CO_2 Visible CFP calculation device

No construction required, easy installation

▼

Measures power consumption in real time

▼

Calculates CO_2 emissions

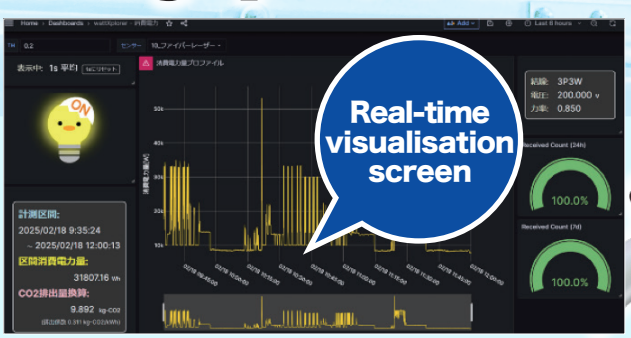
watt Xplorer

Solution that visualises power consumption and CO_2 emissions by process

Product introduction website

Installation...

Power supply	USB-TypeC
Measurable current	0.1～600Arms
Operating temperature and humidity	−10～+55℃、～85%RH
Supported connections	1P2W、1P3W、3P3W、3P4W
Measurement targets	AC current
Communication interface	Wi-Fi (IEEE 802.11 b/g/n 2.4GHz)
Communication protocol	MQTT QoS1、Modbus/TCP
Data acquisition interval	1 / 10 / 30 / 60 seconds
Data transmission interval	10 / 20 / 30 / 60 seconds



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Carbon neutrality applies to the entire supply chain

Upstream

①Purchased products (raw materials, etc.) and services

⑦Employee commuting

④Transportation and delivery

Other:
②Capital goods, ③Fuel and energy-related activities not included in Scope 1 or 2, ⑤Waste, ⑥Business travel, ⑧Leased assets

Scope3

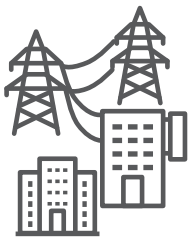
Indirect emissions beyond Scope 1 and 2 (emissions from other companies related to the business operator's activities)
※The numbers in circles (◯) indicate Scope 3 categories

Company-owned

Fuel combustion

Scope1

Direct greenhouse gas emissions by the operator (e.g. fuel combustion, industrial processes)



Electricity use

Scope2

Indirect emissions from electricity,heat,and steam supplied by other companies

Downstream

⑪Use of sold products

⑫Product disposal

Other:
⑨Transportation and delivery, ⑩Product processing,⑬Leased assets, ⑭Franchises, ⑮Investments

Scope3

Indirect emissions beyond Scope 1 and 2 (emissions from other companies related to the business operator's activities)

Visualising CO_2 reduction (energy saving) in air conditioning (Kyokko Electric Co.,Ltd. Headquarters outdoor unit cleaning)

Outdoor Unit		Before cleaning	After cleaning	Difference
Electricity Consumption (kWh)		12.788	9.817	-2.971
CO_2 Emissions (kg)		5.358	4.113	-1.245
Outdoor temperature	8:30	8°C	7°C	
	12:00	12°C	12°C	
	15:00	12°C	12°C	
	17:30	13°C	12°C	

23% Improvement

Annual (240-day) operating guideline and reference values:
- Reduction of 713 kWh (JPY 22,000) per unit annually
- Reduction of CO_2 emissions by 298 kg per unit annually

- Mode: Heating
- Set temperature: 25°C
- Airflow: Level 3
- Time: 8:30–17:30

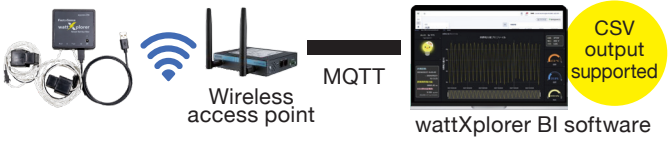
Product introduction website

System configuration

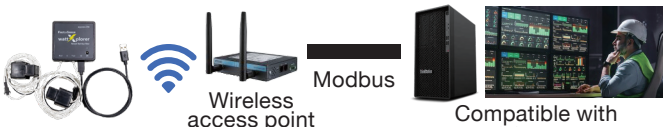
Flexible application tailored to customer environments

On-premises

▼ When using wattXplorer BI software

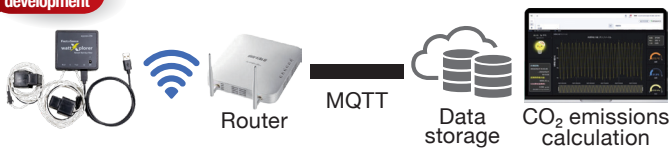


▼ Integrates with upper-level systems



Cloud

Under development



Solving challenges with wattXplorer

	Challenges	Solved with wattXplorer
Calculation methods	Calculate power consumption per machine	Installed on each machine
	Link power consumption to processes/parts	Power consumption can be analysed and integrated by time axis
	Aggregate calculations at a later stage	Cloud, Grafana, and CSV data supported
Implementation at production sites	Install metering equipment without stopping the machine	Simply clamp the current sensor to the power line Sensor size can be adjusted later
	Easy to deploy	Compact and reduces wiring Connects to existing Wi-Fi routers **(No dedicated gateway required)**
System visualisation	Cloud (SaaS)	UI/UX and cloud services provided by experienced partners
	SCADA integration	MQTT, Modbus, and CSV supported
	Standalone	Grafana (developed by Kyokko Electric) Node-RED **(customer-developed or open source)**