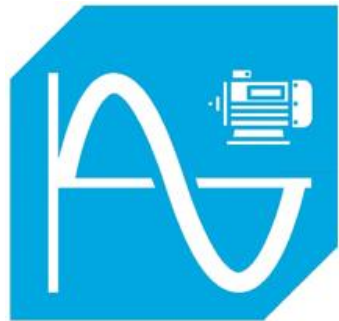


iQunet.®

# Electrical Signature Monitoring

with embedded AI





# iQunet.<sup>®</sup> Wireless Asset Health Monitoring Solutions

iQunet's sensor hardware covers most important potential Drive Train failures

Techniques to perform Asset Health Monitoring



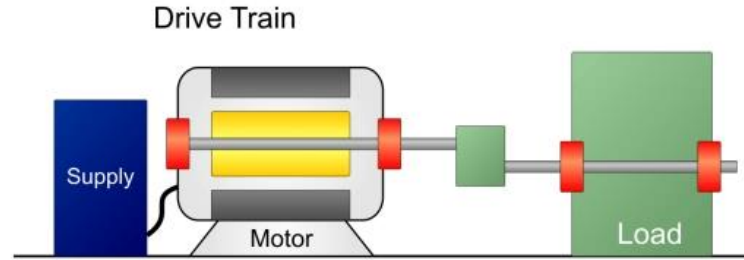
**Vibration Monitoring**

✔ 3/7



**(ESA) Current Waveform Monitoring**

✔ 5/7



	Supply	Power Quality	EPVA (Voltage)	
✔	Mec. Imbalance or Misalignment	MCSA	Vibration	EPVA
	Insulation Faults	Partial Discharge	EPVA	
✔	Stator Electrical Imbalance	EPVA	MCSA	Power Quality
✔	Broken Bars	MCSA	EPVA and IPSA	
✔	Bearing Faults	Vibration	Wavelet on Current	MCSA, EPVA and IPSA
✔	Coupling and Load Mechanical Failures	Vibration	MCSA, EPVA and IPSA	

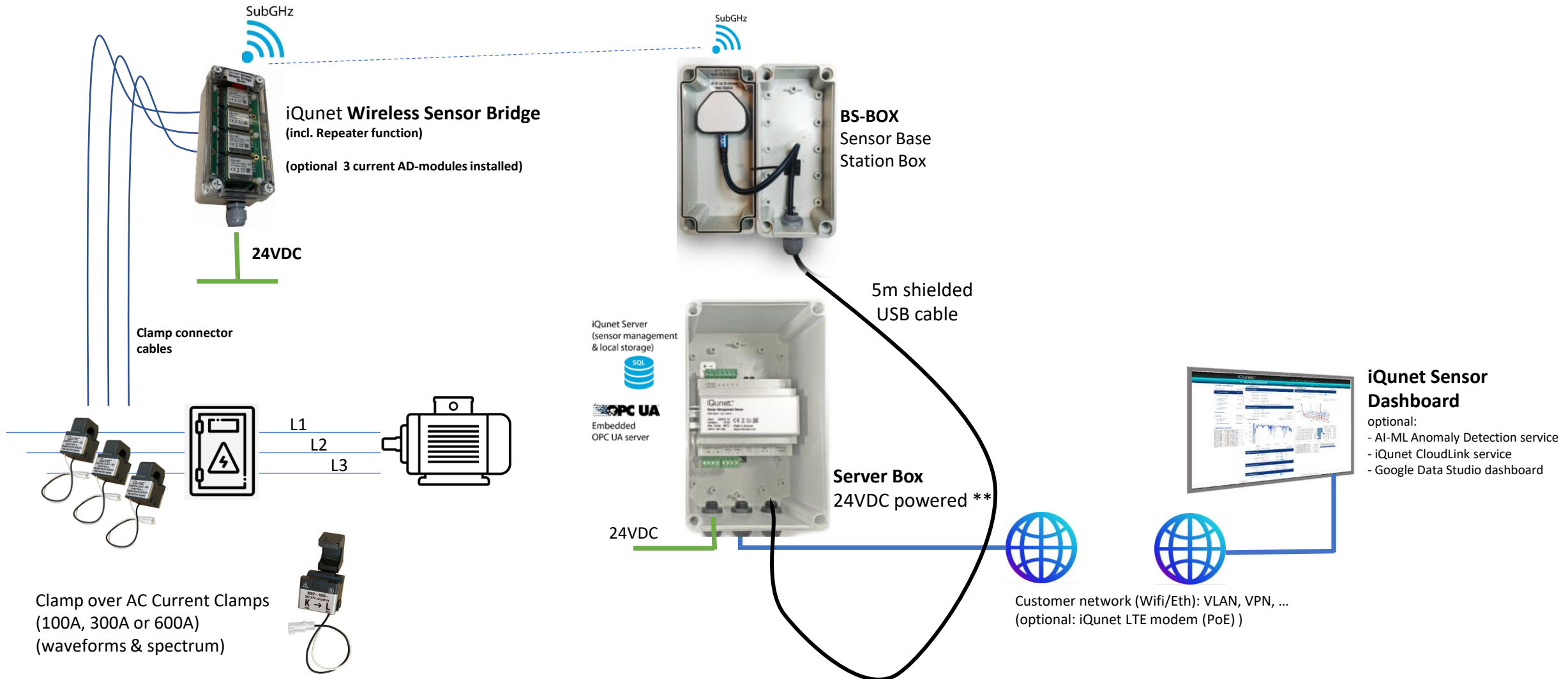
ideal  
 good  
 workable

MCSA\*

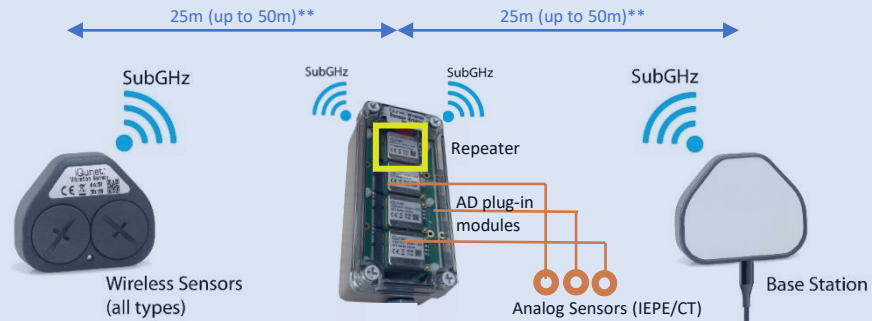
\* Motor Current Signature Analysis



# iQunet.<sup>®</sup> Wireless Setup (AC current monitoring)



# iQunet<sup>®</sup> Condition Monitoring Architecture (+Wireless Bridge)



## Wireless Sensor Network

- Local sensor network at SubGHz frequency
- Free ISM band at 868Mhz or 915Mhz center frequency – worldwide use

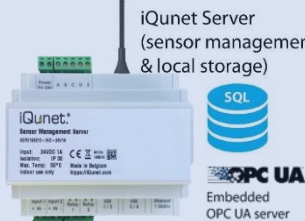
\*\* Wireless reach depending on plant topology



Web Browser  
(sensor dashboard & server settings)



iQunet Server  
(sensor management  
& local storage)

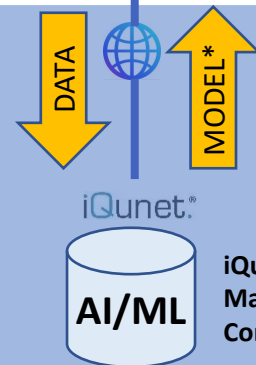


## iQunet Edge Server

- Edge computer, local storage (no cloud !)
- OPC UA embedded server, free data
- Connectivity: WebRTC, VPN (Hamachi; Wireguard), iQunet CloudLink
- Multiple Dashboards

## Network options

- Ethernet network or WiFi network at 2,4GHz or 5GHz free frequency
- Including local hotspot access point (peer to peer with mobile phone,etc)



iQunet<sup>®</sup>  
AI/ML  
iQunet  
Machine Learning  
Computer

## AI Anomaly Monitoring Service\*

(\* optional service: AI models are licenced)

- Free Embedded Software
- One time transfer of historical data set (“equipment footprint”)
- ML Model transferred and stored back in iQunet Edge server
- Continuous real time processed Edge Anomaly Monitoring



# iQunet.® Typical Bridge Range and Layout\*

