

i-LinkBox refers to “Intelligent” Link Box, is a new development of a standard link box with the ability of collecting online parameters of high voltage (HV) cable bonding system and also cable accessories.

i-LinkBox senses partial discharge (PD) occurrence in HV cable joint and terminations, water ingress into link boxes, copper theft, exceeding current /voltage, or unbalance in three phases, incident of lightning impulses or any unwanted problems then sending alarm to control center to prevent any catastrophic failure of costly HV cable system in advance.

FEATURES :

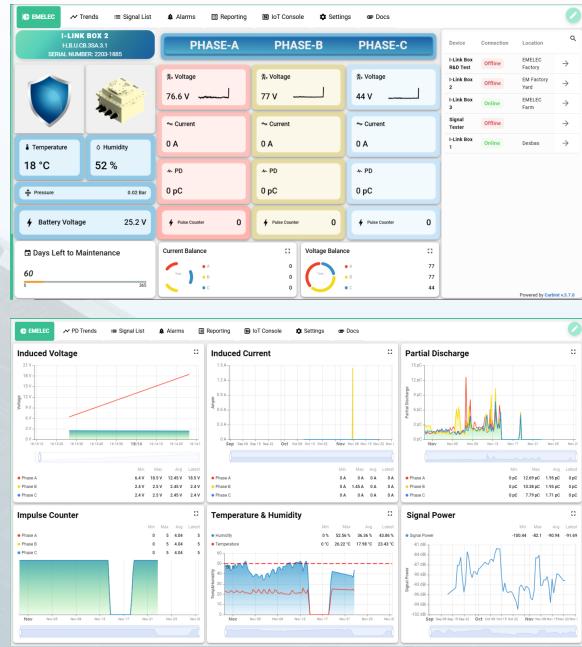
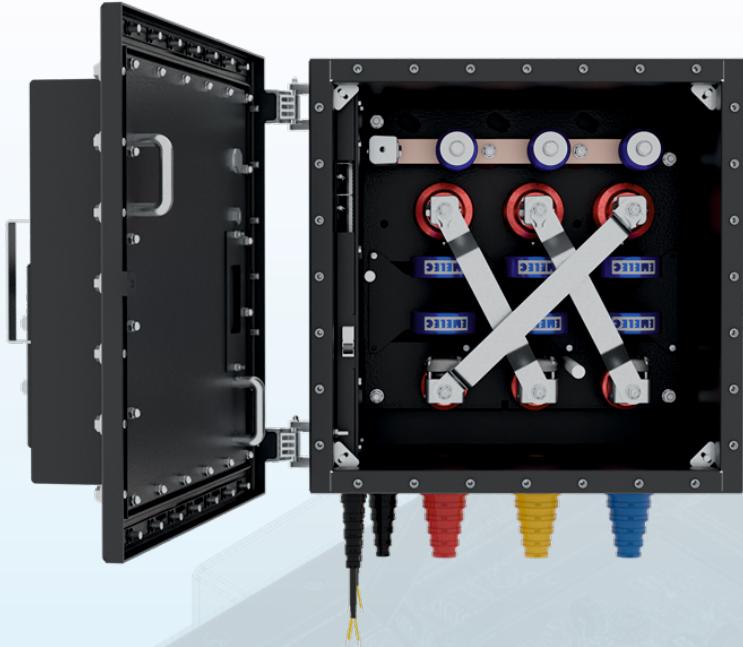
- ❖ **Online PD Alarm System (IPEC UK) :**
Online PD Monitoring through HFCT sensors located inside Link Box
- ❖ **Induced Current Measurement :**
Monitoring Induced current of the bonding system
- ❖ **Induced Voltage Measurement Circuit :**
Monitoring induced voltage of the bonding system
- ❖ **Impulse Counter Circuit :**
Counting number of impulses passing through SVL

- ❖ **Temperature and Humidity Sensors :**
Monitoring actual climate conditions inside the link boxes
- ❖ **Pressure Sensor :**
Diagnosing any temporary pressure increasing
- ❖ **Water Ingress Sensor :**
Checking whether any water ingress inside the Link Box.
- ❖ **LDS (Light Dependent Sensor) in the Cover :**
Informing in case of any cover opening





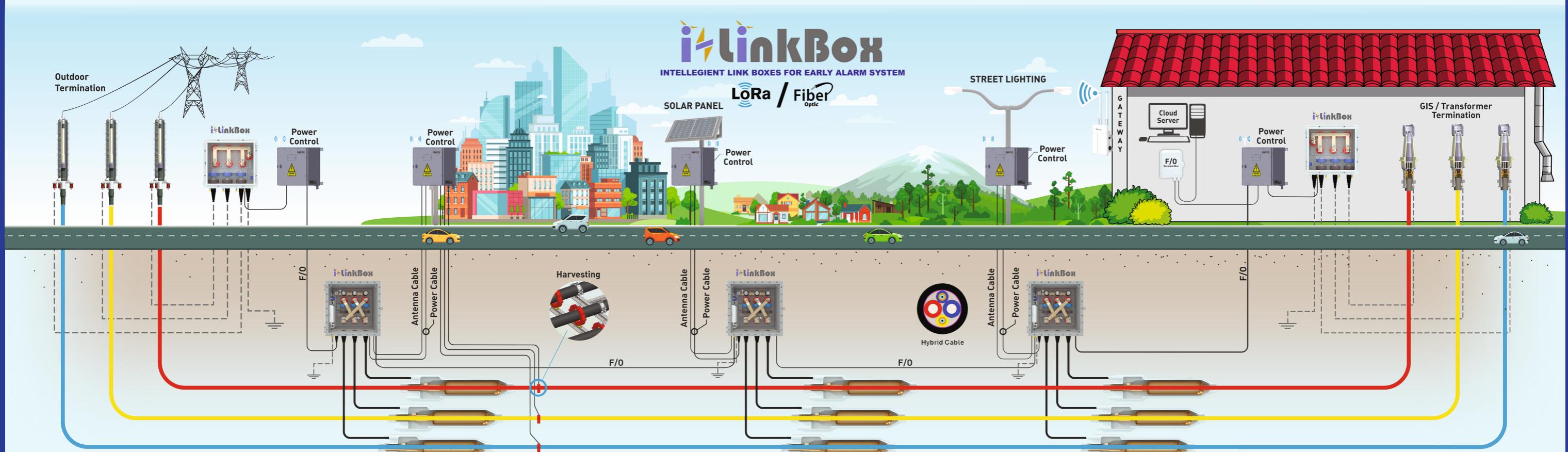
LoRa / Fiber
Optic



Features	Standard Link Box	i-LinkBox™
⌚ Continuous Monitoring	Not Available	Continuously monitors and records critical parameters in real time.
🌐 Remote Access	Not Available	Remote monitoring via secure digital platform.
🛠 Easy Maintenance	Periodic maintenance required without condition-based assessment.	Preventive approach — minimizes maintenance needs through remote system diagnostics.
⚠ Smart Alerts	No alarm or early warning system.	Sends instant alerts via email and platform when thresholds are exceeded.
⚡ Energy Efficiency	Generally inefficient in operation and energy use.	Designed for low power consumption and optimized performance.
🚀 Communication Infrastructure	Lacks communication capabilities.	Supports modern data transmission technologies (e.g., LoRaWAN, Fiber Optic).
🛠 Reliability	Not possible to predict unexpected failures or downtime.	Continuous monitoring minimizes the risk of outages and faults.
💰 Cost Savings	High operational costs due to frequent inspections and failures.	Significantly reduces maintenance and operating costs.

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