



BROCHURE

EMT130 · EMT132

Three-phase power analyzers · 1 DIN module

English · Revision 0



1 OVERVIEW

EMT130 and EMT132 are class 0.5 S three-phase power analyzers in a single DIN module, with colour display and touch button, RS485, Wi-Fi and NFC. They fit into already crowded panels and measure energy and power quality up to the 63rd harmonic. The EMT130 is powered from the measured line, the EMT132 at low voltage from the T-BUS connector, which also carries RS485.



1.1 Key features

- **A single DIN module:** 93×69×17 mm, with 160×80 colour display and touch button.
- **Class 0.5 S:** active energy class 0.5 S (EN 62053-22) and class C (EN 50470-3).
- **Wi-Fi and RS485:** Modbus TCP and RTU, built-in webserver, JSON API and MQTT (FULL).
- **T-BUS connector:** power supply and RS485 shared between several side-by-side instruments (EMT132).
- **Power quality:** harmonics up to the 63rd, THD, dips and swells (FULL).
- **Inputs for every sensor:** 5 A (1 A) CTs or 333 mV CTs and Rogowski coils.

1.2 Applications

- Sub-metering and cost allocation
- HVAC and heat pump consumption metering
- On-machine consumption

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- Photovoltaics and storage
 - 24 V distribution panels

2 MODELS AND VERSIONS

2.1 Two power supplies

Model comparison			
Model	Power supply	Insulation supply / measurement	T-BUS connector
EMT130	Self-powered from the voltage inputs, 85–265 Vac L-N	Not insulated	RS485 only (accessory)
EMT132	SELV 10–36 Vdc · 19–26 Vac from the T-BUS	4 kV	Power supply and RS485

Ideal for	
EMT130	Department sub-meters and panels with little space
EMT132	Rows of instruments powered from the T-BUS, 24 V panels

2.2 BASE and FULL versions

BASE and FULL versions		
Function	BASE	FULL
Real-time measurements: voltages, currents, powers, $\cos \phi$, frequency	●	●
Bidirectional active, reactive and apparent energy counters	●	●
Average, maximum and minimum values, peaks and max demand	●	●
Voltage harmonics and current interharmonics up to the 63rd	—	●
THD and TDD, distortion power factor, K-factor	—	●
Quality events: dips, undervoltages, overvoltages	—	●
Measurement logging, exportable from the webserver	—	●
Oscilloscope from webserver and RS485	—	●
MQTT and connection to the Chronos Cloud	—	●

3 TECHNICAL SPECIFICATIONS

Measuring inputs	
Rated voltage	85–265 Vac L-N · 150–450 Vac L-L
Operating frequency	DC / 1–65 Hz
Input .I (current-output CT)	In 5 A (or 1 A) · I _{max} 6 A · starting 5 mA · < 1 VA per phase · overload 40 A for 500 ms
Input .V (333 mV / Rogowski)	V _n 333 mV · V _{max} 500 mV · 220 kΩ · built-in integrator for Rogowski coils
Measurement type	TRMS · 6400 samples/s at 50 Hz, 7680 at 60 Hz

Accuracy (25 ± 5 °C, 50 Hz)	
Active energy	Class 0.5 S (EN 62053-22) · class C (EN 50470-1/3)
Energia reattiva	Class 0.5 S (EN 62053-24)
Voltage · current	± 0.2 % rdg · ± 0.3 % rdg
Powers	± 0.3 % rdg (5–100 % In) · ± 0.4 % rdg (1–5 % In)
Frequency	± 0.008 Hz (45–65 Hz)
THD · harmonics	± 0.3 % · amplitude ± 3 % up to the 16th, ± 5 % up to the 63rd

Communication and outputs	
RS485	Modbus RTU · 1200–115 200 baud · up to 247 addresses · on terminal or T-BUS connector
Wi-Fi	2.4 GHz 802.11 b/g/n · Modbus TCP, HTTP, MQTT, SNMP · up to 10 clients · station and access point
NFC	Reading of the configuration parameters
Digital output	1 solid-state (MOSFET) · < 40 V, < 100 mA · alarm or pulses/kWh
Logging	Internal flash memory up to 1 MB (FULL)
Configuration	Built-in webserver, app, JSON API · from cloud (FULL)

General	
Display	160×80 pixel colour, with touch button
Dimensions	93×69×17 mm · 1 DIN module · grey PBT
Protection rating	IP20 · pollution degree 2
Temperature	Operating –25 to +65 °C · storage –40 to +85 °C
Humidity · altitude	10–90 % non-condensing · up to 2000 m
Measurement category	CAT III 300 V
Standards	EN 61010-1, EN 61010-2-030 · EN 61000-4-2/3/4/5/6 · EN 55032 class B

4 ORDER CODES

The code is made up of model, input type and version: MODEL.INPUT.VERSION. The EMT13x have no expansions.

Code structure	
Field	Values
Model	EMT130 = self-powered EMT132 = SELV power supply 10–36 Vdc / 19–26 Vac (T-BUS)
Input	I = 5 A (1 A) CT V = 333 mV CT / Rogowski coils
Version	BASE = measurements, counters and communication FULL = advanced analysis, logging and MQTT

Available codes		
Code	Input	Version
EMT130.I.BASE	5 A (1 A) CT	BASE
EMT130.I.FULL	5 A (1 A) CT	FULL
EMT130.V.BASE	333 mV / Rogowski	BASE
EMT130.V.FULL	333 mV / Rogowski	FULL
EMT132.I.BASE	5 A (1 A) CT	BASE
EMT132.I.FULL	5 A (1 A) CT	FULL
EMT132.V.BASE	333 mV / Rogowski	BASE
EMT132.V.FULL	333 mV / Rogowski	FULL

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