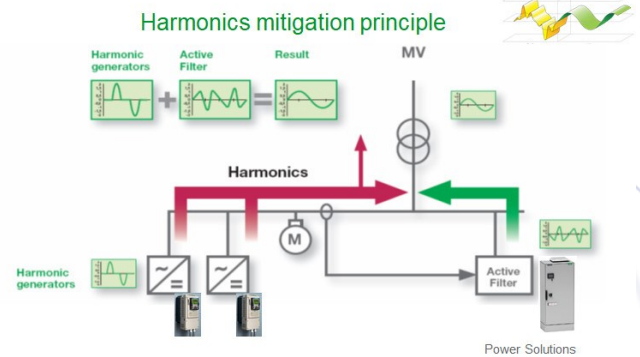
2
02 pcs of AccuSine
PCS+ for VSD Main
Production Lines

Customer benefits

Power quality (Harmonic) of Hoa Phat Dung Quat will comply with IEEE 519 and TCVN (Regular 39 & 30 – Vietnam MOIT) standard

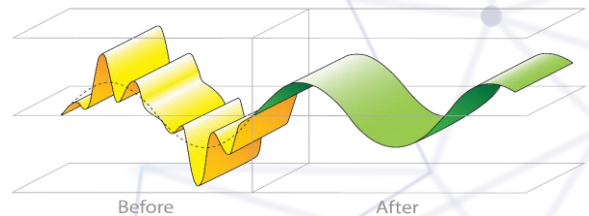
❖ Improve power reliability and productivity (power management)

- Reduce peak currents which frees system capacity
- Limit current distortion
- Cancel the effects of harmonics



❖ Avoid equipment damage or shortened life (asset management)

- Reduced harmonics diminishes the production of excessive heat
- Prevent logic faults which can result in downtime
- Improve equipment service life time



Parameter	Before	After
THDv	11.7%	5.3%
THDi	22.4%	5%
DPF		1.0

❖ Improve financial performance (cost management)

- Reduce power factor penalties
- One of the factors that contributes to the power consumption saving program of factory