



Merus™ 4DRIVES

OPTIMIZED ACTIVE HARMONIC FILTER FOR VARIABLE FREQUENCY DRIVES

- User-friendly operation and functionality with easy commissioning
- Simple to integrate into VFD scope of supply
- Aimed specifically for volume Original Equipment Manufacturers (OEM) and system integrators
- Fully designed, manufactured, and tested by Merus Power in Finland
- Strong industrial background with 15-year experience in power quality solutions



A SIMPLE SOLUTION TO A COMPLEX PROBLEM

- Improves power quality and energy efficiency and enhances sustainability
- Ensures operational reliability and higher productivity - reduced operational expenditure (OPEX) and increased mean time before failure (MTBF)
- Compact modular and scalable design
- Increases redundancy and reduces maintenance costs - longer lifetime of electrical and process equipment with reduced maintenance costs
- Compliance with IEEE 519, G5/4, EN 50160, and other power quality standards and regulations
- Access to professional technical and after-sales support 24/7

TYPICAL SEGMENTS AND APPLICATIONS



Water and wastewater treatment



Buildings and HVAC applications



Data centers

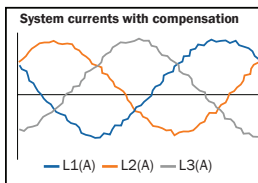
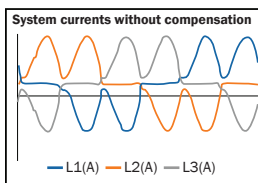


Industry applications

MERUS™ 4DRIVES MODULE FEATURES

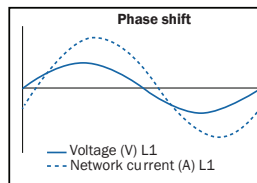
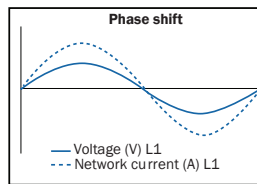
Harmonic current compensation

Mitigates harmonic current in the measurement point - mitigating current/voltage distortion



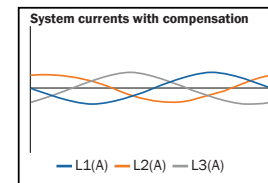
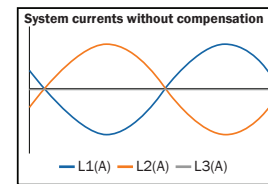
Reactive power compensation

Mitigates reactive power - power factor improvement, voltage sag mitigation



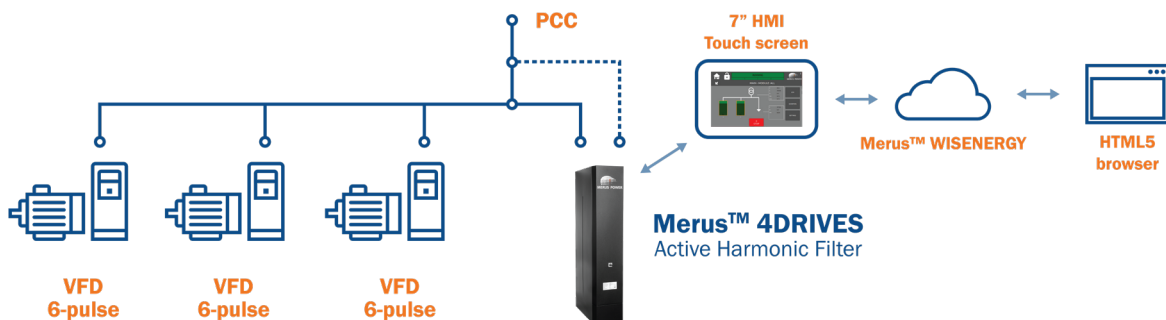
Load current balancing

Balances fundamental cycle current - evens phase imbalance



- Operation and experience in challenging environments THD(V) <10%
- Capability to compensate 3rd harmonic in phase unbalance situation
- Optimized compensation for drive usage and enhances the lifetime of drive

MERUS™ 4DRIVES OPERATION PRINCIPLE



Merus™ 4DRIVES Active Harmonic Filters operate similarly to noise-canceling headphones. They measure the distorted current of VFDs and inject harmonic frequencies, but with an opposite phase angle. Canceling out harmonic currents reduces voltage harmonics and eliminates distortion at the point of common coupling. Alternative connection to cloud-based platform Merus™ WISEENERGY allows easy access for remote control and monitoring.