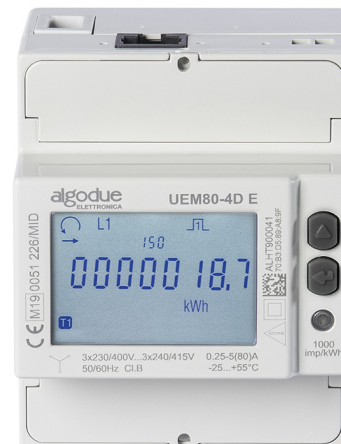


UEM80 «UEM80-4D E»

80A three phase energy meter with built-in ETHERNET

- Built-in Ethernet interface
- Direct connection up to 80 A
- 4-quadrant measurements for all energies and powers
- Integrated Web Server for direct access, real-time data viewing
- Internal 8 MB memory for data logging with manual or automatic transfer modes
- Web API with HTTP/XML support for system-level integration
- S0 output for energy pulse emission
- MID Certified Class B according to EN 50470-3



» General features

The UEM80-4D E is a 4-DIN module three-phase energy meter with integrated Ethernet interface, suitable for use in both industrial and civil installations. It is MID certified, Class B in accordance with EN 50470-3, ensuring the accuracy required for billing and fiscal energy measurement. Reactive energy measurement complies with IEC/EN 62053-23, Class 2.

The device features a built-in Web Server, accessible from any standard browser without requiring external software.

Through an IP address, users can view real-time measurements and manage data logging directly via the interface.

The layout is multilingual, intuitive, and designed to provide full control over configuration and monitoring functions. The Web Server guarantees operational autonomy, allowing direct interaction with the device without the need for additional systems.

FTP PUSH functionality allows automatic daily transfer of recorded data in CSV format to a remote server, with an optional auto-delete feature to optimize memory usage.

A dedicated Web API is also available for structured data access over Ethernet. Using standard HTTP methods (GET/POST) and XML formatting, it enables real-time and historical data retrieval by external systems, supporting integration into energy management platforms and automation networks.

Wide backlit LCD display with clear graphic symbols comprehensible at a glance. Metrological LED on front panel and sealable terminal covers.

» Applications

- Totalization of the electric energy in the industry for each single line or machine.
- Measurement of energy generated by renewable sources such as solar, eolic, etc.
- Accounting and billing of consumptions in camp sites, malls, residential areas, naval ports, etc.
- Totalization of the electric consumption in hotels, congress centers, exhibition fairs.
- Accounting of the consumptions in buildings with executive office services.
- Internal allocation of the consumptions in timeshare civilian and industrial buildings.
- Realization of energy monitoring systems.
- Remote survey of the consumptions and compute of the costs.

» Benefits

- Remote management through Web server – accessible from any standard browser.
- FTP Push Functionality for automatic data transfer.
- Web API available for automated data acquisition and EMS/BMS integration
- Up to 30 instantaneous measurements, complete set of energy counters and partial counters.
- Partial counters can be started, stopped or reset.
- Phase sequence and diagnostic function for error signalling in case of wrong polarity connection.
- MID certification.

» Remote Management System

The UEM80-4 E integrates a fully embedded **Web Server**, developed in-house to provide fast, intuitive, and multilingual supervision of electrical parameters.

It allows direct access to real-time data and complete device configuration from any standard web browser, with no need for software installation.

Access is established via a dedicated IP address, using a user-friendly interface optimized for both desktop and mobile devices.

Users can view live measurements, configure system parameters, and manage data logging – all through a simple and efficient web-based interface.

Simplified Energy Data Collection

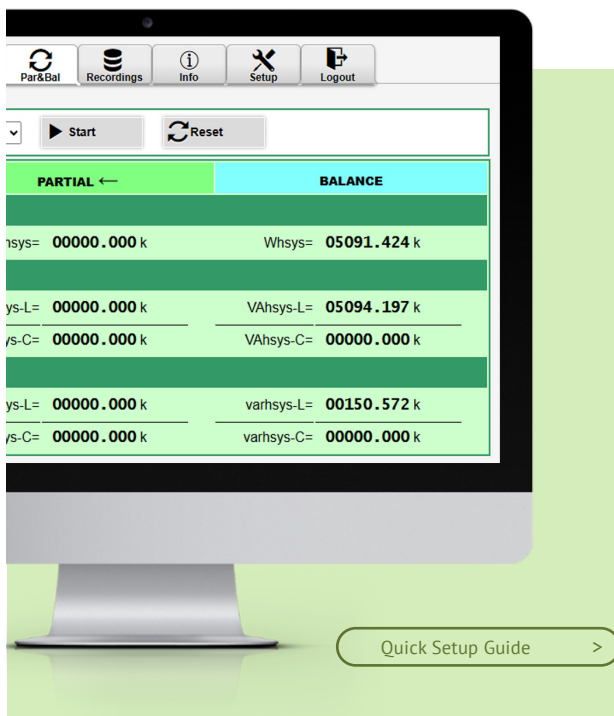
The FTP Push Functionality allows energy managers and auditors to automate data transfer to an external server, eliminating manual handling. Once scheduled, the system securely transmits CSV recordings, ensuring efficient remote data analysis without memory overload.

Quick Set up in Three Steps:

1. **Access the Web Server**, go to **SETUP > FTP SCHEDULE**
2. **Enable FTP PUSH** and enter the destination server details
3. **Schedule the transfer by choosing the desired date and time**, then click **APPLY**

Extra Feature: Option to auto-delete transferred data, keeping the meter's memory optimized.

Note: FTP PUSH transfers data once per day, ensuring reliable and scheduled energy data delivery.



Browser-Based Configuration

- Access the device instantly from any browser
- No software installation or setup needed

Real Time & Historical Data

- View live measurements and logs trend over time
- Internal memory ensures continuous recording
- Set the period recording rate (10'' up to 60')
- Remote configuration of meter setup and operating parameters
- Logged data can be downloaded on demand via web interface
- Easily export in .CSV format all the data for further analysis

» Measurements

	PARAMETERS	MEASURE UNIT, VALUE or STATUS	4 WIRE SYSTEM	DISPLAY / COM PORT
INSTANTANEOUS VALUES				
Phase voltage	$V_{L1-N} - V_{L2-N} - V_{L3-N}$	V	●	●
Line voltage	$V_{L1-L2} - V_{L2-L3} - V_{L3-L1}$	V	●	●
System voltage	V_{Σ}	V	●	●
Phase current	$I_1 - I_2 - I_3$	A	●	■
Neutral current	I_N	A	●	■
System current	I_{Σ}	A	●	■
Phase power factor	$PF_{L1} - PF_{L2} - PF_{L3}$	-	●	●
System power factor	PF_{Σ}	-	●	●
Phase apparent power	$S_{L1} - S_{L2} - S_{L3}$	VA	●	■
System apparent power	S_{Σ}	VA	●	■
Phase active power	$P_{L1} - P_{L2} - P_{L3}$	W	●	■
System active power	P_{Σ}	W	●	■
Phase reactive power	$Q_{L1} - Q_{L2} - Q_{L3}$	var	●	■
System reactive power	Q_{Σ}	var	●	■
Frequency	f	Hz	●	●
Phase sequence	CW/CCW	-	●	●
Power direction	> <	-	●	●
RECORDED DATA				
Phase active energy	L1 - L2 - L3	Wh	●	■
System active energy	Σ	Wh	●	■
Phase inductive and capacitive reactive energy	L1 - L2 - L3	varh	●	■
System inductive and capacitive reactive energy	Σ	varh	●	■
Phase inductive and capacitive apparent energy	L1 - L2 - L3	VAh	●	■
System inductive and capacitive apparent energy	Σ	VAh	●	■
Resettable partial energy counters	Σ	Wh, varh, VAh	●	■
Energy balance	Σ	Wh, varh, VAh	●	■
OTHER INFORMATION				
Secondary values	SEC	ON/OFF	●	●
CT ratio	CT	Set value	●	●
Undervoltage/overvoltage	VOL, VUL	ON/OFF	●	●
Undercurrent/overcurrent	IOL, IUL	ON/OFF	●	●
Frequency out of range	fOUT	ON/OFF	●	●
Partial counters	PAR	START/STOP	●	●
S0 output status	$\overline{1}$	Active	●	●
LEGEND: ● = Available ■ = Bidirectional value				

A recording at programmable rate (minimum 10 s) can be enabled with selectable parameters like instantaneous values and counters. Then, the recorded data can be transferred manually or automatically.

» Technical features

GENERAL

Housing in compliance with standard	DIN 43880
Terminals in compliance with standard	EN 60999

POWER SUPPLY

Power supply	from the voltage lines
Range	nominal voltage $\pm 20\%$
Overvoltage category	300 V CAT III
Max consumption (for each phase)	3,5 VA - 1 W

NOMINAL VOLTAGE & FREQUENCY

Nominal value	3x230/400 ... 3x240/415 V 50/60 Hz
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CURRENT

Starting current I_{st}	20 mA
Minimum current I_{min}	250 mA
Transitional current I_{tr}	500 mA
Nominal current I_n	5 A
Maximum current I_{max}	80 A

ACCURACY

Active energy class B in compliance with	EN 50470-3
Reactive energy class 2 in compliance with	EN 62053-23

COMMUNICATION

In compliance with standard	IEEE 802.3
Isolated port	Ethernet
Protocols	MODBUS TCP, HTTP, NTP, DHCP, FTP
Communication speed	10/100 Mbps

S0 OUTPUT

Type	pulse
Max values (in compliance with EN 62053-31)	27 VDC - 27 mA
Insulation voltage	4 kV
Pulse length	50 ± 2 ms ON time min. 30 ± 2 ms OFF time

METROLOGICAL LED

Meter constant	1000 imp/kWh
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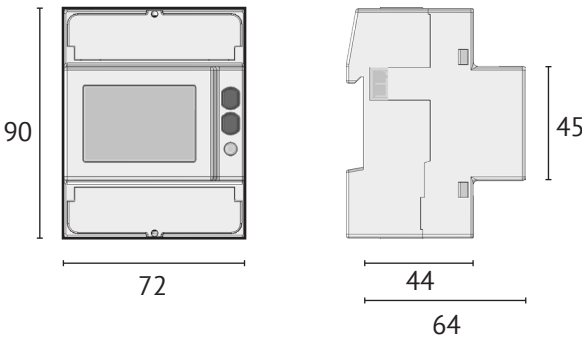
SAFETY

Pollution degree (IEC 62052-31)	2
Protective class (IEC 62052-31)	II
Rated impulse voltage	1,2 / 50 μ s 6 kV
AC voltage test (EN 50470-3)	4 kV
Housing material flame resistance	UL 94 class V0

ENVIRONMENTAL CONDITIONS

Mechanical environmental	M1
Electromagnetic environmental	E2
Operating temperature	-25°C ... +55°C
Storage temperature	-25°C ... +75°C
Relative humidity (without condensation)	max 80%
Altitude	up to 2000 m over sea-level
Protection degree of frontal panel / terminals	IP51 / IP20
Installation	internal use

» Technical drawing (mm)



ORDER CODE	MODEL	NOMINAL VOLTAGE AND FREQUENCY	POWER SUPPLY	CURRENT INPUT	COM PORT	S0 OUTPUT
1104.0050.0001	UEM80-4D E	3x230/400 ... 3x240/415 V 50/60 Hz	Self-powered	Direct, up to 80A	ETHERNET	1

NOTE: Subject to change without notice