ENABLE

Aidon
a gridspertise company

Aidon FMD

Feeder-line measurement devices

Real-time feeder line visibility and efficient grid management

Electrification and distributed energy resources make the **low-voltage grid** increasingly complex, requiring **accurate, real-time data** for reliability and optimisation.

Traditional transformer stations lack feeder line measurements, making it **difficult to detect power quality issues, phase imbalances or overload** before they cause faults or customer complaints.

Aidon Feeder Line Measurement Device (**FMD**) provides **precise measurements and power quality data from each feeder line**, enabling utilities to monitor, analyse and act in real time.

Discover the solution

The **Aidon TRAFO solution** brings intelligence to transformer stations, giving utilities precise control of the low-voltage grid. The solution includes Aidon's smart meters, FMD devices, cabinet sensors, SaaS applications and integration tools.

Aidon FMD complements the TRAFO solution by providing detailed measurements from each outgoing feeder line, including **load profiles** and **power quality data**.

The FMD is connected to the head-end-system through **Aidon's CT meter acting as a gateway**.

Combined with **data visualisation in Aidon Explorer**, the solution offers advanced analytics and visualisation of feeder line and transformer data for **capacity management** and **proactive maintenance**.

Scalable by design

Built to expand with your transformer station needs, supporting up to 18 feeder lines through modular chaining.

Detailed monitoring

Provides accurate 4-quadrant energy measurements, timestamped load profiles and power quality data for each feeder line.

Direct connectivity

Connects to Aidon CT meter with fast and reliable data transfer to the head-end system.

Covered Use Cases

Detailed monitoring and easy scalability for smarter transformer stations.

What it enables...

Low-voltage feeders monitoring

Continuous visibility of **each feeder line's energy, voltage, current and power quality** parameters. Early detection of imbalances and overloads **improves grid stability and reduces outages.**

Real-time transformer supervision

Aidon FMD complements the Aidon TRAFO solution by working with the CT meter to **provide detailed load and condition data**. This helps extend asset lifetime, **prevent overloads and reduce unplanned outages**.

Power quality monitoring

Accurate **data on voltage, current and harmonics** are delivered for each feeder line, supporting **demand management** and ensuring **reliable energy supply**. This enables proactive actions to maintain service quality and customer satisfaction.

Predictive maintenance planning

Combining historical trends with real-time measurements helps in **identifying early signs of imbalance or stress on feeder lines**. This enables utilities to schedule maintenance proactively, **reducing downtime** and operational costs.

Analytics from Aidon Explorer

Aidon Explorer **visualises and analyses FMD data** for capacity management, phase balance checks and power quality insights. With intuitive dashboards and historical trends, **utilities can make informed decisions and optimise network performance**.

Data-driven grid optimisation

Granular feeder line data and advanced analytics via **Aidon Explorer support planning for network upgrades and capacity allocation**. This ensures investments are targeted where they deliver the most value.

Business Impact

Asset upgrades

Retrofit existing transformer stations without major investments, extending lifetime and improving planning.

Operational savings

Reduce field work and improve preventive maintenance through real-time feeder line data. Postpone investments by improving load balance.

Revenue protection

Minimise technical losses with accurate measurements and power quality monitoring.