/ EDMM-20

SMA Data Manager M

Full of Ideas. Full of Potential. Full of Energy.

powered by ennexOS

Fast and easy to use
- Easy integration into new and existing systems
- Integrated inputs and outputs for digital and analog signals; no additional hardware required

Flexible and secure
- Option to connect up to 50 devices
- Enhanced cybersecurity
- Trusted platform module (TPM)
- Over-the-air updates

High performance
- More CPU power thanks to new processor
- Complies with international grid-integration requirements
- Combines energy generation, battery systems and e-mobility
- Energy management for battery systems

Reliable and practical
- Remote monitoring and parameterization possible
- Detailed analytics, error messages and reports through Sunny Portal powered by ennexOS

The SMA Data Manager M is the core element of decentralized commercial PV systems. Combined with Sunny Portal powered by ennexOS, it enables monitoring, management and grid-compliant power control at the point of interconnection.

A future-proof decision: The SMA Data Manager M supports up to 50 devices and provides inputs and outputs for digital and analog signals in order to ensure the necessary flexibility in meeting a wide range of different requirements. With a capacity of 2.5 MVA in closed-loop control mode or 7.5 MVA open-loop control mode and monitoring mode, the SMA Data Manager M is the ideal professional interface for electric utility companies, direct sellers, service technicians and PV system operators. Coordinated user interfaces and intuitive assistance functions simplify operation, parameterization and commissioning, making the SMA Data Manager M the preferred choice for PV application and installation.

SMA DATA MANAGER M

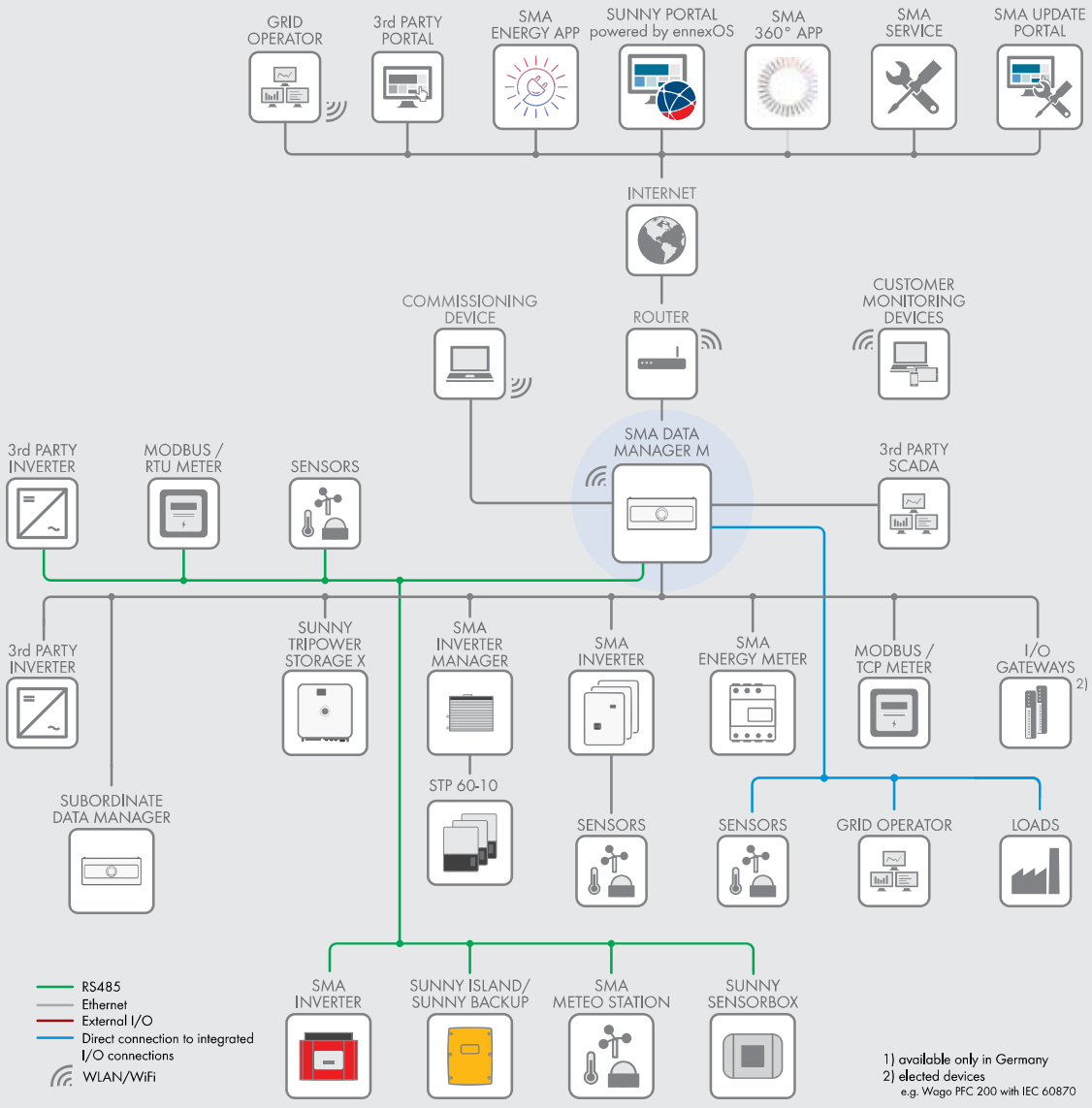
Professional monitoring and control for decentralized energy systems up to the megawatt range.

They are controlled through Sunny Portal powered by ennexOS, which enables the remote management of PV systems. You can manage multiple inverters with just one click, adjust parameters and monitor performance in real time. This saves time and minimizes costs. Centralized management for decentralized large-scale PV power plants is possible thanks to satellite-based data and cluster solutions with multiple data managers. Connectivity options include 3x Ethernet switched, 2x RS-485 and Wi-Fi (for direct connection).
With expanded memory (e.g., for logging setpoint specifications) and over-the-air updates, the system is capable of responding flexibly to changing requirements.

Benefits at a glance:

- Centralized management for decentralized large-scale PV power plants thanks to satellite-based data and cluster solutions with multiple data managers
- Remote parameterization saves time and money
- Different energy management profiles for battery storage systems
- Automatic monitoring of PV components thanks to SMA Smart Connected

System diagram



Technical data	SMA DATA MANAGER M
System Manager	
Total number of supported devices per EDMM-20 - of which combination can include:	50
Maximum number of SMA Speedwire PV inverters	50
Maximum number of 3rd party PV inverters, via Modbus/TCP SunSpec	50
Maximum number of SMA battery inverters	50
Maximum number of energy meters	50
Maximum nominal system power of PV and battery inverters (nominal AC power)	2.5 MVA (closed-loop control) 7.5 MVA (open-loop control or only monitoring)
Automatic data recording for virtual generators from energy meters (PV inverter, combined heat and power plant, gas meter, diesel generator, hydroelectric power plant)	●
Connections	
Voltage supply	2-pin connection, MINI COMBICON
RS485	2x 6-pole connection, MINI COMBICON
Network (LAN)	3x RJ45 10BaseT/100BaseT
Wi-Fi access point for commissioning and access to the user interface	●
Additional connections	10x digital in, 1x fast stop, 5x multifunction relay (MFR), 4x analog in (0 mA to 20 mA), 4x analog out (0 mA to 20 mA), 2x temperature (PT100), 1x reset button
Voltage supply	
Voltage supply	External DC power supply
Input voltage	10 V to 30 V DC
Power consumption	Typically 8 W
Ambient conditions during operation	
Environment	Restricted class 3K7 reg. IEC60721-3-3
Ambient temperature	-4 °F to 140 °F (-20 °C to + 60 °C)
Permissible range for relative humidity (non-condensing)	5% to 95%
Maximum operating altitude above MSL	0 ft to 9842ft (0 m to 3000m, ≥70 kPa)
Degree of protection according to IEC 60529	IP20 (NEMA 1)
General data	
Dimensions (W/H/D)	8.5in / 3.54in / 2.68in (216mm / 90mm / 68mm)
Weight	0.82lbs (372g)
Mounting location	Indoors
Mounting type	DIN rail mounting
Status display	LEDs for system and communication status
Equipment	
Warranty	2 years
Certificates and approvals (more available on request)	www.SMA-America.com
Communication / protocols	
FTP push (daily / hourly)	● / ●
Wi-Fi access to customer network / direct to WebUI	– / ●
SMA Speedwire / SMA RS485	● / ●
Client: Modbus/RTU, Modbus/TCP (also Sunspec)	●
Server: Modbus/TCP (as subordinate in SCADA)	●
Commissioning	
Assistant for local commissioning of connected devices	●
Assistant for parameterization of SMA Speedwire devices at device level/system level	● / ●
Configuration of energy meter (measurement at point of interconnection)	●
System and device monitoring	
Comprehensive visualization of power and energy values, status and events	●
Updates	
Manual FW updates via WebUI	●
Automatic FW update of EDMM-20 and Speedwire devices via SMA Update Portal	●
Grid Management Services	
Closed-loop control and open-loop control of other SMA Data Managers (EDMM-10/20) as subordinate devices	●
Various options for open-loop and closed-loop control of active and reactive power	●
Manual specification of active and reactive power via WebUI	●
External setpoints via Modbus/TCP controller	●
Open-loop and closed-loop active power control via analog or digital inputs	●
Open-loop and closed-loop reactive power control via analog or digital inputs (Q(U), Q(P))	●
Fast shutdown via the digital input	●

Technical data	SMA DATA MANAGER M
Energy management	
Self-consumption control using battery systems (with SBSE-US-50, STPS X-US-20)	●
Peak load shaving (with STPS X-US-20)	●
Optimization of battery systems with time-of-use rates (STPS X-US-20)	●
Threshold-based switching of digital outputs	●
Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M	
Parameterization	
Remote parameterization of Data Manager and suitable connected devices	●
System and device monitoring, analysis	
Comprehensive visualization of power and energy values, status and events	●
Energy monitoring of a large number of systems in one user account	●
Energy balance visualization (PV and battery, grid-supplied and feed-in power, requires external energy meter at POI)	●
Data recording for virtual generators from additional energy meters (legacy PV, CHP plant, gas meter, diesel generator, hydroelectric power plant)	●
Measured value evaluation of all data channels of systems and devices	●
Automatic inverter comparison with alerts	●
Satellite-based meteorological data for performance evaluation (for select countries)	●
Reporting	
Alerts in case of loss of internet access	●
Preconfiguration reports by e-mail via ennexOS Sunny Portal (e.g. daily/monthly production)	●
Service	
SMA Smart Connected	●
Remote support through SMA Service	●
Use of SMA 360° app	-
Use of SMA Energy app	●
SMA Monitoring and GridControl API	○
Type designation and SMA material number	EDMM-20

● Standard features ○ Optional – Not available Version: 10/2024 (Subject to changes)

Toll Free +1 888 4 SMA USA

www.SMA-America.com

SMA America, LLC