Sagemcom



HOME ENERGY MANAGEMENT SYSTEM

HEMS gives you real time visibility of injection, voltage and power quality at each connection point to control devices to relieve congestion.

WHY A HOME ENERGY MANAGEMENT SYSTEM FOR DSOs ?

From DATA to a balanced grid.

FOR DSOS

Keep the grid in balance

Precise data on every site, less energy pushed to the grid.

FOR YOUR END CUSTOMERS

Lower bills, new revenue

Self-consumption, aggregation and paid demand response.

READY FOR THE FUTURE

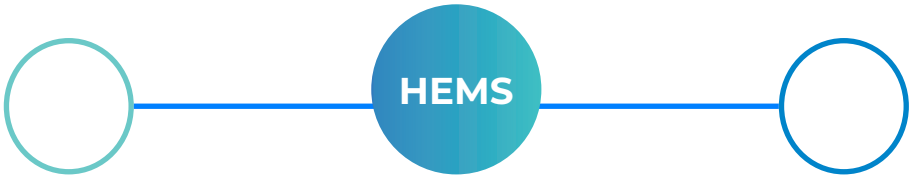
Connect broadly

PV, grid, heavy loads, meters, cloud and apps.

Secure by design

CRA, TPM 2.0, secure boot, encrypted storage.

THE MISSING LINK FROM THE SITE TO THE DSO



ON-SITE
PV production
Metering & Sub-metering
EV charging · battery

Secure Linux platform
Edge Computing (AI)
Third Party Apps

DSO SIDE
Grid visibility
Congestion management
Load shedding

9 Communication ports on board

6 Radio protocols supported

10 Pears of platform evolution

BUILT FOR FIELD OPERATIONS

Metering you can trust

MID Compliance: Certified-grade power quality metrology on production, grid exchange and each load: energy, power, voltage and power factor measured continuously.

Scales to any site

Proven platform: the common foundation of our smart metering gateways across Europe. Add only the devices you need: 3 three-phase or 6 single-phase channels, plus dedicated current-clamp inputs, one installation at a time.

Talk to every energy asset

A wide set of communication ports : Wi-Fi 6, Thread/Matter, Zigbee, wM-Bus, ModBus, RS485 and 3 × RJ45, with 4G as an option to reach PV inverters, batteries, water heaters, heat pumps and EV chargers.

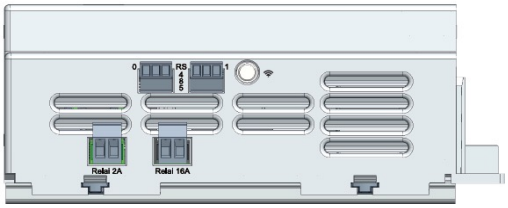
Technical characteristics

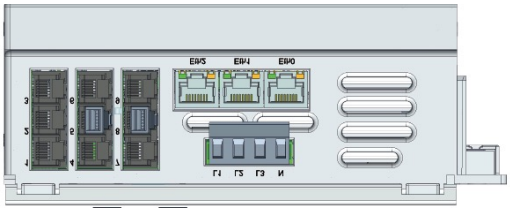
ELECTRONICS		
Characteristic	**Value / count**	**Details**
Processor	NXP i.MX93	Linux MPU for application and platform services.
Memory	2 GB LpDDR4 / 32 GB eMMC	RAM x 16 bits; eMMC flash storage.
Metering modules	EMS 6 / EMS 9	EMS 6: 2 three-phase or 6 single-phase; EMS 9: 3 three-phase or 9 single-phase; Class 2 target.
Ethernet	3 x RJ45	10/100 Mbit/s, up to 100 m; own MAC and IP per port.
RS485	2 ports	Removable terminal blocks; 9,600 / 19,200 / 115,200 bps.
Relays	1 x 16 A, 1 x 2 A	16 A normally closed; 2 A normally open.
Embedded radios	Wi-Fi 6, BLE 5.1, Zigbee 3.0, Thread / Matter 1.4, wMBus	Wi-Fi client and simultaneous AP; wMBus 868 MHz T1/T2, C1/C2 (EN 13757-4).
Security element	TPM 2.0	Common Criteria EAL 4+; protected key storage, attestation, anti-rollback.
Power reserve	Last Gasp	At least one minute with internal peripherals active, configurable.

SOFTWARE		
Characteristic	**Value / count**	**Details**
Operating system	Linux / Yocto LTS Scarthgap	Ongoing evolution to Wrynose.
Update mechanism	RAUC + A/B slots	Atomic updates with signature verification and rollback via secure boot.
Secure boot	Full chain of trust	Boot ROM, U-Boot SPL, OP-TEE, U-Boot Main, kernel, initramfs and rootfs.
Rootfs protection	dm-crypt + dm-verity	Confidentiality and integrity via TPM-sealed secrets and root hash.
BSP	Bootloader, kernel, device tree, firmware	Integration guide, test image, driver validation and release notes.
Drivers	Standard Linux interfaces	Network, tty, GPIO/libgpiod, LEDs, BlueZ, OpenThread, Zigbee2MQTT, /dev/tpm.
Logs and diagnostics	dmesg / journalctl / syslog	Power loss, watchdog, connection status, failures and security events.

Mechanicals, installation and options

MECHANICALS AND INSTALLATION		
Characteristic	Value / count	Details
Installation	DIN rail in electrical panel	Standard electrical cabinet with door; connectors under panel protections.
Width	10 U	Including optional 4G modem.
Enclosure	Plastic, clipped	Recycled plastics where possible.
Tamper evidence	Void label + opening detection	Opening generates an alarm; notification sent when power and WAN are available.
4G option	Removable LTE Cat-M1 modem	3FF SIM holder, eSIM footprint (may replace the SIM holder), SMA antenna.
Current clamps	RJ11 inputs	EMS 6: 6 RJ11; EMS 9: 9 RJ11; calibrated interchangeable clamps, 80 cm cable extension option.





DIRECTIVES, STANDARDS AND ENVIRONMENT		
Characteristic	Value / count	Details
Temperature	Storage -40/+70 °C; operating -20/+60 °C	Electrical cabinet ambient conditions.
Humidity / altitude	90% at 40 °C / 3000 m	Environmental operating constraints.
Ingress protection	IP2X	Applies to nYuze and 4G modem.
Mechanical resistance	IEC 60068-2-34 / CEI 60898-1 / NF EN 50102 IK06	Drop, DIN rail mechanical constraints and 1 J impact on front face.
Electrical safety	NF EN 62368-1	Category III, pollution degree 2.
CE marking / RED	Directive 2014/53/EU	Evidence for essential requirements, including cybersecurity article 3.3(d), 3.3(e), 3.3(f).
Cyber resilience	CRA alignment	Vulnerability management, security updates and documentation for delivered software components.

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