

● TITAN PLUS BTU

One meter. Complete efficiency.

The first DIN rail meter combining utility-grade electrical energy metering with EN 1434 thermal energy measurement in a single device — and calculating efficiency automatically.

Globally unique

No other DIN rail device combines kWh and BTU in one unit

Real-time COP

Thermal kWh ÷ electrical kWh, calculated every measurement cycle

Actionable efficiency

COP trend curves reveal chiller and boiler degradation as it happens



01 The problem

TWO METERS, ONE BLIND SPOT

District cooling operators, chiller plant managers, boiler engineers and HVAC teams need two separate meters to understand system efficiency: an electrical meter for compressor or boiler power, and a thermal meter for cooling or heating output.

Two vendors, two installations, two data streams — and a manual COP calculation in a spreadsheet. Most facilities skip the thermal meter entirely and fly blind on efficiency.

When a chiller degrades or a boiler loses efficiency, nobody notices until the energy bill arrives. Titan Plus BTU measures both in one device and calculates efficiency on board.

Dual PT1000 RTD

Flow and return temperature measured directly at the device, with an external flow meter polled over Modbus RS485.

EN 1434 thermal energy

Thermal calculation to the standard used for heat and cooling billing — thermal kWh and ΔT logged alongside the electrical registers.

COP on board

Coefficient of Performance computed every measurement cycle, not reconstructed monthly from two exports.

Combined KPIs

COP, EER, thermal kWh and ΔT beside V, I, P, PF, kWh and harmonics — one device, one data stream, one vendor.

03 Applications

Chiller plant efficiency

Spot degrading compressors, fouled condensers and low refrigerant charge.

Boiler efficiency

Thermal output against electrical input; catch scaling and burner losses.

District cooling / heating

Per-tenant thermal billing with electrical monitoring, one device per point.

Data centre cooling

PUE and cooling efficiency tracking with combined energy reporting.



Technical specifications

TITAN PLUS BTU · KWH + BTU

ELECTRICAL MEASUREMENT

Accuracy class (active)	Class 0.5S
Accuracy class (reactive)	Class 2.0
Voltage range	48–500 V AC
Current range	100 / 200 / 400 / 800 A
Frequency	50 / 60 Hz
Parameters	V, I, P, PF, f, kWh, kVARh, kVAh
Harmonics	Up to 31st, per phase
Advanced metrics	Earth leakage, load hours, max demand, power cycles
Load profile	Configurable 1–60 min
Event log	U/V, O/V, over-current, power cycles, harmonics, runtime

THERMAL MEASUREMENT

Temperature sensors	Dual PT1000 RTD
Flow input	External flow meter via Modbus RS485
Thermal calculation	EN 1434 compliant
Combined KPIs	COP, EER, thermal kWh, ΔT

COMMUNICATION

Internet	WiFi & Ethernet
Wired / local	RS485 (master or slave)
Protocols	Modbus RTU/TCP, MQTT

MECHANICAL

Mounting	DIN rail
Dimensions	94 × 89 × 69 mm
Operating temp.	–25 °C to +55 °C

STANDARDS

IEC 62052-11 · IEC 62053-21/22 · EN 1434 · IEC 61010 · IEC 61000 EMC

marketing@techovn.com
Delhi NCR, India